















































APPENDIX A

PROJECT WETLAND TABLE

TIDD-SUNNYSIDE 138 KV TRANSMISSION LINE REBUILD PROJECT	WEILAND I ABLE
---------------------------------------------------------	----------------

_	_		_	_	_	_		_	_		_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_
Z	l Impacts	Permanent Impact Area (acre)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
Μ	Proposed	Temporary Matting Area (acre) ²	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
L		Structure Installation Method	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
К		Proposed Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
ſ		Existing Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
_	Nearest	Structure # (Existing / Proposed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD								
Н	ORAM	Category	Category 1	Modified Category 2	Category 1	Category 1	Category 1	Modified Category 2	Category 1	Modified Category 2	Category 1	Category 2	Category 2	Category 2	Category 1														
ט		Score	15	16	29.5	20	25.5	20.5	21.5	28	30	28	26	10	40	17	37	15	25	29	21	13	15	13	11	54	54	54	17
F		Delineated Area (acre)	0.006	0.019	0.052	0.194	0.802	0.032	0.079	0.137	0.091	0.142	060.0	0.022	0.113	0.107	0.071	0.126	0.034	0.126	0.178	0.068	0.131	0.049	0.148	0.047	0.166	0.027	0.023
Е		Habitat Type	PEM	PEM	PEM	PEM	PFO	PEM	SSd	PEM	PEM	PEM	MEM	PEM	MEM	PEM	MEM	MEM	PEM	PEM	PEM								
D		Isolated?	Yes	Yes	No	No	No	Yes	Yes	Yes	No	Yes	Yes	Yes	No	No	No	Yes	No	No	Yes	Yes	Yes	Yes	Yes	No	No	No	No
C	tion	Longitude	-81.082534	-81.076506	-81.070406	-81.064169	-81.063172	-81.062678	-81.061685	-81.059988	-81.059758	-81.058535	-81.057939	-81.057066	-81.054256	-81.050686	-81.049833	-81.047833	-81.045120	-81.041796	-81.040406	-81.039494	-81.038914	-81.037863	-81.029551	-81.028817	-81.028438	-81.028283	-81.024670
В	Loca	Latitude	40.587240	40.582495	40.577851	40.573446	40.572671	40.572471	40.571749	40.570314	40.570079	40.569346	40.568830	40.568230	40.565908	40.563421	40.563116	40.561673	40.559648	40.557001	40.556244	40.555228	40.555271	40.554152	40.548522	40.548020	40.547614	40.546978	40.544375
A		Wetland ID	Wetland 01	Wetland 02	Wetland 03	Wetland 04	Wetland 05	Wetland 06	Wetland 07	Wetland 08	Wetland 09	Wetland 10	Wetland 11	Wetland 12	Wetland 13	Wetland 14	Wetland 15	Wetland 16	Wetland 17	Wetland 18	Wetland 19	Wetland 20	Wetland 21	Wetland 22	Wetland 23	Wetland 24	Wetland 25	Wetland 26	Wetland 27
	1	2	ω	4	5	9	7	ω	6	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

5/12/2021

F F G H I J J K L M N whee the field for the field f
FGHIJJKLMNPerform Auto Auto Auto AutoSetMatter AutoNote AutoMMNNPerform Auto AutoSetMatter AutoNote AutoNote AutoNote AutoMNNNPerform Auto33Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.00233Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.01334Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.02434Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.03534Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.03634Modified Cregory 2TBDTBDTBDTBDTBDTBDTBD0.03934Modified Cregory 2TBDTBDTBDTBDTBDTBD0.03934Modified Cregory 2TBDTBDTBDTBDTBDTBD0.03134Modified Cregory 2TBDTBDTBDTBDTBDTBD0.03234Modified Cregory 2TBDTBDTBDTBDTBDTBD0.03334Modified Cregory 2TBDTBDTBDTBDTBDTBD0.130131Modi
HJJJMMN00AMMarretsMarretsMarretsMarretsModelledMN00AMMarretsMarretsMarretsMarretsProposedPropertionProperiodsModified category 2TBDTBDTBDTBDTBDTBDTBDTBDModified category 2TBDTBDTBDTBDTBDTBDTBDModified category 2TBDTBDTBDTBDTBDTBDTBDModified category 1TBDTBDTBDTBDTBDTBDTBDModified category 1TBDTBDTBDTBDTBDTBDTBDModified category 1TBDTBDTBDTBDTBDTBDTBDModified category 1TBDTBDTBDTBDTBDTBDTBDModified category 1T
IJKLMNNNevert Structure# Forosect invetting proposedFundome invetting invett
J K L M M N Fisting trutture fination investing functione fination investing trutture fination investing functione finatione finatinditext finatione finatione
K L M N Proposed Structure # inwetland inwetland mathing Area (acce) ² Temporati mathing Area (acce) ² M N TBD<
L M N Structure installation method Froposet method Froposet method Mathods N Structure installation method Temporary method Froposet methods Temporary methods Froposet methods N TBD TBD TBD TBD TBD Froposet method RD TBD TBD TBD TBD TBD Froposet method RD TBD TBD TBD TBD TBD Froposet method RD TBD TBD TBD TBD TBD TBD TBD TBD
M N Proposati Impact Nead Temporary Permanent Matting Area Impact Nead (acre) ² (acre) TBD TBD
Permanent Impact Area (acre) el impact Area (acre)

5/12/2021

TIDD-SUNNYSIDE 138 KV TRANSMISSION LINE REBUILD PROJECT	WEILAND I ABLE
---------------------------------------------------------	----------------

N	d Impacts	Permanent Impact Area (acre)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Μ	Propose	Temporary Matting Area (acre) ²	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Γ		Structure Installation Method	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
К		Proposed Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	DBT	TBD	DBT	TBD	DBT	TBD	TBD
ſ		Existing Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
_	Nearest	Structure # (Existing / Proposed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Н	ORAM	Category	Category 1	Category 2	Category 1	Modified Category 2	Category 2	Category 2	Category 2	Modified Category 2	Modified Category 2	Modified Category 2	Modified Category 2	Modified Category 2	Modified Category 2	Modified Category 2	Category 1	Modified Category 2	Category 1	Category 1	Modified Category 2	Modified Category 2	Category 1	Category 1	Category 1	Category 1	Category 1	Category 1	Modified Category 2
ט		Score	11	59	14.5	41	57	50	50	32	32	32	32	32	33	33	20.5	32.5	18.5	18.5	34.5	34.5	28	10	11	15	15	13	31.5
ч		Delineated Area (acre)	0.062	0.614	0.012	0.423	0.020	0.085	0.425	0.652	0.691	0.118	0.074	0.026	0.335	0.042	2.005	0.704	0.040	0.008	0.395	0.146	0.003	0.676	0.963	0.387	0.051	0.007	0.411
Ш		Habitat Type	PEM	PSS	PEM	PEM	PEM	PEM	PSS	PEM	PEM	PSS	PFO	PEM	PEM	PFO	PEM	PEM	PEM	PEM	PEM	PFO	PEM	PEM	PEM	PEM	PUB	PUB	PUB
D		lsolated?	Yes	No	Yes	No	No	No	No	No	No	No	No	Yes	No	No	No	No	Yes	Yes	No	No	No	No	No	No	No	No	No
C	ıtion	Longitude	-80.936294	-80.934154	-80.930637	-80.928723	-80.924163	-80.918722	-80.918544	-80.910320	-80.903857	-80.903842	-80.903895	-80.898918	-80.898381	-80.898674	-80.894302	-80.887557	-80.886080	-80.883946	-80.882489	-80.881964	-80.882334	-80.880209	-80.878997	-80.874355	-80.873629	-80.873608	-80.873441
В	Loca	Latitude	40.475467	40.472851	40.467982	40.465647	40.459865	40.452052	40.452029	40.441012	40.432411	40.432223	40.432025	40.425578	40.425192	40.425021	40.419630	40.410047	40.408248	40.405455	40.403219	40.402880	40.402455	40.399860	40.397916	40.391479	40.391014	40.390723	40.390379
A		Wetland ID	Wetland 48	Wetland 49	Wetland 50	Wetland 51	Wetland 53	Wetland 54a	Wetland 54b	Wetland 55	Wetland 56a	Wetland 56b	Wetland 56c	Wetland 57	Wetland 58a	Wetland 58b	Wetland 59	Wetland 60	Wetland 61	Wetland 62	Wetland 63a	Wetland 63b	Wetland 64	Wetland 65	Wetland 66	Wetland 67a	Wetland 67b	Wetland 68	Wetland 69
	-	2	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83

5/12/2021

Z	l Impacts	Permanent Impact Area (acre)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
Σ	Proposed	Temporary Matting Area (acre) ²	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
L		Structure Installation Method	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
К		Proposed Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
ſ		Existing Structure # in Wetland	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
_	Nearest	Structure # (Existing / Proposed)	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD
н	ORAM	Category	Modified Category 2	Modified Category 2	Category 1	Category 1	Category 1	Category 2	Category 1	Category 1	Category 2	Category 2	Category 1	Modified Category 2	Modified Category 2	Category 1	Category 1	Category 1	Category 1	Modified Category 2									
ט		Score	37	31.5	13	18.5	17.5	45	17.5	16.5	55	55	27	43	43	17	25	6	6	16.5	16.5	13.5	27	36	31	33	31	36.5	36.5
ч		Delineated Area (acre)	0.000	0.391	0.017	0.020	0.029	0.074	0.003	0.062	0.489	0.262	0.018	0.073	0.017	0.006	0.094	0.087	0.061	0.135	0.190	0.066	0.040	0.370	0.014	0.021	0.006	0.346	0.012
Ш		Habitat Type	PSS	PUB	PEM	PEM	PEM	PFO	PEM	PEM	PEM	SSd	PEM	PEM	PFO	PEM	PEM	PEM	PEM	PEM	PSS	PEM	PEM	PEM	PEM	PEM	PEM	PEM	PFO
D		lsolated?	No	No	Yes	No	No	No	No	No	No	No	Yes	No	No	No	No	No	Yes	No	No	Yes	Yes	No	Yes	No	Yes	No	No
υ	ition	Longitude	-80.873698	-80.873035	-80.871537	-80.866876	-80.864507	-80.864344	-80.863242	-80.862495	-80.860644	-80.860248	-80.859989	-80.859222	-80.859417	-80.858831	-80.857866	-80.856933	-80.856682	-80.855903	-80.855900	-80.851990	-80.848202	-80.842664	-80.841568	-80.841199	-80.840784	-80.830424	-80.830514
В	Loca	Latitude	40.390069	40.389686	40.387038	40.381086	40.377609	40.376738	40.375528	40.374461	40.372026	40.371886	40.370984	40.369879	40.369750	40.369289	40.367729	40.366789	40.366453	40.365210	40.365048	40.359706	40.354111	40.347830	40.346783	40.346294	40.346348	40.334733	40.334305
A		Wetland ID	Wetland 70	Wetland 71	Wetland 72	Wetland 73	Wetland 74	Wetland 75	Wetland 76	Wetland 77	Wetland 78a	Wetland 78b	Wetland 79	Wetland 80a	Wetland 80b	Wetland 81	Wetland 82	Wetland 83	Wetland 84	Wetland 85a	Wetland 85b	Wetland 86	Wetland 87	Wetland 88	Wetland 89	Wetland 90	Wetland 91	Wetland 92a	Wetland 92b
Π	-	N	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100	101	102	103	104	105	106	107	108	109	110

5/12/2021

TIDD-SUNNYSIDE 138 KV TRANSMISSION LINE REBUILD PROJECT	WEILAND LABLE
---------------------------------------------------------	---------------

I

1 2 1111 112 113 114	A wetland ID wetland 93 wetland 94 wetland 95	B Loc Latitude 40.333198 40.333251 40.322876	ation aetion Longitude -80.829010 -80.829010 -80.819769	Isolated? Isolated? Yes Yes Yes	Habitat Type PSS PEM PEM	F Delineated Area (acre) 0.159 0.100 0.201 0.106	G Score 35 26.5 17 14	H ORAM Category 2 Category 1 Category 1 Category 1 Category 1	Nearest Structure # (Existing / Proposed) TBD TBD TBD TBD	J Existing Structure # in Wetland TBD TBD TBD	Reposed Structure # in Wetland TBD TBD TBD TBD	L Structure Installation Method TBD TBD TBD		M Propose Temporary Matting Area (acre) ² (acre) ² TBD TBD TBD TBD
115 116	Wetland 97 Wetland 98	40.313845 40.311940	-80.811242 -80.809354	No	PEM	0.128 0.175	33 15	Modified Category 2 Category 1	TBD TBD	TBD TBD	TBD TBD		TBD TBD	TBD TBD TBD TBD
117 118	Wetland 99a Wetland 99b	40.311116 40.310826	-80.808630 -80.808714	No No	PFO	0.610 0.180	27.5 27.5	Category 1 Category 1	TBD TBD	TBD TBD	TBD		TBD TBD	TBD TBD TBD TBD
119 120	Wetland 100 Wetland 101	40.30860516 40.30730611	-80.80645183 -80.80523233	No No	PEM	0.036 1.971	23.5 35.5	Category 1 Modified Category 2	TBD TBD	TBD TBD	TBD TBD		TBD TBD	TBD TBD TBD TBD TBD
121 122	Wetland 102 Wetland 103	40.30630854 40.30178284	-80.80405333 -80.79977273	No	PEM	1.153 0.125	37.5 27.5	Modified Category 2 Category 1	TBD TBD	TBD TBD	TBD TBD		TBD TBD	TBD TBD TBD TBD TBD
123 124	Wetland 104 Wetland 105	40.29064292 40.29002665	-80.79020173 -80.79003952	Yes	PEM	0.024	15 20	Category 1 Category 1	TBD TBD	TBD TBD	TBD TBD		TBD TBD	TBD TBD TBD TBD
125	Wetland 106	40.28580534	-80.78597524	Yes	PEM	0.106	18.5	Category 1 Category 1	TBD	TBD	TBD		TBD	TBD TBD
126 127	Wetland 107 Wetland 108	40.27748073 40.27981908	-80.77786697 -80.78107943	Yes	PEM	0.047 0.001	7 20.5	Category 1 Category 1	TBD	TBD TBD	TBD		TBD TBD	TBD TBD TBD
128	Wetland 109	40.27505685	-80.77522514	No	PEM	0.075	23	Category 1	TBD	TBD	TBD		TBD	TBD TBD
129	Wetland 110	40.264138	-80.76271634	No	PEM	0.135	34	Modified Category 2	TBD	TBD	TBD		TBD	TBD TBD
130	Wetland 111	40.25970448	-80.75751895	No	PEM	0.016	28	Category 1	TBD	TBD	TBD		TBD	TBD TBD
131	Wetland 112	40.25648922	-80.75098082	Yes	PEM	0.019	36	Modified Category 2	TBD	TBD	TBD		TBD	TBD TBD
132	Wetland 113	40.28607107	-80.78786341	No	PSS	0.013	38	Modified Category 2	TBD	TBD	TBD		TBD	TBD TBD
133	Wetland 114	40.34483904	-80.83923541	No	PEM	0.049	45	Category 2	TBD	TBD	TBD		TBD	TBD TBD
134	Wetland 115	40.38958372	-80.87855117	No	PSS	0.014	44	Modified Category 2	TBD	TBD	TBD		TBD	TBD TBD
135	Wetland 116a	40.56175588	-81.04658173	Yes	PEM	0.039	25	Category 1	TBD	TBD	TBD		TBD	TBD TBD
136	Wetland 116b	40.56165271	-81.04675088	Yes	PSS	0.022	25	Category 1	TBD	TBD	TBD		TBD	TBD TBD
37	Wetland 117	40.54676236	-81.02935617	No	PSS	0.154	40	Modified Category 2	TBD	TBD	TBD	-	TBD	TBD TBD

5/12/2021

TIDD-SUNNYSIDE 138 KV TRANSMISSION LINE REBUILD PROJECT WETLAND TABLE

	A	В	υ	Δ	ш	ш	ט	H	_	ſ	×		Σ	Z
-		Loc	ation					ORAM	No arect				Proposed	Impacts
2	Wetland ID	Latitude	Longitude	Isolated?	Habitat Type	Delineated Area (acre)	Score	Category	Structure # (Existing / Proposed)	Existing Structure # in Wetland	Proposed Structure # in Wetland	Structure Installation Method	Temporary Matting Area (acre) ²	Permanent Impact Area (acre)
138	Wetland 118	40.54568277	-81.02962072	No	PEM	0.082	36	Modified Category 2	TBD	TBD	TBD	TBD	TBD	TBD
139	Wetland 119	40.51993852	-80.99316756	No	PEM	0.020	34	Modified Category 2	TBD	TBD	TBD	TBD	TBD	TBD
140					Total:	24.461							0.000	0.000

Please note that the information presented in this table may not be verified by applicable regulatory agencies.

5/12/2021

APPENDIX B

U.S. ARMY CORPS OF ENGINEERS WETLAND DATA FORMS

OEPA WETLAND ORAM FORMS

DELINEATED FEATURES PHOTOGRAPHS (WETLANDS)

Wetland 01

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 05-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Samp	bling Point: W-MRK-002 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range:	S 32 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex	x, none): concave Slope: <u>1.0%</u> / <u>0.6</u> °
Subregion (LRR or MLRA): LRR N	Lat.: 40.587274	Long.: -81.082520 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Cosh	nocton silt loams, 8 to 15 percent slopes	VI classification: N/A
Are climatic/hydrologic conditions on the site typ	ical for this time of year? Yes \odot No \bigcirc (If	no, explain in Remarks.)
Are Vegetation Soil or Hydrolog	av significantly disturbed? Are "Norn	nal Circumstances" present? Yes No
		d. overlain anv anavora in Romarka)
		d, explain any answers in Remarks.)
Summary of Findings - Attach site	map showing sampling point locati	ions, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 🔍	No O	
Hydric Soil Present? Yes •	No O Is the Sampled Area	a Yes ● No ○
Wetland Hydrology Present? Yes 🔍	No O within a Wetland?	
depression. Wetland is open ended outside the	current study area. The wetland boundary follow	s edge of depression.
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; c	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	✓ Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
I I Mathew Chains and Leasure (DO)		
Water-Stained Leaves (B9)		Microtopographic Relief (D4)

Aquatic Fauna (B13)		FAC-neutral Test (D5)					
Field Observations:	<u> </u>	\sim					
Surface Water Present?	Yes \bigcirc	No 🔍	Depth (inches):				
Water Table Present?	Yes 🖲	No \bigcirc	Depth (inches):	3		X	
Saturation Present? (includes capillary fringe)	Yes 🖲	No \bigcirc	Depth (inches):	3	Wetland Hydrology Present?	res 💌	
Describe Recorded Data (stream gaug	ge, monitor	ring well, aerial photos, p	previous insp	pections), if available:		
Remarks:							
Source of hydrology is sp	ring seeps a	nd surface	runoff.				

	Wetland	01
--	---------	----

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

		Dominant		Sampling Point: <u>W-MRK-002 PEM</u>
	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:(A)
2				Total Number of Dominant
3				Species Across All Strata:(B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC:100.0% (A/B)
6				
7				Prevalence Index worksheet:
8		0.0%		I otal % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:) :	= Total Cover		OBL species $100 \times 1 = 100$
1	0	0.0%		FACW species $25 \times 2 = 50$
2	0	0.0%		FAC species $0 \times 3 = 0$
3	0	0.0%		FACU species $15 \times 4 = 60$
Δ	0	0.0%		UPL species $0 \times 5 = 0$
T5	0	0.0%		Column Totals: <u>140</u> (A) <u>210</u> (B)
6	0	0.0%		Prevalence Index – $B/A = 1.500$
7	0	0.0%		
8	0	0.0%		Hydrophytic Vegetation Indicators:
0	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		✓ Dominance Test is > 50%
	0.	= Total Cover		✓ Prevalence Index is ≤3.0 [⊥]
Shrub Stratum (Plot size:)	0			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
۵ ۵	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
	0 :	= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5 radius</u>)	75	F 2 (0)		Sapling/shrub stratum – Consists of woody plants, excluding
		17.00/		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Persicaria sagittata	25	17.9%		Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Phalaris arundinacea		10.7%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
4. Crisium arvense			TACO	ft in height.
5				
0				Five Vegetation Strata:
/				Tree - Woody plants, excluding woody vines, approximately
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and
11				Shruh stratum - Consists of woody plants excluding woody
12	- 0			vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	140 :	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		Hudrophytic
6	0	0.0%		
	0	= Total Cove	r	Present? Yes \bullet No \bigcirc
Remarks: (Include photo numbers here or on a separate she				

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Wetland 01

Sampling Point: ______W-MRK-002 PEM

Soil						1	Sampling Point: W-	MRK-002 PEM
Profile Desc	ription: (Describe to	the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indicators.)
Denth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-18	10YR 4/1	85	7.5YR 5/6	15	C	M,PL	Silty Clay Loam	5% oxidized rhizospheres
					-			
								· · · · ·
			. <u> </u>					
¹ Type: C=Cor	ncentration. D=Depletic	on. RM=Red	uced Matrix, CS=Cove	red or Coat	ted Sand Gr	ains ² Loc	ation: PL=Pore Lining. M	=Matrix
Hydric Soil	Indicators:						Indicators for Pro	blematic Hydric Soils ³ :
Histosol ((A1)		Dark Surface	(S7)			2 cm Muck (A1	0) (MI PA 147)
Histic Epi	ipedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)		(MERA 147)
Black His	tic (A3) Sulfide (A4)		Thin Dark Sur	face (S9) (I	MLRA 147,	148)	(MLRA 147,148	edox (A16) ;)
Stratified	Layers (A5)		Depleted Matr	ix (F3))		Piedmont Flood (MLRA 136, 14	lplain Soils (F19) 7)
🗌 2 cm Muo	ck (A10) (LRR N)		Redox Dark Su	urface (F6)			Very Shallow D	ark Surface (TF12)
Depleted	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain	in Remarks)
Thick Da	rk Surface (A12)		Redox Depres	sions (F8)				
Sandy Mu MLRA 14	uck Mineral (S1) (LRR 7, 148)	Ν,	Iron-Mangane MLRA 136)	se Masses	(F12) (LRR	Ν,		
Sandy GI	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 1	22)	3	
Sandy Re	edox (S5)		Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	³ Indicators wetland h	of hydrophytic vegetation and hydrology must be present.
Stripped	Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)				unless	disturbed or problematic.		
Restrictive L	ayer (if observed):							
Туре:								
Depth (ind	ches):						Hydric Soil Present?	' Yes 🔍 No 🔾
Remarks:								

Upland 01

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 05-Nov-18					
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling	Point: W-MRK-002 UPL					
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S	32 T Center - 14N R 5W					
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, no	ne): Slope: / °					
Subregion (LRR or MLRA): LRR N Lat.:	40.587148 Long	-81.082498 Datum: NAD83					
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8 to 15 percent slopes NWI classification: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? Yes $ullet$ No $igodom$ (If no, explain in Remarks.)							
Are Vegetation 🔽 , Soil 🗌 , or Hydrology 🗌 significant	ly disturbed? Are "Normal C	ircumstances" present? Yes \bigcirc No $oldsymbol{igodol}$					
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? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No • No • No •	Is the Sampled Area within a Wetland?	Yes \bigcirc No \textcircled{ullet}
Remarks: Upland data point for W-MRK-002.	Surroundir	ig land use is maintained lawn		

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check	k all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes 🔾 No 🔍	Depth (inches):	
Water Table Present? Yes O No O	Depth (inches):	
Saturation Present? Yes O No •	Depth (inches):	rology Present? Yes 🔾 No 🖲
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if avai	lable:
Remarks:		
No source of hydrology.		
VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Dominant		Sampling Point: <u>W-MRK-002 UPL</u>
(Plot size: 20' radius)	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
Iree Stratum (Flot size: <u>so fadius</u>)	10	Cover	EACU	Number of Dominant Species
1. Jugians nigra	0	0.0%	TACO	That are OBL, FACW, or FAC: (A)
2.				Total Number of Dominant
3	0	0.0%		Species Across All Strata:(B)
4	0	0.0%		Percent of dominant Species
5	0	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0	0.0%		Prevalence Index worksheet
9	0	0.0%		Total % Cover of: Multiply by:
0	10	= Total Cover	-	OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot size:)			FACW species $0 \times 2 = 0$
1	0	0.0%		FAC species 0 x 3 = 0
2	0	0.0%		EACH species $\frac{180}{180} \times 4 = \frac{720}{180}$
3	0	0.0%		
4	0	0.0%		$\begin{array}{c} \text{UPL spectres} & \underline{\qquad} & x \text{ s} = \underline{\qquad} \\ 100 & (x \text{ s} = \underline{\\qquad} \\ 100 & (x \text{ s} = \underline{\\m} \\ 100 & ($
5	0	0.0%		Column Totals: 180 (A) 720 (B)
6	0	0.0%		Prevalence Index = $B/A = 4.000$
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		Dominance Test is > 50%
10	0	0.0%		Prevalence Index is \leq 3.0 1
Shrub Stratum (Plot size:)	0	= Total Cover	r	Morphological Adaptations ¹ (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6.	0	0.0%		Four Vegetation Strata:
7.	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: 5' radius)	0	= Total Cove	-	regardless of height.
1 Glechoma hederacea	60	✓ 35.3%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
2 Dactvlis olomerata	60	✓ 35.3%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3 Trifolium repens	25	14.7%	FACU	plants, regardless of size, and all other plants less than 3.28
4 Cirsium arvense	25	14.7%	FACU	Woody vines – Consists of all woody vines greater than 3.28
5.	0	0.0%		ft in height.
6.	0	0.0%		Eive Vegetation Strate
7.	0	0.0%		
8	0	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0	0.0%		diameter at breast height (DBH).
10	0	0.0%		Sapling stratum – Consists of woody plants, excluding
11	0	0.0%		less than 3 in. (7.6 cm) DBH.
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
	170	= Total Cove	-	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		0.0%		plants, including herbaceous vines, regardless of size, and
1				woody species, except woody vines, less than approximately
۲ <u>۲</u>				
3				height.
5				Hydrophytic
б				Vegetation Present? Yes ○ No ●
			1	

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation has been recently mowed.

Sampling Point: W-MRK-002 UPL

Soil							Sampling Point: W-M	RK-002 UPL
Profile Desc	ription: (Describe to	the depth	needed to documer	t the indi	cator or co	onfirm the	absence of indicators.)	
Denth	Matrix		Re	dox Featu	ires			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-16	10YR 4/3	80	10YR 5/6	20	С	М	Silt Loam	
		-		-		-	,)	
				-				
			· ·					
							,	
¹ Type: C=Cor	centration. D=Depletic	on. RM=Red	uced Matrix, CS=Cove	red or Coat	ted Sand Gr	ains ² l oc	ation: PI =Pore Lining, M=I	Matrix
Hydric Soil	Indicators:							
Histosol	(A1)		Dark Surface	(57)			Indicators for Proble	ematic Hydric Soils":
	ipedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black His	stic (A3)		Thin Dark Sur	face (S9) (I	MLRA 147,	148)	Coast Prairie Red (MLRA 147,148)	эх (A16)
Hydrogei	n Sulfide (A4) I Layers (A5)		Loamy Gleyed Depleted Matr	Matrix (F2 ix (F3))		Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)
🗌 2 cm Mu	ck (A10) (LRR N)		Redox Dark S	urface (F6)			Very Shallow Dar	k Surface (TF12)
Depleted	Below Dark Surface (A	11)	Depleted Dark Surface (F7)				Other (Explain in	Remarks)
Thick Da	rk Surface (A12)		Redox Depressions (F8)				<u> </u>	
Sandy M	uck Mineral (S1) (LRR I 7, 148)	Ν,	Iron-Mangane MLRA 136)	se Masses	(F12) (LRR	Ν,		
Sandy G	eved Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 1	22)		
Sandy Re	edox (S5)		Piedmont Floo	odplain Soil	s (F19) (ML	RA 148)	³ Indicators of	hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent M	aterial (F21	.) (MLRA 12	7, 147)	unless di	sturbed or problematic.
Restrictive I	_ayer (if observed):							
Туре:								\sim
Depth (inc	ches):						Hydric Soil Present?	Yes 🔾 No 🖲
Remarks:								







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Wetland 01	
Date:	
November 5, 2018	
Description:	
PEM	
Modified Category 2	
Facing South	







Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

Wetland 01	
Date:	
November 5, 2018	
Description:	
PEM	
Modified Category 2	
Soil Pit	

......

WEILAND DETERMINATION	N DATA FORM - Eastern Mountains and Piedmont Region
Project/Site: East Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 05-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-001 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 32 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): concave Slope: 1.0% / 0.6 °
Subregion (LRR or MLRA): LRR N Lat	Long.: -81,076484 Datum: NAD83
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt loams, 1	5 to 25 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	Fyear? Yes \odot No \bigcirc (If no, explain in Remarks.)
Are Vegetation 🗹 , Soil 🗌 , or Hydrology 🗌 significa	ntly disturbed? Are "Normal Circumstances" present? Yes O No 🖲
Are Vegetation , Soil , or Hydrology natural	v 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 $ullet$ No $igodot$	
Hydric Soil Present? Yes • No ·	Is the Sampled Area Yes No
Wetland Hydrology Present? Yes 🔍 No 🔾	within a Wetland?
Hydrology	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) Surface Soil Cracks (B6)
Surface Water (A1)	ants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	le Odor (C1) Drainage Patterns (B10)
Saturation (A3)	pheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	duced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	duction in Tilled Soils (C6)
Drift deposits (B3)	ace (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Uther (Explain i	n Remarks) Stunted or Stressed Plants (D1)
✓ Iron Deposits (B5)	Geomorphic Position (D2)
Water-Stained Leaves (B9)	Shallow Aquitard (D3)
Aguatic Fauna (B13)	$\mathbf{\nabla} = FAC-neutral Test(D5)$
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):
Water Table Present? Yes No Depth (inches):8
Saturation Present? (includes capillary fringe) Yes No Depth (inches):8 Wetland Hydrology Present? Yes • No U
Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Kemarks:	
Source of hydrology is spring seeps.	

Wetland 02 VEGETATION (Five/Four Strata)- Use scientific names of plants.

VEGETATION (TWE/TOUT Strate)- 05e scien	itine na	Dominant		Sampling Point: <u>W-MRK-001 PEM</u>		
	Absolute	-Species? - Rel.Strat.	Indicator	Dominance Test worksheet:		
(Plot size:)	% Cover	Cover	Status	Number of Dominant Species		
1				That are OBL, FACW, or FAC:(A)		
2		0.0%		Total Number of Dominant		
3		0.0%		Species Across All Strata: <u>2</u> (B)		
5	0	0.0%		Percent of dominant Species		
6	0	0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
7	0	0.0%		Prevalence Index worksheet:		
8	0	0.0%		Total % Cover of: Multiply by:		
	0 =	= Total Cove	r	OBL species $0 \times 1 = 0$		
Sapling-Sapling/Shrub Stratum (Filt Size.)	0.0%		FACW species90 x 2 =180		
1		0.0%		FAC species $0 \times 3 = 0$		
2.		0.0%		FACU species 15 x 4 = 60		
3		0.0%		UPL species $0 \times 5 = 0$		
5	0	0.0%		Column Totals: <u>105</u> (A) <u>240</u> (B)		
6	0	0.0%	-	Prevalence Index – B/Λ – 2,286		
7	0	0.0%				
8.	0	0.0%		Hydrophytic Vegetation Indicators:		
9	0	0.0%				
10	0	0.0%		V Dominance rest is $> 50\%$		
Shruh Stratum (Plot size	0 =	= Total Cove	r	Morphological Adaptations 1 (Provide supporting		
1	0	0.0%		data in Remarks or on a separate sheet)		
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must		
4	0	0.0%		be present, unless disturbed or problematic.		
5	0	0.0%		Definition of Vegetation Strata:		
6	0	0.0%		Four Vegetation Strata:		
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH)		
Herb Stratum (Plot size: <u>5' radius</u>)		= Total Cove	r	regardless of height.		
1. Poa palustris	50	47.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1 m) tall.		
2. Cyperus esculentus	40	✔ 38.1%	FACW	Herb stratum – Consists of all herbaceous (non-woody)		
3. Trifolium repens	15	14.3%	FACU	plants, regardless of size, and all other plants less than 3.28 ft tall.		
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft in height.		
5	0	0.0%				
6	0	0.0%		Five Vegetation Strata:		
7	0	0.0%		Tree - Woody plants, excluding woody vines, approximately		
8	0			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH)		
9	0			Sapling stratum – Consists of woody plants, excluding		
10	0			woody vines, approximately 20 ft (6 m) or more in height and		
11				Shrub stratum – Consists of woody plants, excluding woody		
12	 105	- Total Cove		vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)			•	Herb stratum – Consists of all herbaceous (non-woody)		
1	0	0.0%		woody species, except woody vines, less than approximately		
2	0	0.0%		3 ft (1 m) in height.		
3	0			Woody vines – Consists of all woody vines, regardless of height.		
4						
5	0	0.0%		Hydrophytic		
6	0	<u>0.0%</u>		Vegetation Present? Yes No		
	<u> </u>	= Total Cove	F			

Remarks: (Include photo numbers here or on a separate sheet.) Wetland has been recently mowed.

Soil

Sampling Point: W-MRK-001 PEM

Profile Descri	ption: (Describe to	the depth n	eeded to documen	t the indic	ator or co	nfirm the	absence of indicators.)		
Depth	Matrix		Re	dox Featu	res				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Ren	narks
0-16	10YR 3/1	80	10YR 5/8	20	C	M,PL	Silty Clay Loam	5% 0X1012	eu mizospheres
				_					
				-			-	· · ·	
					- <u></u>				
								0	
								1	
¹ Type: C=Cond	entration. D=Depletio	on. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ed Sand Gra	ains ² Loca	ation: PL=Pore Lining. M	=Matrix	
Hydric Soil I	ndicators:						Indicators for Prob	lematic Hvdr	ic Soils ³ :
Histosol (A	A1)		Dark Surface (S7)			2 cm Muck (A1) (MI DA 147)	
Histic Epip	edon (A2)		Polyvalue Belo	w Surface (S8) (MLRA	147,148)))(MERA 147)	
Black Hist	c (A3)		Thin Dark Surf	ace (S9) (N	1LRA 147, 1	.48)	(MLRA 147,148)	dox (A16))	
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2)			Piedmont Flood	plain Soils (F19))
Stratified	Layers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147	?)	,
2 cm Much	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Da	ark Surface (TF	12)
Depleted I	Below Dark Surface (A	.11)	Depleted Dark	Surface (F	7)		Other (Explain i	n Remarks)	
Thick Dark	Surface (A12)		Redox Depress	ions (F8)					
Sandy Mu MLRA 147	ck Mineral (S1) (LRR N , 148)	۷,	Iron-Manganes MLRA 136)	e Masses (F12) (LRR	Ν,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (MI	RA 136, 12	2)	3 - 1	<u></u>	
Sandy Red	lox (S5)		Piedmont Floo	dplain Soils	(F19) (MLI	RA 148)	^o Indicators c wetland h	r hydrophytic v ydrology must	egetation and be present,
Stripped N	1atrix (S6)		Red Parent Ma	terial (F21)	(MLRA 12	7, 147)	unless	disturbed or pro	oblematic.
Postrictive I :	war (if observed):								
Type'	iyei (ii obseiveu).								
Depth (incl	les).						Hydric Soil Present?	Yes 🖲	No 🔿
Deptil (inci									
Remarks:									

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 05-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point:	W-MRK-001 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 32	T Centr - 14N R 5
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none):	convex Slope: <u>3.0%</u> / <u>1.7</u> °
Subregion (LRR or MLRA): LRR N Lat.:	40.582510 Long.: -81	.076270 Datum: NAD83
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt loams, 15	to 25 percent slopes NWI classifica	tion: N/A
Are climatic/hydrologic conditions on the site typical for this time of y Are Vegetation 🖌 , Soil 🗌 , or Hydrology 🗌 significant	ear? Yes No (If no, explain ly disturbed? Are "Normal Circums	in Remarks.) tances" present? Yes O No 👁
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p	oroblematic? (If needed, explain a	ny answers in Remarks.)
Summary of Findings - Attach site map showing s	sampling point locations, tra	nsects, important features, etc.
Hydrophytic Vegetation Present? Yes O No 🖲		

Hydric Soil Present?	Yes O		Is the Sampled Area	Yes \bigcirc No \bigcirc
Wetland Hydrology Present?	Yes 🔾	No 🖲	within a wetland?	
Remarks: Upland data point for W-MRK-001.	Surroundin	g land use is maintained golf o	course.	

Hydrology

Wetland Hydrology Indicators:	S	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that	apply)	Surface Soil Cracks (B6)
Surface Water (A1)	atic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	n Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	on Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	k Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Ex	(plain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	. , , , , , , , , , , , , , , , , , , ,	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes 🔾 No 🔍 Depth (i	inches):	
Water Table Present? Yes O No O Depth (i	inches):	
Saturation Present? (includes capillary fringe) Yes No Depth (i	inches):	ogy Present? fes ⊂ No ⊜
Describe Recorded Data (stream gauge, monitoring well, aeri	al photos, previous inspections), if availab	ble:
Remarks:		
No source of hydrology.		
,		

	U	pla	nd	02
--	---	-----	----	----

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

		De	ominant		Sampling Point: <u>W-MRK-001 UPL</u>
(District)		Re	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	-70 COVEI		over	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC: (A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:3(B)
4	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC:0.0% (A/B)
0 7	0		0.0%		Brouplance Index workshoet
0	0		0.0%		Total % Cover of: Multiply by:
δ	0		otal Cove	r	$\begin{array}{c} \hline \\ \hline $
Sapling-Sapling/Shrub Stratum (Plot size:)					EACH species $0 \times 2 = 0$
1	0		0.0%		FAC species $0 \times 2 = 0$
2	0		0.0%		FAC species $0 \times 3 = 0$
3	0		0.0%		FACU species $150 \times 4 = 520$
4	0		0.0%		UPL species $-\frac{1}{2}$ x 5 = $-\frac{1}{2}$
5	0		0.0%		Column Totals: 130 (A) 520 (B)
6	0		0.0%		Prevalence Index = $B/A = 4.000$
7	0		0.0%		Hydrophytic Vegetation Indicators:
8	0		0.0%		Rapid Test for Hydrophytic Vegetation
9	0		0.0%		Dominance Test is > 50%
10	0		0.0%		Prevalence Index is \leq 3.0 ¹
Shrub Stratum (Plot size:)		= То	otal Cove	r	Morphological Adaptations ¹ (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7.	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: _5' radius)	0	= To	otal Cove	r	regardless of height.
1 Dactylis alomerata	50	~	38.5%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
2 Andropogon virginicus	25	\checkmark	19.2%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3 Achillea millefolium	25	\checkmark	19.2%	FACU	plants, regardless of size, and all other plants less than 3.28
Δ Trifolium repens	15		11.5%	FACU	Woody vines – Consists of all woody vines greater than 3.28
5. Plantago major	15		11.5%	FACU	ft in height.
6	0		0.0%		Five Vegetation Strata:
7	0		0.0%		rive vegetation strata.
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size:	130	= то	otal Cove	r	Herb stratum – Consists of all berbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
2	0	\square	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3	0		0.0%		Woody vines - Consists of all woody vines, regardless of
4	0		0.0%		height.
5	0		0.0%		
6	0		0.0%		Hydrophytic Vegetation
0	0	= T	otal Cove	r –	Present? Yes O No O
Pomarka (Includo nhoto numbera horo or on a concrete cho		-			

Remarks: (Include photo numbers here or on a separate sheet.)

Vegetation has been recently mowed.

Soil

Sampling Point: W-MRK-001 UPL

Profile Descr	ription: (Describe to	the depth ne	eded to document	the indica	ator or co	onfirm the a	absence of indicators.)	
Depth	Matrix		Red	ox Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-16	10YR 4/3	100					Silt Loam	
-	p						,,	
		·						
		. <u> </u>						
1 Type: C-Con	centration D-Depletio	n PM-Peduc	ad Matrix CS-Covere	d or Coate	d Sand Gr	aine 21 oct	ation: DI-Dore Lining M-M	latrix
		n. RM=Reduc	eu Matrix, CS=Covere	u or coale	u Sanu Gra		auon: PL=Pore Lining. M=M	
Hydric Soil 1	Indicators:			_`			Indicators for Proble	matic Hydric Soils ³ :
	A1)		Dark Surface (S	/)	SO) (MI D A	1 47 1 40)	2 cm Muck (A10)	(MLRA 147)
	pedon (A2)			Surface (S	58) (MLRA	147,148)	Coast Prairie Redo	x (A16)
	(A3)			ce (S9) (MI	LRA 147, 1	.48)	(MLRA 147,148)	
Hydrogen			Loamy Gleyed N	latrix (F2)			Piedmont Floodpla	in Soils (F19)
	Layers (A5)			(F3)			(MLRA 136, 147)	
	к (A10) (LRR N)		Redox Dark Sur	race (F6)			Very Shallow Dark	Surface (TF12)
Depleted	Below Dark Surface (A	11)		ourface (F/)		Other (Explain in F	Remarks)
Thick Dar	k Surface (A12)			ons (F8)				
Sandy Mu MLRA 147	uck Mineral (S1) (LRR N 7, 148)	1,	MLRA 136)	e Masses (F	·12) (LRR I	Ν,		
Sandy Gle	eyed Matrix (S4)		Umbric Surface	(F13) (MLF	RA 136, 12	22)	3	
Sandy Re	dox (S5)		Piedmont Flood	plain Soils	(F19) (MLF	RA 148)	Indicators of r wetland hydr	nydrophytic vegetation and rology must be present.
Stripped I	Matrix (S6)		Red Parent Mat	erial (F21)	(MLRA 122	7, 147)	unless dis	turbed or problematic.
Restrictive L	ayer (if observed):							
Type:							Hydric Soil Present?	
Depth (inc	:hes):						,	
Remarks:								







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

WETLANDS

Wetland 02	
Date:	
November 5, 2018 Description:	
PEM	
Category 1	at the second of the second of the
Facing North	and the second of the second





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No.

60582598







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Wetland 02	
Date:	
November 5, 2018	
Description:	
PEM	
Modified Category 2	
Woullied Category 2	
Soil Pit	
501111	

WETLAND DETERMINATION DATA FORM - Fastern Mountains and Piedmont Region

Project /Site: Correllton Coble 129 W/ Droject	
Project/Site: Carroliton-Gable 138 kV Project	Sampling Date: 05-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-003 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 26 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): Concave Slope:0.6 °
Subregion (LRR or MLRA): LRR N	Lat.: 40.577816 Long.: -81.070357 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loa	Ims, 8 to 15 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this t	ime of year? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology sig	unificantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodot$
Are Vegetation Soil or Hydrology na	turally problematic? (If needed, explain any answers in Remarks)
Summary of Findings - Attach site map show	wing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes 💿 No 🔾	
Hydric Soil Present? Yes 🔍 No 🔾	Is the Sampled Area Yes 💿 No 🔿
Wetland Hydrology Present? Yes No	within a Wetland?
Hydrology	
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that	apply) Surface Soil Cracks (B6)
Surface Water (A1)	atic Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	n Sulfide Odor (C1) Drainage Patterns (B10)
Saturation (A3)	Rhizospheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	of Reduced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	on Reduction in Tilled Soils (C6)
Drift deposits (B3)	k Surface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (E) Other (E)	cplain in Remarks)
Iron Deposits (B5) Inundation Visible on Aerial Imagon (B7)	Geomorphic Position (D2)
Water-Stained Leaves (R0)	Shallow Aquitard (D3)
Aquatic Fauna (B13)	$\blacksquare \text{ Microtopographic Relief (D4)}$
Field Observations:	
Surface Water Present? Yes No	(inches):
Water Table Present? Yes No	(inches):
Saturation Present? (includes capillary fringe) Yes O No O Depth ((inches): Wetland Hydrology Present? Yes • No ·

Remarks:

Source of hydrology is seasonal flooding.

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

	W	etland	03
--	---	--------	----

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

		De	ominant		Sampling Point: W-MRK-003 PEM
	Absolute	Re Re	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		over	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:5(A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:5_ (B)
4	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
6	0		0.0%		
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		
Sapling-Sapling/Shrub Stratum (Plot size:	0	= 10	otal Cove	r	OBL species $15 \times 1 = 15$
1	0		0.0%		FACW species $95 \times 2 = 190$
2	0		0.0%	-	FAC species $2 \times 3 = 6$
3	0		0.0%	-	FACU species 20 x 4 = 80
4	0		0.0%		UPL species $0 \times 5 = 0$
5	0		0.0%		Column Totals: <u>132</u> (A) <u>291</u> (B)
6	0		0.0%		Prevalence Index – $B/A - 2.205$
7	0	\square	0.0%		
8	0	\square	0.0%	-	Hydrophytic Vegetation Indicators:
0	0	\square	0.0%		Rapid Test for Hydrophytic Vegetation
9	0		0.0%		✓ Dominance Test is > 50%
10	0	_ T/	atal Covo		✓ Prevalence Index is $\leq 3.0^{-1}$
Shrub Stratum (Plot size: <u>15' radius</u>)		- IQ			Morphological Adaptations ¹ (Provide supporting
1. Salix nigra			71.4%	OBL	\square Droblematic Hydrophytic Vegetation ¹ (Explain)
2. Sambucus nigra ssp. canadensis	2		28.6%	FAC	
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must be present unless disturbed or problematic
4	0		0.0%		
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7	0		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)	7	= То	otal Cove	r	regardless of height.
1. Phalaris arundinacea	40	\checkmark	32.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
2. Epilobium coloratum	20	\checkmark	16.0%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3 Solidago gigantea	20	\checkmark	16.0%	FACW	plants, regardless of size, and all other plants less than 3.28
4 Eutrochium maculatum	15		12.0%	FACW	Woody vines – Consists of all woody vines greater than 3.28
5. Cirsium arvense	10		8.0%	FACU	ft in height.
6. Glechoma hederacea	10		8.0%	FACU	Eive Vegetation Strates
7 Persicaria sagittata	10		8.0%	OBL	
8.	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		Sapling stratum – Consists of woody plants, excluding
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
	125	= то	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
			0.00/		plants, including herbaceous vines, regardless of size, and
1	0		0.0%		woody species, except woody vines, less than approximately
2	<u> </u>		0.0%		
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height.
4	<u> </u>		0.0%		
5	0		0.0%		Hydrophytic
6	0		0.0%		Vegetation Precent? Yes In No
	0	= T	otal Cove	r	
Remarks: (Include photo numbers here or on a separate she	et.)	_			

Sampling Point: W-MRK-003 PEM

Soil							Sampling Point: W-N	IRK-003 PEM		
Profile Desc	ription: (Describe to t	he depth :	eeded to documen	t the indi	cator or co	onfirm the	absence of indicators.)			
Depth	Matrix		Re	dox Featu	ires		- /			
_(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks		
0-16	10YR 3/2	95	10YR 5/6	5	С	M,PL	Silt Loam	2% oxidized rhizospheres		
				-						
							,			
								-		
1										
¹ Type: C=Cor	centration. D=Depletior	n. RM=Redu	ced Matrix, CS=Cove	red or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M=	Matrix		
Hydric Soil	Indicators:						Indicators for Prob	lematic Hydric Soils ³ :		
	(A1)		Dark Surface ((S7)			2 cm Muck (A10) (MLRA 147)		
Histic Epi	pedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)	Coast Prairie Rec	dox (A16)		
Black His	tic (A3)		Thin Dark Surf	face (S9) (N	MLRA 147, 1	148)	(MLRA 147,148)			
	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)		Piedmont Flood	plain Soils (F19)		
	Layers (A5)		Depleted Matr	ix (F3)			(MLRA 136, 147)		
	ck (A10) (LRR N)		Redox Dark Su	urface (F6)			Very Shallow Da	rk Surface (TF12)		
	Below Dark Surface (A1	1)		Surrace (F	7)		Other (Explain in	າ Remarks)		
Thick Da	rk Surface (A12)			SIONS (F8)	(E12) /I DD	N				
MI RA 14	uck Mineral (S1) (LRR N 7, 148)	,	MLRA 136)	se masses	(F12) (LKK	IN,				
Sandy Gl	eved Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)				
Sandy Re	dox (S5)		Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	³ Indicators o	f hydrophytic vegetation and		
Stripped	Matrix (S6)		Red Parent Ma	aterial (F21) (MLRA 12	7. 147)	unless d	listurbed or problematic.		
					/ (, ,				
Restrictive L	ayer (if observed):									
Туре:							Hydric Sail Brocont?			
Depth (inc	ches):						Hydric Soli Present?	res 👻 no 🖯		
Remarks:										

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 05-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-003 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 26 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Convex Slope:0.6 °
Subregion (LRR or MLRA): LRR N La	at.: 40.578066 Long.: -81.070389 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8	8 to 15 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of Are Vegetation , Soil , or Hydrology signific Are Vegetation , Soil , or Hydrology natural Summary of Findings - Attach site map showing	If year? Yes No (If no, explain in Remarks.) antly disturbed? Are "Normal Circumstances" present? Yes No ly problematic? (If needed, explain any answers in Remarks.) g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?YesNoHydric Soil Present?YesNoWetland Hydrology Present?YesNo	Is the Sampled Area Yes O No () within a Wetland?
Remarks: Upland data point for W-MRK-003. Surrounding land use is forest	: and maintained right-of-way.
Hydrology	
	Secondary Indicators (minimum of two required)

	Secondary Indicators (minimum of two required)
eck all that apply)	Surface Soil Cracks (B6)
True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
	Geomorphic Position (D2)
	Shallow Aquitard (D3)
	Microtopographic Relief (D4)
	FAC-neutral Test (D5)
Depth (inches):	
Depth (inches):	
Depth (inches):	
g well, aerial photos, previous inspections), if avai	lable:
	eck all that apply) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches): Wetland Hyd g well, aerial photos, previous inspections), if avait

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

		De	ominant		Sampling Point: W-MRK-003 UPL
	Absolute	Re	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		over	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:(A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:5_ (B)
4	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC:0.0%(A/B)
6	0		0.0%		
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Iotal % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: <u>15' radius</u>)		= То	otal Cover	r	OBL species $0 \times 1 = 0$
1 Ouercus alba	20	~	66.7%	FACU	FACW species $0 \times 2 = 0$
2 Ouercus rubra	10	~	33.3%	FACU	FAC species $0 \times 3 = 0$
2. Quereus rubru	0	\square	0.0%		FACU species $170 \times 4 = 680$
5	0	\square	0.0%		UPL species $5 \times 5 = 25$
5	0		0.0%		Column Totals:175 (A) 705 (B)
6	0		0.0%		
7	 		0.0%		Prevalence Index = B/A = 4.029
0	0		0.0%		Hydrophytic Vegetation Indicators:
8	0		0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		Dominance Test is > 50%
10	20		0.0%		Prevalence Index is \leq 3.0 1
Shrub Stratum (Plot size:)	30:	= то	otal Cover	r	Morphological Adaptations ¹ (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7.	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: 5' radius)	0 :	= То	otal Cove		regardless of height.
1 Andronogon virginicus	50	\checkmark	34.5%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
2 Solidado canadensis	30		20.7%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Doctulis alomorata	30		20.7%	FACIL	plants, regardless of size, and all other plants less than 3.28
Dactylis gioliterata	20		13.8%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
Armica millionam F Trifolium repens	10	\square	6.9%	FACU	ft in height.
6 Daucus carota	5	\square	3.4%		
7			0.0%		Five Vegetation Strata:
0	0		0.0%		Tree - Woody plants, excluding woody vines, approximately
ð	0		0.0%		diameter at breast height (DBH).
9			0.0%		Sapling stratum – Consists of woody plants, excluding
10			0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in (7.6 cm) DBH
11			0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	145				vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		= 10	Stal Cover	ſ	Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		neight.
5	0		0.0%		Hydrophytic
6	0		0.0%		Vegetation
	0	= T	otal Cove	r	Present? Yes 🔾 No 🛡
Beneder (Techeder between beer beer en en en en etc.)					

Remarks: (Include photo numbers here or on a separate sheet.)

Up	land	03
----	------	----

file Desc	ription: (Describe t	o the depth	needed to document	he indicator or co	nfirm the	absence of indicators.)	
Depth Matrix		Redo	x Features				
nches)	Color (moist)	%	Color (moist)	<u>%</u> <u>Tvpe</u> ¹	Loc ²	Texture	Remarks
0-8	10YR 4/3	100				Silt Loam	
-16	10YR 6/6	100				Silty Clay Loam	
	-				-		
			· ·				
						,	
e: C=Cor	centration. D=Deplet	ion. RM=Red	uced Matrix. CS=Covered	l or Coated Sand Gr	ains ² Loca	ation: PL=Pore Lining, M=1	fatrix
dric Soil	Indicators:						
Histosol ((A1)		Dark Surface (S	')		Indicators for Proble	ematic Hydric Soils":
Histic Epi	ipedon (A2)		Polyvalue Below	> Surface (S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black His	stic (A3)		Thin Dark Surfac	e (S9) (MLRA 147. 1	.48)	Coast Prairie Red	ox (A16)
Hydroger	n Sulfide (A4)		Loamy Gleved M	atrix (F2)	,	(MLKA 147,148)	
Stratified	Layers (A5)		Depleted Matrix	(F3)		(MLRA 136, 147)	ain Soils (F19)
2 cm Muo	ck (A10) (LRR N)		Redox Dark Surf	ace (F6)		Very Shallow Dar	(Surface (TE12)
Depleted	Below Dark Surface (A11)	Depleted Dark S	urface (F7)		Other (Explain in	Demarks)
Thick Da	rk Surface (A12)	,	Redox Depressio	ns (F8)			Rellidiks)
Sandy Mi	uck Mineral (S1) (LRR	N.	Iron-Manganese	Masses (F12) (LRR	Ν,		
MLRA 14	7, 148)	,	MLRA 136)				
Sandy Gl	eyed Matrix (S4)		Umbric Surface	F13) (MLRA 136, 12	2)	3	
Sandy Re	edox (S5)		Piedmont Flood	lain Soils (F19) (ML	RA 148)	^o Indicators of wetland hyd	hydrophytic vegetation and Irology must be present,
Stripped	Matrix (S6)		Red Parent Mate	rial (F21) (MLRA 12	7, 147)	unless di	sturbed or problematic.
	and the second design of the second sec						
	.ayer (if observed):						
Type:	-1) -					Hvdric Soil Present?	Yes 🔿 No 🖲
Depth (Inc	cnes):						
marks:							





Site: AEP Carr	rollton-(Gable	Rater(s):	M.R.Kline, R.O	C.Massa	1	Date:	11/5/2018
R			-		Field	ld:	-	
	30.5				W-MF	RK-003 PEM		
	subtotal this n	ane						
0	30.5	Metric 5 Speci	al Wotlan	de				
v	50.5	Metric J. Opeci						
max 10 pts.	subtotal	Check all that app	bly and scol	re as indicated.				
		Eog (10)						
		Old growth forest (10)						
		Mature forested wetland	1 (5)					
		Lake Erie coastal/tributa	ary wetland-unre	estricted hydrology (10				
		Lake Erie coastal/tributa	ary wetland-rest	ricted hydrology (5)				
		Relict Wet Praires (10)		(10)				
		Known occurrence state	e/federal threate	ened or endangered sp	ecies (10)			
		Significant migratory so	ngbird/water for	vl habitat or usage (10)				
-1	29.5	Metric 6. Plant	communi	ties, intersper	sion, m	icrotopography.		
max 20pts	subtotal	6a. Wetland Vege	tation Comr	nunities.	Vegeta	ation Community Cov	er Scale	
		Score all present using	0 to 3 scale.	(Absent o	r comprises <0.1ha (0.2471 a	cres) contiguous area	
		Aquatic bed			Present	and either comprises small pa	irt of wetland's 1	
		1 Emergent			vegetatio	on and is of moderate quality,	or comprises a	
		Shrub		.	significar	nt part but is of low quality	nt nort of wotland's O	
		Mudflats		4	vegetatio	and entitler comprises signification and is of moderate quality of	or comprises a small	
		Open water			part and	is of high quality	o comprises a smail	
		Other			Present a	and comprises significant part	, or more, of wetland's 3	
		6b. horizontal (plan vi	ew) Interspers	ion.	vegetatio	on and is of high quality		
		High (5)			Narrativ	e Description of Vegetation	Quality	
		Moderately high(4)			Low spp	diversity and/or predominanc	e of nonnative or low	
		Moderate (3)			disturbar	nce tolerant native species		
		Moderately low (2)			Native sp	op are dominant component o	f the vegetation, mod	
		None (0)			can also	be present, and species dive	rsity moderate to	
	1	6c. Coverage of invasi	ve plants. Ref	er	moderate	ely high, but generallyw/o pres	sence of rare	
		Table 1 ORAM long for	n for list. Add		threatene	ed or endangered spp to		
		or deduct points for cov	erage		A predor	ninance of native species, wit	h nonnative spp high	
		x Moderate 25-75% cover			and/or di	sturbance tolerant native spp and high spp diversity and offe	absent or virtually	
		Sparse 5-25% cover (-1)		the prese	ence of rare, threatened, or er	ndangered spp	
		Nearly absent <5% cov	er (0)		, <u> </u>		• • •	
		Absent (1)			Mudflat	and Open Water Class Qua	lity	
		6d. Microtopography.	0 to 2 coolo		Absent <	0.1ha (0.247 acres)		
	1	Vegetated hummucks/ti	ussucks		2 Moderate	e 1 to <4ha (2.47 to 2.47 acres)	s)	
		Coarse woody debris >	I5cm (6in)		B High 4ha	(9.88 acres) or more	-/	
		Standing dead >25cm (10in) dbh					
		Amphibian breeding poo	bls		Microto	oography Cover Scale		
					Present	verv small amounts or if more	common	
					of margin	al quality	001111011	
					Present	in moderate amounts, but not	of highest	
Category 1	1				quality or	in small amounts of highest of	quality	
29.5	GRAND	TOTAL(max 100 pts)		3	Present	in moderate or greater amoun	ts	

and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Wetland 03	
Date:	
November 5, 2018	
Description:	
PEM	
Category 1	
Facing North	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598





AECOM	PHOTOGRAPHIC RE WETLANDS	ECORD	
Client Name:	Site Location:	Project No.	
AEP	Gable-Carrollton 138 kV Transmission Line Project	60582598	

Gable-Carrollton 138 kV Transmission Line Project

Wetland 03	
Date:	
November 5, 2018	
Description:	
PEM	
Modified Category 2	
Soil Pit	
	$> N/ \times$

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-004 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): concave Slope: 2.0% / 1.1 °
Subregion (LRR or MLRA): LRR N	t 40 573578 Long81 064316 Datum: NAD83
Soil Map Unit Name: BkD: Berks shalv silt loam. 15 to 25 percent s	slopes NWI classification: N/A
Are climatic /bydrologic conditions on the site typical for this time of	f year? Yes $(0, N_0)$ (If no explain in Demarks)
Are Vegetation Soil or Hydrology cignification	
Are Vegetation, Soil, or Hydrology signification	v problematic? (If needed, explain any answers in Remarks.)
Summary of Eindings - Attach site man showing	a sampling point locations transacts important features atc
	g sampling point locations, transects, important leatures, etc.
Hydric Soil Present? Yes NO Van Alla Va	Is the Sampled Area Yes No No
Wetland Hydrology Present? Yes VIO U	
where the water dissipates into the upland vegetation. The wetlar	nd boundary follows edge of depression and hydrophytic vegetation.
Hydrology	
Primary Indicators (minimum of one required; check all that apply Surface Water (A1) Image: Surface Water (B1) Image: Surface Water Present? Image: S	Secondary Indicators (Initiation of two reduired) Ans (B14) Sparsely Vegetated Concave Surface (B8) Concave Surface (B8) Drainage Patterns (B10) Spheres along Living Roots (C3) Moss Trim Lines (B16) Crayfish Burrows (C8) ace (C7) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5) Wetland Hydrology Present? Yes No No No No No No No No No No

Wetland 04 VEGETATION (Five/Four Strata)- Use scientific names of plants

VEGETATION (TWE/TOUT Strate)- Ose scien		Do	Dominant		Sampling Point: W-MRK-004 PEM		
(Plot size:)	Absolute % Cover	–Sp Re	el.Strat.	Indicator Status	Dominance Test worksheet:		
	0			otatao	Number of Dominant Species		
1	0		0.0%				
2			0.0%		Total Number of Dominant		
3			0.0%		Species Across All Strata:4(B)		
4			0.0%		Percent of dominant Species		
6	0		0.0%		That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)		
7	0		0.0%		Prevalence Index worksheet:		
8	0		0.0%		Total % Cover of: Multiply by:		
	0	= To	otal Cove	r	OBL species x 1 =		
Sapling-Sapling/Shrub Stratum (Plot size:)	0		0.004		FACW species 60 x 2 = 120		
1			0.0%		FAC species x 3 =		
2			0.0%		FACU species 25 x 4 = 100		
3			0.0%		UPL species $0 \times 5 = 0$		
4			0.0%		Column Totals: 135 (A) 370 (B)		
5			0.0%				
0 7			0.0%		Prevalence Index = $B/A = 2.741$		
0			0.0%		Hydrophytic Vegetation Indicators:		
8			0.0%		Rapid Test for Hydrophytic Vegetation		
9			0.0%		Dominance Test is > 50%		
	0	— то	otal Cove	r	✓ Prevalence Index is \leq 3.0 ¹		
Shrub Stratum (Plot size: <u>15' radius</u>)	10	Morphological Adaptation			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2 Rubus allashaniansis	5		33 30/2	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)		
2. Rubus anegreriterists			0.0%	TACO	¹ Indicators of hydric coil and watland hydrology must		
3			0.0%		be present, unless disturbed or problematic.		
F.			0.0%		Definition of Vegetation Strata:		
6			0.0%		Four Vegetation Strata:		
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3		
(Plot cizo: E' radius)	15	= To	otal Cove	r	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
1 Dhalarie arundinacea	60		50.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding		
2 Dichanthelium clandestinum	50		41.7%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Solidara canadensis	10		8.3%	FACU	plants, regardless of size, and all other plants less than 3.28		
Λ	0		0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28		
5	0		0.0%		ft in height.		
6	0		0.0%	-	Five Vegetation Strates		
7.	0		0.0%		Five vegetation strata:		
8.	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in		
9.	0		0.0%		diameter at breast height (DBH).		
10.	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and		
11	0		0.0%		less than 3 in. (7.6 cm) DBH.		
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody		
Woody Vine Stratum (Plot size:)	120	= То	otal Cove	r	Herb stratum – Consists of all herbaceous (non-woody)		
1	0		0.0%		plants, including herbaceous vines, regardless of size, and		
2	0		0.0%		3 ft (1 m) in height.		
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of		
4.	0		0.0%		height.		
5	0		0.0%				
6	0		0.0%		Hydrophytic Vegetation — — — —		
	0	= T(otal Cove	er	Present? Yes		
Demonica (Tackada abata mumbara bara an an a concrete aba			-				

marks: (Include photo numbers here or on a separate sheet.)

Wetland ()4
-----------	----

Soil									Sampling Point: W	-MRK-004 PEM	
Profile Desc	ription: (D	escribe to	the depth	needed to	docume	nt the indi	icator or c	onfirm the	absence of indicators	5.)	
Depth Matrix			Matrix Redox Features						_		
(inches)	Color	(moist)	%	<u>Color (moist)</u> <u>%</u> <u>Type</u> 1					Texture	Remarks	
0-14	2.5Y	6/2	95	2.5Y	5/6	5	C	M	Silty Clay Loam		
14-16	2.5Y	7/1	90	2.5Y	5/6	10	С	М	Silty Clay Loam		
					-						
	-		-	-	-						
								·			
	-				-						
¹ Type: C=Cor	ncentration.	D=Depleti	on. RM=Red	duced Matrix	CS=Cove	ered or Coa	ted Sand G	rains ² Loc	ation: PL=Pore Lining.	M=Matrix	
Hydric Soil	Indicators								Indicators for Pr	oblematic Hydric Soils ³ :	
Histosol ((A1)			Dar	k Surface	(S7)					
🗌 Histic Epi	ipedon (A2)			Poly	value Bel	ow Surface	(S8) (MLR	A 147,148)		(MERA 147)	
Black His	tic (A3)			🗌 Thir	n Dark Su	rface (S9) (MLRA 147,	148)	(MLRA 147,14	Redox (A16) (48)	
Hydroger	n Sulfide (A	4)		Loa	my Gleyed	d Matrix (F2	2)		Piedmont Flo	odplain Soils (F19)	
Stratified	Layers (A5)		🗹 Dep	leted Mat	rix (F3)			(MLRA 136, 1	47)	
2 cm Muc	ck (A10) (LF	RR N)		Red	ox Dark S	Surface (F6)			Very Shallow	Dark Surface (TF12)	
Depleted	Below Dark	< Surface (A11)	🗌 Dep	leted Dar	k Surface (I	F7)		Other (Explai	n in Remarks)	
Thick Da	rk Surface (A12)			ox Depres	ssions (F8)	(= (=) (= = =				
Sandy Mi	uck Mineral	(S1) (LRR	Ν,		-Mangane A 136)	ese Masses	(F12) (LRR	εn,			
Sandy G	oved Matrix	(\$4)		Umbric Surface (F13) (MLRA 136, 122)							
Sandy Re	eyeu Mauix edox (SS)	(57)		Pie	lmont Flo	odplain Soil	ls (F19) (M	, LRA 148)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Stripped	Matrix (S6)			Rec	Parent M	laterial (F21	L) (MLRA 1	27, 147)			
Restrictive L	.ayer (if ol	oserved):									
Туре:									Undrie Ceil Dresen		
Depth (ind	ches):								Hydric Soli Presen	r yes Ino U	
Remarks:											

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

		untains and Fleumont Region
Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Samplin	g Point: W-MRK-004 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S	25 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, n	one): Slope:/ °
Subregion (LRR or MLRA): LRR N	Lat.: 40.573506 Lon	g.: -81.064226 Datum: NAD83
Soil Map Unit Name: BkD; Berks shalv silt loam, 15	5 to 25 percent slopes NWI	classification: N/A
Are climatic (hydrologic conditions on the site trains		ovalain in Romarka
Are Conductions on the site typical		
	Significantly disturbed? Are "Normal	Circumstances" present?
Are Vegetation, Soil, or Hydrology	naturally problematic? (If needed, e	explain any answers in Remarks.)
Summary of Findings - Attach site m	nap showing sampling point location	is, transects, important features, etc.
Hydrophytic Veretation Present? Yes No		
Hydric Soli Present?	within a Wetland?	Yes 🕛 No 🔍
Wetland Hydrology Present? Tes C NO		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; che	eck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Aquatic Eaupa (B13)		
Eield Observations:		
Surface Water Present? Yes O No •	Depth (inches):	
Water Table Present? Yes No (•)	Denth (inches)	
Saturation Present?	Wetland Hydr	ology Present? Yes 🔿 No 🖲
(includes capillary fringe) Yes V No •	Depth (inches):	
Describe Recorded Data (stream gauge, monitoring	g well, aerial photos, previous inspections), if avail	able:
Remarks:		
No source of hydrology.		

Upland 04 VEGETATION (Five/Four Strata)- Use scientific names of plants.

	Dominant Energies2			Sampling Point: <u>W-MRK-004 UPL</u>		
Tree Stratum (Plot size:)	Absolute % Cover	– Species? – Rel.Strat. Cover	Indicator Status	Dominance Test worksheet:		
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)		
2.	0	0.0%				
3	0	0.0%		Total Number of Dominant Species Across All Strata: 3 (B)		
4	0	0.0%				
5	0	0.0%		Percent of dominant Species		
6	0	0.0%		That Are OBL, FACW, or FAC:(A/b)		
7	0	0.0%		Prevalence Index worksheet:		
8	0	0.0%		Total % Cover of: Multiply by:		
Contine Contine (Chrysh Stratum (Plot size)		= Total Cover	r	OBL species <u>0</u> x 1 = <u>0</u>		
Sapling-Sapling/Snrub Stratum (1100 Size.	0	0.0%		FACW species $0 \times 2 = 0$		
1	0			FAC species $50 \times 3 = 150$		
2	0			FACU species $120 \times 4 = 480$		
3	0			UPL species $0 \times 5 = 0$		
- 4	0	0.0%		Column Totals: 170 (A) 630 (B)		
6	0	0.0%		$\frac{1}{1}$		
7	0	0.0%				
8	0	0.0%		Hydrophytic Vegetation Indicators:		
9	0	0.0%		Rapid Test for Hydrophytic Vegetation		
10	0	0.0%		Dominance Test is > 50%		
	0 :	= Total Cove		□ Prevalence Index is $\leq 3.0^{-1}$		
Shrub Stratum (Plot size: <u>15' radius</u>)	50	100.0%	EACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2			TACO	Problematic Hydrophytic Vegetation ¹ (Explain)		
2.	0			¹ Indicators of hydric call and watland hydrology must		
3	0			be present, unless disturbed or problematic.		
F.	0			Definition of Vegetation Strata:		
6	0			Four Vegetation Strata:		
7	0			Tree stratum – Consists of woody plants, excluding vines, 3		
	50 :	= Total Cove		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Plot size: <u>5 radius</u>)		11 70/	EAC	Sapling/shrub stratum – Consists of woody plants, excluding		
1. Dichanthelium clandestinum	50	 ✓ 41.7% ✓ 41.7% 	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Glechoma nederacea	20	16.7%	FACU	plants, regardless of size, and all other plants less than 3.28		
	0	0.0%	1700	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
4 5	0	0.0%		ft in height.		
6	0	0.0%				
7	0	0.0%		Five Vegetation Strata:		
8	0	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in		
9	0	0.0%		diameter at breast height (DBH).		
10	0	0.0%		Sapling stratum – Consists of woody plants, excluding		
11	0	0.0%		less than 3 in. (7.6 cm) DBH.		
12.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody		
Woody Vine Stratum (Plot size:	120	= Total Cove	-	vines, approximately 3 to 20 ft (1 to 6 m) in height.		
1	0	0.0%		plants, including herbaceous vines, regardless of size, and		
2	 0	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.		
3	0	0.0%		Woody vines - Consists of all woody vines regardless of		
Δ.	0	0.0%		height.		
5	0					
6	 	0.0%		Hydrophytic Vegetation		
0	0	= Total Cove	r	Present? Yes \bigcirc No \bigcirc		
			-			

Remarks: (Include photo numbers here or on a separate sheet.)

Soil

Sampling Point: W-MRK-004 UPL

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)		Tvpe ¹	Loc ²	Texture	Remarks	
0-16	2.5Y 4/3	100					Silt Loam		
-					-				
				-					
¹ Type: C=Con	centration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=M	latrix	
Hydric Soil I	Indicators:						Indicators for Proble	matic Hydric Soils ³ :	
Histosol (A1)		Dark Surface (57)			2 cm Muck (A10)	(MLRA 147)	
Histic Epi	pedon (A2)		Polyvalue Belov	v Surface ((S8) (MLRA	147,148)		(
Black Hist	tic (A3)		Thin Dark Surfa	ice (S9) (M	1LRA 147, 1	.48)	(MLRA 147,148)	x (A16)	
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2))		Piedmont Floodpla	in Soils (F19)	
Stratified	Layers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)		
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	face (F6)			Very Shallow Dark	Surface (TF12)	
Depleted	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	Remarks)	
Thick Dar	k Surface (A12)		Redox Depress	ons (F8)					
Sandy Mu	ick Mineral (S1) (LRR N	l,	Iron-Manganes MLRA 136)	e Masses (F12) (LRR	N,			
Sandy Gle	aved Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)			
Sandy Re	dox (S5)		Piedmont Floor	Inlain Soils	(F19) (MI)	, RA 148)	³ Indicators of h	nydrophytic vegetation and	
	Matrix (S6)						wetland hydrology must be present,		
				lenai (FZI)) (MLRA 12	7, 147)	uniess uis		
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	hes):						Hydric Soil Present?	Yes 🔾 No 🖲	
Remarks:									






and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 04	
Date:	
November 6, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-005 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center -14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): concave Slope: / °
Subregion (LRR or MLRA): LRR N Lat.:	40.572856 Long.: -81.063070 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8 to	o 15 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y Are Vegetation , Soil , or Hydrology significant Are Vegetation , Soil , or Hydrology naturally Summary of Findings - Attach site map showing	Year? Yes NO (If no, explain in Remarks.) tly disturbed? Are "Normal Circumstances" present? Yes NO (If needed, explain any answers in Remarks.) sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?YesNoHydric Soil Present?YesNoWetland Hydrology Present?YesNo	Is the Sampled Area Yes \odot No \bigcirc within a Wetland?
Remarks: This PEM wetland begins at several hillside spring seeps and drains of maintained hayfield. Two watercourses also add to the hydrology of current study area. The wetland boundary follows edge of depression	downslope within hillside depressions. Surrounding area is a mowed and f the wetland, S-MRK-007 and S-MRK-008. Wetland is open ended outside of the on and hydrophytic vegetation.
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)

Wetland Hydrology Indicators:	Wetland Hydrology Indicators:					
Primary Indicators (minimum of one required;	Surface Soil Cracks (B6)					
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
✓ High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)				
Saturation (A3)	Moss Trim Lines (B16)					
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)				
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)				
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)				
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)				
Water-Stained Leaves (B9)		Microtopographic Relief (D4)				
Aquatic Fauna (B13)		✓ FAC-neutral Test (D5)				
Field Observations:						
Surface Water Present? Yes 🕖 No 🔍	Depth (inches):					
Water Table Present? Yes No	Depth (inches):0					
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):0	irology present? Tes \odot NO \bigcirc				
Describe Recorded Data (stream gauge, monitor	pring well, aerial photos, previous inspections), if ava	ilable:				
Remarks:						
Source of hydrology is spring seeps and stream	n flow.					

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

			Dominant Species?		Sampling Point: <u>W-MRK-005 PEM</u>		
Tree Stratum (Plot size:)	Absolute % Cover	- SF Re	el.Strat.	Indicator Status	Dominance Test worksheet:		
	0		0.0%		Number of Dominant Species		
1	0		0.0%		111111111111111111111111111111111111		
2			0.0%		Total Number of Dominant		
3			0.0%		Species Across All Strata: <u>2</u> (B)		
4			0.0%		Percent of dominant Species		
5			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
6			0.0%				
<i>[</i>			0.0%		Prevalence Index worksheet:		
8	0		0.0%				
Sapling-Sapling/Shrub Stratum (Plot size:))	= 10	otal Cove	r	OBL species $25 \times 1 = 25$		
1	0		0.0%		FACW species $120 \times 2 = 240$		
2	0		0.0%		FAC species $10 \times 3 = 30$		
2	0	\square	0.0%		FACU species $0 \times 4 = 0$		
3	0	\square	0.0%		UPL species $0 \times 5 = 0$		
4	0	\square	0.0%		Column Totals: 155 (A) 295 (B)		
6			0.0%				
7	0		0.0%		Prevalence index = $B/A = 1.903$		
0			0.0%		Hydrophytic Vegetation Indicators:		
8			0.0%		Rapid Test for Hydrophytic Vegetation		
9			0.0%		✓ Dominance Test is > 50%		
10	0		0.0%		\checkmark Prevalence Index is \leq 3.0 1		
Shrub Stratum (Plot size:)		= To		r	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
1			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
2.			0.0%		¹ Indicators of hydric coil and watland hydrology must		
3			0.0%		be present, unless disturbed or problematic.		
4			0.0%		Definition of Vegetation Strata:		
5			0.0%		Four Vegetation Strata:		
6	0		0.0%		Tree stratum - Consists of woody plants excluding vines 3		
7	0		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size: <u>5' radius</u>)	0	= To	otal Cove	r	regardless of height.		
1. Juncus effusus	60	✓	38.7%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Cyperus esculentus	60	✓	38.7%	FACW	Herb stratum – Consists of all herbaceous (non-woody)		
3. Carex vulpinoidea	25		16.1%	OBL	plants, regardless of size, and all other plants less than 3.28 ft tall		
4. Echinochloa crus-galli	10		6.5%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft in height		
5	0		0.0%		it in noight.		
6	0		0.0%		Five Vegetation Strata:		
7	0		0.0%		Tree - Woody plants, excluding woody vines, approximately		
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in		
9.	0		0.0%		diameter at breast height (DBH).		
10.	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and		
11.	0		0.0%		less than 3 in. (7.6 cm) DBH.		
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody		
(Plot size:	155	= то	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.		
			0.00/		plants, including herbaceous vines, regardless of size, and		
1	<u> </u>		0.0%		woody species, except woody vines, less than approximately		
2	<u> </u>		0.0%		s it (1 in) in neight.		
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height.		
4	0		0.0%				
5	0		0.0%		Hydrophytic		
6	0		0.0%		Vegetation Present? Yes • No ·		
	0	= T	otal Cove	r			
Remarks: (Include photo numbers here or on a separate she	et.)						

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Wetland	05
---------	----

UTILE DESCI	ipuon: (De	SCLIDE TO	the depth	needed to C	ocumer	ic the indi	Lator or C	omin the	ausence of indicators.)			
Depth		Matrix			Re	dox Featu	Ires				_	
inches)	Color	(moist)		Color (noist)	%_	Tvpe ¹	Loc ²	Texture	Ren	narks	
0-14	5Y	5/1	75	10YR	5/6	25	C	M	Silty Clay Loam			
4-16	5Y	6/1	75	10YR	5/8	25	C	M	Silty Clay Loam			
 pe: C=Con	centration. I	- D=Depletio	on. RM=Red	uced Matrix.	CS=Cove	red or Coat	ed Sand G	rains ² Loca	ation: PL=Pore Lining, M=N	Matrix		
dric Soil	Indicators:								Indicators for Proble	ematic Hydri	ic Soils ³ :	
Histosol ((A1)			Dark	Surface	(S7)			2 cm Muck (A10)	(MLRA 147)		
Histic Epi Black His	pedon (A2) tic (A3)			Polyvalue Below Surface (S8) (MLRA 147,148) This Dark Surface (S0) (MLRA 147, 149) Coast Prairie Redox (A)				ox (A16)				
Hydroger	n Sulfide (A4	.)		Loam	iy Gleyed	Matrix (F2)	110)	(MLRA 147,148)			
Stratified	Layers (A5)	D NI)			eted Matr	ix (F3)			(MLRA 136, 147)		,	
	.K (AIU) (LKI	K N)			x Dark Si	Surface (FO)	7)		Very Shallow Dar	k Surface (TF:	12)	
Depleted	Below Dark	Surface (A	.11)	Depieted Dark Surface (F7) Redox Depressions (F8)					Other (Explain in	Remarks)		
Sandy Mu	uck Mineral ((S1) (LRR N	٧,	Iron-Manganese Masses (F12) (LRR N,								
MLRA 14	7, 148) eved Matrix	(54)		MLRA 136)				.22)				
Sandy Re	dox (S5)	(01)		Piedr	nont Floo	odplain Soil	s (F19) (M	LRA 148)	³ Indicators of hydrophytic vegetation and			
Stripped	Matrix (S6)			Red	Parent M	aterial (F21) (MLRA 1	27, 147)	wetland hydrology must be present, unless disturbed or problematic.			
strictive I	aver (if ob	served).					/ (, ,				
Type:		serveu).										
Depth (inc	hes).								Hydric Soil Present?	Yes 🖲	No \bigcirc	
marks:												

Upland 05, 06

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sa	ampling Date: 06-Nov-18				
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampl	ing Point: V	N-MRK-005-006 UPL				
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range:	s 25 T Ce	enter - 14N R 5W				
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex,	none): convex	Slope: <u>2.0%</u> / <u>1.1</u> °				
Subregion (LRR or MLRA): LRR N Lat.:	40.572493 Lo	ong.: -81.062671	Datum: NAD83				
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8 to	15 percent slopes NW	classification: N/A					
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No Are Vegetation , Soil , or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)							
Summary of Findings - Attach site map showing s	ampling point location	ons, transects, i	important features, etc.				

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes O Yes O Yes O	No (•) No (•) No (•)	Is the Sampled Area within a Wetland?	Yes 🔿 No 🖲
Remarks: Upland data point for W-MRK-005.	. Surroundin	ng land use i	s hayfield and existing right-of-way.	

Hydrology

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one required; o	Surface Soil Cracks (B6)	
Surface Water (A1)		True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizospheres along Living R	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils	s (C6) Crayfish Burrows (C8)
Drift deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imag	gery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:	0 0		
Surface Water Present? Yes	🔾 No 🔍	Depth (inches):	
Water Table Present? Yes	O No 🖲	Depth (inches):	
Saturation Present? (includes capillary fringe) Yes	O No 🔍	Depth (inches):	Wetland Hydrology Present? Yes 🔾 NO 👻
Describe Recorded Data (stream	gauge, monito	ring well, aerial photos, previous inspe	pections), if available:
Remarks:			
No source of hydrology.			
,			

Upland 05, 06 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Do	minant		Sampling Point: <u>W-MRK-005-006 UPL</u>
Tree Stratum (Plot size:)	Absolute % Cover	– Sp Re Co	l.Strat.	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL FACW, or FAC: 0 (A)
2	0		0.0%		
3	0		0.0%		Total Number of Dominant
۵ ۵	0		0.0%		Species Across Air Strata. \underline{I} (b)
5	0		0.0%		Percent of dominant Species
6	0		0.0%		That Are OBL, FACW, or FAC:(A/B)
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
0	0 :	= To	tal Cove		OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot size:)					EACW species $0 \times 2 = 0$
1	0		0.0%		EAC species $0 \times 3 = 0$
2	0		0.0%		FAC species 130 4 520
3	0		0.0%		FACU species $x 4 = 520$
4	0		0.0%		UPL species $10 \times 5 = 50$
5	0		0.0%		Column Totals: <u>140</u> (A) <u>570</u> (B)
6	0		0.0%		Prevalence Index = $B/A = 4.071$
7	0		0.0%		Hydrophytic Vegetation Indicators:
8	0		0.0%		Rapid Test for Hydrophytic Vegetation
9	0	\square_{-}	0.0%		Dominance Test is > 50%
10	0		0.0%		Prevalence Index is $\leq 3.0^{1}$
Shrub Stratum (Plot size:)		= To	tal Cove	r	Morphological Adaptations ¹ (Provide supporting
1.	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5.	0		0.0%		Definition of Vegetation Strata:
6.	0		0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Horb Stratum (Plot size: 5' radius)	0 :	= To	tal Cove	-	regardless of height.
1 Phloum protonce	100		71 4%	FΔCU	Sapling/shrub stratum – Consists of woody plants, excluding
Clashama hadaraasa	20		14 3%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Giechonia neueracea	10		7 1%		plants, regardless of size, and all other plants less than 3.28
J. Daucus carola	10		7.1%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
5	0	\square	0.0%		ft in height.
6	0	\square	0.0%		
7	0	\square	0.0%		Five Vegetation Strata:
8	0		0.0%		Tree - Woody plants, excluding woody vines, approximately
8	0		0.0%		diameter at breast height (DBH).
9	0		0.0%		Sapling stratum – Consists of woody plants, excluding
10	0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	140	 = To	tal Cove		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)					Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1	0		0.0%		woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height
4	0		0.0%		····g····
5	0		0.0%		Hydrophytic
6	0	\square_{-}	0.0%		Vegetation Procent? Yes No •
	0	= To	otal Cove	r	
Remarks: (Include photo numbers here or on a separate she	et.)				

Remarks. (Include photo numbers here of on a separate sheet.)

Sampling Point: W-MRK-005-006 UPL

Depth (inches) Matrix Redox Features Matrix Remarks 0-14 2.5Y 5/2 100			
Color (moist) % Color (moist) % Type 1 Loc2 Texture Remarks 0-14 2.5Y 5/2 100 Silt Loam Silt Loam 14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam			
0-14 2.5Y 5/2 100 Silt Loam 14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam			
14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam			
Image:			
Thick Dark Surface (A12) Redox Depressions (F8)			
Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136)			
Sandy Gleyed Matrix (S4)			
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic vegetation and wetland hydrology must be present,	 Indicators of hydrophytic vegetation and wetland hydrology must be present, 		
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.			
Restrictive Layer (if observed):			
Type:			





Site: AEP	Carrollton-	Gable	Rater(s):	M.R.Kline, R.O	C.Ma	ssa	Date:	11/6/2018
					Fie	eld ld:		
	23.5				W-	MRK-005 PEM		
	subtotal this	page						
	0 23.5	Metric 5. Spec	ial Wetlan	ds.				
		Chock all that an	nly and sco	a ac indicated				
max 10 pts.	subtotal	Bog (10)	ply and scol	e as mulcateu.				
		Fen (10)						
		Old growth forest (10)						
		Mature forested wetlan	id (5)					
		Lake Erie coastal/tribut	ary wetland-unr	estricted hydrology (10)			
		Lake Plain Sand Prairie	ary wettand-resi	ncted flydrology (5)				
		Relict Wet Praires (10)	oun opening	,0)(10)				
		Known occurrence stat	te/federal threate	ened or endangered sp	becies (*	10)		
		Significant migratory so	ongbird/water for	wl habitat or usage (10))			
	2 25.5	Metric 6. Plant	communi	ities, intersper	sion,	microtopography.		
max 20pts.	subtotal	6a. Wetland Vege	tation Com	nunities.	Veg	getation Community Cove	er Scale	
		Score all present using	0 to 3 scale.	(0 Abse	ent or comprises <0.1ha (0.2471 a	cres) contiguous area	
		Aquatic bed			1 Pres	ent and either comprises small par	rt of wetland's 1	
		1 Emergent			vege	tation and is of moderate quality, o	or comprises a	
		Eorost			signi 2 Bros	ficant part but is of low quality	at part of wotland's 2	
		Mudflats		4	z Pies	ent and entrer comprises significar	r comprises a small	
		Open water			part	and is of high quality		
		Other			3 Pres	ent and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan v	iew) Interspers	ion.	vege	tation and is of high quality		
		High (5)			Narr	ative Description of Vegetation	Quality	
		Moderately high(4)			Low	spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)			distu	rbance tolerant native species		
		x Moderately low (2)			Nativ	e spp are dominant component of	the vegetation, mod	
		Low (1)			altho	ugh nonnative and/or disturbance	tolerant native spp	
		6c. Coverage of invas	sive plants. Ref	er	mod	erately high, but generallyw/o pres	ence of rare	
		Table 1 ORAM long for	rm for list. Add		threa	atened or endangered spp to		
		or deduct points for co	verage		A pre	edominance of native species, with	n nonnative spp high	
		Extensive >75% cover	(-5)		and/	or disturbance tolerant native spp	absent or virtually	
		Moderate 25-75% cover (-	er (-3) 1)		abse the r	ent, and high spp diversity and offe	n, but not always,	
		Nearly absent <5% cov	/er (0)		uie p	resence of fale, threatened, of en	daligered spp	
		Absent (1)			Mud	flat and Open Water Class Qual	ity	
		6d. Microtopography		(0 Abse	ent <0.1ha (0.247 acres)		
		Score all present using	0 to 3 scale.		1 Low	0.1 to <1ha (0.247 to 2.47 acres)	.)	
		Coarse woody debris >	USSUCKS		2 IVI00 3 High	4ba (9.88 acres) or more	5)	
		Standing dead >25cm	(10in) dbh		- Ig.			
		Amphibian breeding po	ols		Micr	otopography Cover Scale		
				(0 Abse	ent		
					1 Pres	ent very small amounts or if more	common	
					2 Pres	arginal quality ent in moderate amounts, but not	of highest	
Category 1					quali	ty or in small amounts of highest q	uality	
2	25.5 GRANE	D TOTAL(max 100 pts)			3 Pres	ent in moderate or greater amount	s	

and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No.

60582598







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No.

60582598







Client Name:

AEP

Site Location:

Project No.

Gable-Carrollton 138 kV Transmission Line Project 60582598

Wetland 05	
Date:	
November 6, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point:	W-MRK-006 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25	T Center - 14N R 5
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none):	oncave Slope: <u>2.0%</u> / <u>1.1</u> °
Subregion (LRR or MLRA): LRR N	Lat.: 40.572493 Long.: -81.06	52671 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams	, 8 to 15 percent slopes NWI classification	n: N/A
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes $ullet$ No $igodot$ (If no, explain in	Remarks.)
Are Vegetation , Soil , or Hydrology signif	icantly disturbed? Are "Normal Circumsta	nces" present? Yes 🔍 No 🔾
Are Vegetation, Soil, or Hydrology natur	ally problematic? (If needed, explain any	answers in Remarks.)
Summary of Findings - Attach site map showi	ng sampling point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Present? Yes $ullet$ No $igodot$		
Hydric Soil Present? Yes 💿 No 🔾	Is the Sampled Area Yes 💿 N	\mathbf{n}
Wetland Hydrology Present? Yes 💿 No 🔾	within a Wetland?	
Remarks: This PEM wetland begins at a hillside spring seep that originates and open ends outside the current study area. The wetland bou	s under structure number 294. Water drains dou undary follows edge of depression.	wnslope within a minor depression

Hydrology

Wetland Hydrology Indicators	s:					Secondary Indicators (minimum of two required)
Primary Indicators (minimum	of one	required;	check all that apply)			Surface Soil Cracks (B6)
Surface Water (A1)			True Aquatic Plants (E	314)		Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)			Hydrogen Sulfide Odo	or (C1)		Drainage Patterns (B10)
Saturation (A3)			Oxidized Rhizosphere	s along Living F	Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)			Presence of Reduced	Iron (C4)		Dry Season Water Table (C2)
Sediment Deposits (B2)			Recent Iron Reduction	n in Tilled Soils	(C6)	Crayfish Burrows (C8)
Drift deposits (B3)			Thin Muck Surface (C	7)		Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)			Other (Explain in Rem	narks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)						Geomorphic Position (D2)
Inundation Visible on Aerial	Imagery (B7)				Shallow Aquitard (D3)
Water-Stained Leaves (B9)						Microtopographic Relief (D4)
Aquatic Fauna (B13)						FAC-neutral Test (D5)
Field Observations:						
Surface Water Present? Y	′es 🔿	No 🖲	Depth (inches):			
Water Table Present? Y	′es 🖲	No \bigcirc	Depth (inches):	0		
Saturation Present? (includes capillary fringe)	'es 🖲	No \bigcirc	Depth (inches):	0	Wetland Hydi	rology Present? Yes 👻 NO 🖯
Describe Recorded Data (stre	am gaug	je, monito	ring well, aerial photos,	previous insp	ections), if avail	able:
Remarks:						
Source of hydrology is spring	seeps					
bource of fryarology to opting	seepsi					

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

		Do	ominant		Sampling Point: <u>W-MRK-006 PEM</u>
		Re	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	-76 COVEI		over	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:(A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:(B)
4	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
0 7	0		0.0%		Brouplance Index workshoet
0	0		0.0%		Total % Cover of Multiply by
0	0 :	 To=	tal Cove	r	OBL species $25 \times 1 = 25$
Sapling-Sapling/Shrub Stratum (Plot size:)		_			EACW species $100 \times 2 = 200$
1	0		0.0%		$\begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix} = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix} = \begin{bmatrix} 1 & 0 \\ 0 & 0 \end{bmatrix}$
2	0		0.0%		FAC species 10×40
3	0		0.0%		FACU species $10 \times 4 = 10$
4	0		0.0%		UPL species $-\frac{1}{2}$ x 5 = $-\frac{1}{2}$
5	0		0.0%		Column Totals: 135 (A) 265 (B)
6	0	Ц.	0.0%		Prevalence Index = $B/A = 1.963$
7	0	Ц.	0.0%		Hydrophytic Vegetation Indicators:
8	0	Ц.	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	Ц.	0.0%		✓ Dominance Test is > 50%
10	0	Ш	0.0%		✓ Prevalence Index is ≤3.0 1
Shrub Stratum (Plot size:)		= To	tal Cove	r	Morphological Adaptations ¹ (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH).
Herb Stratum (Plot size: <u>5' radius</u>)	:	= То	tal Cove	r	regardless of height.
1. Juncus effusus	75		55.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1 m) tall.
2. Scirpus atrovirens	25		18.5%	OBL	Herb stratum – Consists of all herbaceous (non-woody)
3. Cyperus esculentus	25		18.5%	FACW	plants, regardless of size, and all other plants less than 3.28
4. Phleum pratense	10		7.4%	FACU	Woody vines – Consists of all woody vines greater than 3.28
5	0		0.0%		n meight.
6	0		0.0%		Five Vegetation Strata:
7	0		0.0%		Tree - Woody plants, excluding woody vines approximately
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height
Woody Vine Stratum (Plot size:)	135 :	= To	tal Cove	r	Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
5	0		0.0%		
6.	0		0.0%		Hydrophytic Vegetation
· · ·	0	= To	otal Cove	r	Present? Yes 🔍 No 🔾
Pomarka (Includo photo numboro horo or on a consecto cho					

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers Soil

Sampling Point: W-MRK-006 PEM

Profile Desc	ription: (Describe to	the depth	needed to docum	nent the indi	cator or co	onfirm the	absence of indicators.)		
Depth	Matrix			Redox Feat	ures				
(inches)	Color (moist)		Color (moist	:) %	Tvpe ¹	Loc ²	Texture	Remar	ks
0-14	2.5Y 5/1	80	10YR 5/6	20	C	M	Silty Clay Loam		
	2.5Y 6/1		10YR 5/8	25	C		Clay		
. <u> </u>			·			. <u> </u>			
¹ Type: C=Cor	ncentration. D=Depletio	on. RM=Rec	luced Matrix, CS=C	overed or Coa	ted Sand G	rains ² Loca	ation: PL=Pore Lining. M=I	Matrix	
Hydric Soil	Indicators:			(07)			Indicators for Proble	ematic Hydric S	ioils ³ :
	(A1)		Dark Surfa	ce (S7)		147 140	2 cm Muck (A10)	(MLRA 147)	
Black His	tic (A3)			Selow Surface	(58) (MLRA MI DA 147	147,148) 148)	Coast Prairie Red	ox (A16)	
	n Sulfide (A4)			ved Matrix (F2	((((((((((((((((((((((((((((((((((((140)	(MLRA 147,148)		
Stratified	Layers (A5)		Depleted M	latrix (F3)	-)		(MLRA 136, 147)	ain Soils (F19)	
2 cm Muc	ck (A10) (LRR N)		Redox Dar	k Surface (F6)			Very Shallow Dar	k Surface (TE12)	
	Below Dark Surface (A	A11)	Depleted D	ark Surface (F	-7)		Other (Explain in	Remarks)	
Thick Date	rk Surface (A12)		Redox Dep	ressions (F8)				,	
Sandy Mu MLRA 14	uck Mineral (S1) (LRR I 7, 148)	Ν,	Iron-Manga MLRA 136)	anese Masses	(F12) (LRR	Ν,			
Sandy Gl	eyed Matrix (S4)		Umbric Su	rface (F13) (M	ILRA 136, 1	22)	³ Indicators of	hydrophytic yeae	tation and
Sandy Re	edox (S5)		Piedmont I	loodplain Soil	s (F19) (ML	.RA 148)	wetland hyd	drology must be p	present,
Stripped	Matrix (S6)		Red Paren	t Material (F21	l) (MLRA 12	27, 147)	unless di	sturbed or proble	matic.
Restrictive L	ayer (if observed):								
Type:	shec).						Hydric Soil Present?	Yes 💿 N	lo O
Deput (inc									
Remarks:									

Upland 05, 06

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sa	ampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampl	ing Point: V	N-MRK-005-006 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range:	s 25 T Ce	enter - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex,	none): convex	Slope: <u>2.0%</u> / <u>1.1</u> °
Subregion (LRR or MLRA): LRR N Lat.:	40.572493 Lo	ong.: -81.062671	Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8 to	15 percent slopes NW	classification: N/A	
Are climatic/hydrologic conditions on the site typical for this time of y Are Vegetation , Soil , or Hydrology significant Are Vegetation , Soil , or Hydrology naturally p	ear? Yes No (If n ly disturbed? Are "Norma roblematic? (If needed	o, explain in Remarks al Circumstances" pre , explain any answers	:.) :sent? Yes
Summary of Findings - Attach site map showing s	ampling point location	ons, transects, i	important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes O Yes O Yes O	No (•) No (•) No (•)	Is the Sampled Area within a Wetland?	Yes 🔿 No 🖲
Remarks: Upland data point for W-MRK-005.	. Surroundin	ng land use i	s hayfield and existing right-of-way.	

Hydrology

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one required; o	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)		True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizospheres along Living R	Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils	s (C6) Crayfish Burrows (C8)
Drift deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imag	gery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:	0 0		
Surface Water Present? Yes	🔾 No 🔍	Depth (inches):	
Water Table Present? Yes	O No 🖲	Depth (inches):	
Saturation Present? (includes capillary fringe) Yes	O No 🔍	Depth (inches):	Wetland Hydrology Present? Yes 🔾 NO 👻
Describe Recorded Data (stream	gauge, monito	ring well, aerial photos, previous inspe	pections), if available:
Remarks:			
No source of hydrology.			
,			

Upland 05, 06 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Do	minant		Sampling Point: <u>W-MRK-005-006 UPL</u>
Tree Stratum (Plot size:)	Absolute % Cover	– Sp Re Co	l.Strat.	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL FACW, or FAC: 0 (A)
2	0		0.0%		
3	0		0.0%		Total Number of Dominant
۵ ۵	0		0.0%		Species Across Air Strata. \underline{I} (b)
5	0		0.0%		Percent of dominant Species
6	0		0.0%		That Are OBL, FACW, or FAC:(A/B)
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
0	0 :	= To	tal Cove		OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot size:)					EACW species $0 \times 2 = 0$
1	0		0.0%		EAC species $0 \times 3 = 0$
2	0		0.0%		FAC species $130 \times 4 = 520$
3	0		0.0%		FACU species $x 4 = 520$
4	0		0.0%		UPL species $10 \times 5 = 50$
5	0		0.0%		Column Totals: <u>140</u> (A) <u>570</u> (B)
6	0		0.0%		Prevalence Index = $B/A = 4.071$
7	0		0.0%		Hydrophytic Vegetation Indicators:
8	0		0.0%		Rapid Test for Hydrophytic Vegetation
9	0	\square_{-}	0.0%		Dominance Test is > 50%
10	0		0.0%		Prevalence Index is $\leq 3.0^{1}$
Shrub Stratum (Plot size:)		= To	tal Cove	r	Morphological Adaptations ¹ (Provide supporting
1.	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5.	0		0.0%		Definition of Vegetation Strata:
6.	0		0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Horb Stratum (Plot size: 5' radius)	0 :	= To	tal Cove	-	regardless of height.
1 Phloum protonce	100		71 4%	FΔCU	Sapling/shrub stratum – Consists of woody plants, excluding
Clashama hadaraasa	20		14 3%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Giechonia neueracea	10		7 1%		plants, regardless of size, and all other plants less than 3.28
J. Daucus carola	10		7.1%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
5	0	\square	0.0%		ft in height.
6	0	\square	0.0%		
7	0	\square	0.0%		Five Vegetation Strata:
8	0		0.0%		Tree - Woody plants, excluding woody vines, approximately
8	0		0.0%		diameter at breast height (DBH).
9	0		0.0%		Sapling stratum – Consists of woody plants, excluding
10	0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	140	 = To	tal Cove		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)					Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1	0		0.0%		woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height
4	0		0.0%		····g····
5	0		0.0%		Hydrophytic
6	0	\square_{-}	0.0%		Vegetation Procent? Yes No •
	0	= To	otal Cove	r	
Remarks: (Include photo numbers here or on a separate she	et.)				

Remarks. (Include photo numbers here of on a separate sheet.)

Sampling Point: W-MRK-005-006 UPL

Depth (inches) Matrix Redox Features Matrix Remarks 0-14 2.5Y 5/2 100	
Color (moist) % Color (moist) % Type 1 Loc2 Texture Remarks 0-14 2.5Y 5/2 100 Silt Loam Silt Loam 14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam	
0-14 2.5Y 5/2 100 Silt Loam 14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam	
14-16 2.5Y 5/1 95 2.5Y 6/6 5 C M Silty Clay Loam	
Image:	
Thick Dark Surface (A12) Redox Depressions (F8)	
Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148) Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
Sandy Gleyed Matrix (S4)	
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic vegetation and wetland hydrology must be present,	
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.	
Restrictive Layer (if observed):	
Type:	





Field Id: W-MRK-006 PEM Second Impact System Integration of the system of the	Site: AEP (Carrollton-	Gable	Rater(s): N	I.R.Kline, R.C	.Massa	Date:	11/6/2018
Image: Sector of the sector						Field Id:		
Autor to represent the representation of the sequence of the se		18.5	1			W-MRK-006 PEM		
Dimension Metric 5. Special Wetlands. at top: Second Check all that apply and score as indicated. at top: Bog (10) Bog (10) Relative Ker prayes (10) Bog (10) Bog (10) Bog (10) Relative Ker prayes (10) Bog (10) Bog (10) Bog (10) Relative Ker prayes (10) Bog (10) Store all present uning toto 3 scale. O Adventor comprises significant part or wore, of wetland's 2 Present and either comprises significant part or wore, of wetland's 2 Store all present uning (10) Bog (10) Bog (10) Bog (10) Bog (10) Bog (10)			1					
u Tots Metric 5. Special wettands. ettyp: water Peep(10) Code growth forest (10) Code growth forest (10) Lake Fie cosstal/fibulary wetland-urreatricted hydrology (10) Lake Fie cosstal/fibulary wetland-urreatricted hydrology (10) Lake Fie cosstal/fibulary wetland-urreatricted hydrology (10) Lake Fie cosstal/fibulary wetland-urreatricted hydrology (10) Lake Fie cosstal/fibulary wetland-urreatricted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Lake Fie cosstal/fibulary wetland-setticted hydrology (10) Cost Restrict C Status (10) Restrict C Status (10) Scote all present using 0 to 3 scale. Present and chine comprises significant part of wetland's 3 Scote all present using 0 to 3 scale. Present and comprises significant part of wetland's 3 Benergent Benergent hydrol(1) Moderate (1) Neeped wetland (10) Coverage of Invasive plants. Refer Table 10 RAM long form for list. Add are wetland to Status (10) Scote all present u		subtotal this p	page					
actors Check all that apply and score as indicated. Bog (10) Fer (10) Bog (10) Seale Bog (10) Fer (10)		0 18.5	Metric 5. Spec	cial Wetlands				
Big (1) Big (1) Construction Big (1) Moderate (1) Big (1)	max 10 pts.	subtotal	Check all that ap	oply and score a	as indicated.			
Autor in the intervention of the interventi			Bog (10)					
Mature forested vertion (f) Lake Eric coastalithibulary wetland-urrestricted hydrology (f) Lake Eric coastalithibulary wetland-restricted hydrology (f) Lake Eric coastalithibulary wetland-restricted hydrology (f) Relict Wet Praires (CAC Openning) (f0) Relict Wet Praires (CAC Openning) (f0) Relict Wet Praires (CAC Openning) (f0) Relict Wet Praires (CAC Openning) (f0) Relict Wet Praires (CAC Openning) (f0) Vector So Wettand Vegetation Communities, interspersion, microtopography. Aquatic bed Present and either comprises sonillator or usage (f0) Shub Present and either comprises sonillator or usage (f0) Open water Present and either comprises sonillator or usage (f0) Bit hord open water So hord or the greater and either comprises sonillicant part to Wetland's 1 Vegetation and is of hoigd quality Present and either comprises sonillicant part to wetland's 1 Vegetation and is of hoigd quality Present and either comprises sonillicant part to wetland's 3 Bit hord hord in the openne sonic open			Fen (10)					
Lake Eric coastal/tributary wetand-unrestricted hydrology (10) Lake File coastal/tributary wetand-unrestricted hydrology (10) Lake File coastal/tributary wetand-vestricted hydrology (10) Relit Wet Prairs (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songhird/water senticed hydrology (10) Category 1 Wetland. See Question 5 Qualitative Rating (-10) Roteit G. Plant communities, interspersion, microtopography. Score all present using 0 to 3 scale. Aquatic bed Emergent Studid B. horizontal (plan view) Interspersion. Select only one. High (5) Moderately hybr(4) Open water Down (0) Stated 10 point for list. Refer Table 10 RAM long form for list. Refer Table 10 RAM long form for list. Add or deduct points for coverage Extensive 75% cover (-1) Narise Score all present using 0 to 3 scale. Vegetated nummoks/hussuks Cost all proceed hybring hybring down and be absent cost of the space score all and the space score all and the space score of rate threatened or endangered space Moderate 2575% cover (-1) Narise basent cost is cover (0) Narise bas			Mature forested wetla	nd (5)				
Lake Eric coastal/fibulary wetland-restricted hydrology (5) Relict Wet Prairies (30k Openings) (10) Relict Wet and See Question Communities, interspersion, microtopography. Wet and See Question Soundative Reliance (10) Relict Wet and See Question Communities, interspersion, microtopography. Wet and So Reliance (10) Relict Wet and See Question Communities, interspersion, microtopography. Wet and So Reliance (10) Relict Wet and See Question Addition (10) Relict Wet and See Question (10) Relict Microtopography Relict Wet and See Question (10) Relict (10)			Lake Erie coastal/tribu	tary wetland-unrestr	icted hydrology (10)			
Lake Final Sult of Pariases (10) Chick Wei Praives (10) Bindic Wei Praives (10) Chick Wei Praives (10) Significant ingratory songbindwater foul habitat or usage (10) Chick Wei Praives (10) Stope Motion Motion Metric O. Flant communities, interspersion, microtopography. Scope Scope all present using 0 to 3 scale. Stope Aquada bed Scope Scope all present using 0 to 3 scale. Scope all present using 0 to 3 scale. Present and either comprises scaling and of weiland's 1 Scope all present using 0 to 3 scale. Present and either comprises scaling and of weiland's 1 Scope all present using 0 to 3 scale. Present and either comprises scaling and of weiland's 1 Scope all present using 0 to 3 scale. Present and either comprises scaling and of weiland's 1 Scope all present using 0 to 3 scale. Present and comprises scaling and or weiland's 3 Scope all present using 0 to 3 scale. Present and comprises scaling and the comprises a small part and is of high quality Constraint (plan twwise plants. Refor Scope all present using 0 to 3 scale. Scope all present using 0 to 3 scale. Present and either comprises a spinform part and the scope all present using 0 to 3 scale. Scope all present using 0 to 3 scale. Present and e			Lake Erie coastal/tribu	tary wetland-restrict	ed hydrology (5)			
Arrown occurrence statifiederal threatened or endangered species (10) Significant migratory songhrid/water for Mabilat or usage (10) Category 1 Welland. See Question 5 Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub Forest Mudflats Other Other Other Other Category 1 () Moderately high(4) Moderately high(2) Moderately high(3) Moderately low (2) Low (1) None (0) 6. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Moderately high (5) Moderately high(6) Moderately high(6) Moderately high(6) Moderately high(6) Moderately high(6) Moderately high(6) Moderately high(6) Moderately high (5) Moderately high(6) Moderately high but generally high but ge			Relict Wet Praires (10)	(10)			
Subtrain the second state of the second state			Known occurrence sta	, ite/federal threatene	d or endangered spe	cies (10)		
2 20.5 Metric 6. Plant communities, interspersion, microtopography. 6. Wetland Vegetation Communities, interspersion, microtopography. Score all present using 0 to 3 scale. Aquatic bed Bridge Bridge Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brows Brow			Significant migratory s	ongbird/water fowl h	abitat or usage (10)			
2 20.30 Metric 6. Plant communities, interspersion, microtopography. sexteel 6. Wetland Vegetation Communities, Score all present using 0 to 3 scale. Aquatic bed Aquatic bed Freesent and either comprises small part of wetland's 1 Berergent Strub Strub Forest Mudfalas Open water Other Open water Other Benergent Strub Present and either comprises significant part of wetland's 1 Wegetation and is of moderate quality or comprises a small part of wetland's 1 Wegetation and is of moderate quality or comprises a small part of wetland's 3 Woderately high(4) Moderately low (2) Low (1) None (0) 6. Coverage of invasive plants. Refer Table 1 ORAM long form for isls. Add or deduct points for coverage Extensive >75% cover (-3) Moderate 25-75% cover (-1) Neber (1) Neber (1) Obtimumuck/shussucks Coarse woody debris >156m (6in) Standing dead >255m (10in) dbt Amphibian breeding pools Amphibian breeding pools Atbeent <0. In anglanal quality			Category 1 Wetland. S	See Question 5 Qual	itative Rating (-10)			
subtest Ge. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Vegetation Community Cover Scale Aquatic bed Image: Score all present using 0 to 3 scale. 0 Absent or comprises significant part of wetland's 1 vegetation and is of moderate quality. or comprises a significant part but is of low quality Brow water Other 2 Present and either comprises significant part of wetland's 1 vegetation and is of moderate quality or comprises a small part and is of high quality Brow water Other 3 Present and either comprises significant part of wetland's 1 vegetation and is of moderate quality or comprises a small part and is of high quality Brow water 0 Absent or commises significant part of wetland's 1 Brow water 0 Present and either comprises significant part of wetland's 1 Brow water 0 Present and either comprises significant part of wetland's 2 Brow of the deat opins is of non-rative spoises 3 Present and either comprises significant part of wetland's 3 Score all present using 0 form for list. Add or deduct points for coverage A predominance of nature spoise A predominance of nature spoise Brow of deduct points for coverage A predominance of nature spoise A predominance of nature spoise Moderate 25-7% cover (-5) A predominance of natative spop absent or virtually absent - 00.Tha (C1AZ O		2 20.5	Metric 6. Plan	t communitie	es, interspers	ion, microtopography.		
Score all present using 0 to 3 scale. 0 Aquatic bed Aquatic bed 1 Present and either comprises small part of wetland's 1 Yegetation and is of moderate quality, or comprises a small part of wetland's 1 Yegetation and is of moderate quality, or comprises a small part of wetland's 2 Yegetation and is of moderate quality, or comprises a small part of wetland's 3 Yegetation and is of moderate quality or comprises a small part of wetland's 3 Yegetation and is of high quality 3 Present and comprises significant part or more, of wetland's 3 Yegetation and is of high quality Yegetation and is of high quality Score all present using 0 to 3 scale. Vegetation and is of high quality None (0) C. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Native spp are dominant component of the vegetation, mod although nonnative spp bigh Absent (1) Moderate 25.75% cover (-5) Absent (-1) Merative Description of Vegetation Quality Appresent and Open Water Class Quality Yegetated hummucks/tussucks C. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Appretion and is persent using 0 to 3 scale. Vegetated hummucks/tussucks C. Coverage of invasive plants. Refer Car deduct poin	max 20pts.	subtotal	6a. Wetland Veg	etation Commu	nities.	Vegetation Community Cov	er Scale	
Aquatic bed Aquatic bet Aquatic bed Aquatic bed Aquatic bed Aquatic bet Aquati			Score all present using	g 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 a	acres) contiguous area	
1 Energent Sinub Shrub Shrub Shrub Significant part but is of low quality Open water Difer Other Sh. borizontal (plan view) interspersion. Select only one. High (5) Moderately high(4) Moderately (aulty) Moderately (ow (2) Low (1) Low (1) Sc. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Native spp are dominance of native species Moderately 25-75% cover (3) Sparse 5-25% cover (-1) Neary absent -5% cover (0) Absent (1) Sc. Careage oil present using 0 to 3 scale. Vegetated hummucks/tussucks Vegetated hummucks/tussucks Careas woody debis > 156m (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography. Coreas evory debis > 155m (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Corer Scale Neary absent -5% cover (2) Vegetated hummucks/tussucks 2 Qareate time contract and the comprises of more Microtopography Cover Scale 0 Absentt = 1 Present very small amounts			Aquatic bed		1	Present and either comprises small pa	art of wetland's 1	
Forest 2 Present and either comprises significant part of wetland's 2 Wudfats Open water 0 Other 3 Present and either comprises significant part of wetland's 3 wegetation and is of high quality 3 Present and comprises significant part or more, of wetland's 3 wegetation and is of high quality 3 Present and comprises significant part, or more, of wetland's 3 wegetation and is of high quality 3 Present and other quality or comprises a small Moderately high (5) Moderately high(4) Secord finance of nonative or low Moderately low (2) Low (1) Low (2) Low (2) Den (1) Correage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Native spa are dominance of native species Moderately 57.5% cover (-3) X Sparse 5-25% cover (-3) A predominance of native species, with nonnative sph high and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and of restore spa absent or virtually absent, and high spp diversity and of redominance of rare. threatened, or endangered spp to Moderate 25-75% cover (-3) Absent (1) Wudflat and Open Water Class Quality Vegetated hummucks/lussucks 2 Moderate 1 to -4ha (2.47 to 9.88 acres) Corarse woody debris > 15cm			Shrub			significant part but is of low quality,	or comprises a	
Wudfats Ugeration and is of moderate quality or comprises a small part and is of high quality Other			Forest		2	Present and either comprises significa	ant part of wetland's 2	
Attensive >75% cover (-5) Score all present using 0 to 3 scale. Vegetation and is of high quality Narrative Description of Vegetation Q			Mudflats			vegetation and is of moderate quality	or comprises a small	
Other Spect only one. High (6) Moderately high(4) Moderately high(4) Moderately low (2) 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 (-1) Noeardy absent <5% cover (-1)			Open water		- 2	part and is of high quality	t or more of wetland's 2	
Select only one. High (5) Migh (5) Marrative Description of Vegetation Quality Moderately ligh(4) Moderately ligh(2) Moderately ligh (2) Low (1) None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage 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 generallywio presence of rare Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) Moderate 25-75% cover (-1) Apredominance of native species, with nonnative spp bigh 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 Moderate 25-75% cover (-1) Mudflat and Open Water Class Quality Native app addoming dead >25cm (10in) dbh Mudflat and Open Water Class Quality O Absent (1) O Absent - 0.14n (0.247 to 9.88 acres) O Coarse woody debris >15cm (6in) Starting dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale O Absent Present very small amounts or finore common of marginal quality 2 Present revery small amounts of highest quality 2 Present in moderate or greater amounts<			6b. horizontal (plan v	/iew) Interspersion		vegetation and is of high quality	t, or more, or wettand's 5	
High (5) Narrative Description of Vegetation Quality Moderately high(4) Moderately (3) Moderate (3) Narrative Species Moderately low (2) Native spp are dominant component of the vegetation, mod although nonative 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 Get Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Moderate 25-75% cover (-5) Moderate 25-75% cover (-5) Apredominance tolerant native spp bligh 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 to Nearly absent (1) Muderate 10 - Scover (0) Absent (1) Muderate 1 to <4ha (2.47 to 9.88 acres)			Select only one.	,		5 517		
Moderate (3) Low (2) Low (1) None (0) None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Native spp are dominance of anonative and/or disturbance tolerant native species Moderate (3) Native spp are dominance of nonative of low Moderate (3) Native spp are dominance of nonative of nonative spp (1) None (0) A predominance of nonative and/or disturbance tolerant native species Moderate (2, 275% cover (-5) Moderate (2, 75% cover (-1)) Moderate (2, 75% cover (-1)) Nearly absent <5% cover (0)			High (5)			Narrative Description of Vegetation	Quality	
X Moderately low (2) Low (1) 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 Table 1 ORAM long form for list. Add or deduct points for coverage A predominant 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 Extensive >75% cover (-5) Moderate 25.75% cover (-5) Moderate 25.75% cover (-1) Nearly absent <5% cover (-0)			Moderately high(4)			Low spp diversity and/or predominance disturbance tolerant pative species	e of nonnative or low	
Low (1) None (0) G. 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) X Sparse 5-25% cover (-1) Nearly absent (-1) G. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography. Standing dead >25cm (10in) dbh Amphibian breeding pools Attend to the data and the			x Moderately low (2)			Native spp are dominant component of	of the vegetation, mod	
None (0) c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Ad predominance of native species, with nonnative spp high Moderate 25-75% cover (-3) A predominance of native species, with nonnative spp high X Sparse 5-25% cover (-1) Nearly absent (3% cover (0) Absent (1) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 0 Vegetated hummucks/tussucks 2 Vegetated hummucks/tussucks 2 Standing dead >25cm (10in) dbh 3 Amphibian breeding pools 4 Microtopography Cover Scale 0 Absent 0 Basent 3 Present in moderate armounts, but not of highest quality			Low (1)			although nonnative and/or disturbance	e tolerant native spp	
ategory 1 20.5 GRAND TOTAL(max 100 pts) GRAND TOTAL(max 100 pts) File Add to the file at the start of the sta			None (0)	aine alaata Dafaa		can also be present, and species dive	rsity moderate to	
ategory 1 20.5 GRAND TOTAL (max 100 pts) Generate 25/5% Counce of the sector of			Table 1 ORAM long for	sive plants. Refer		threatened or endangered spn to	sence of rare	
Extensive >75% cover (-5) and/or disturbance tolerant native spp absent or virtually Moderate 25-75% cover (-3) absent, and high spp diversity and offen, but not always, the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0)			or deduct points for co	verage		A predominance of native species, wi	th nonnative spp high	
Moderate 25-75% cover (-1) absent, and high spp diversity and offen, but not always, the presence of rare, threatened, or endangered spp Nearly absent <5% cover (0)			Extensive >75% cover	r (-5)		and/or disturbance tolerant native spp	absent or virtually	
X Sparse 3-25% cover (0) Absent (1) Mudflat and Open Water Class Quality 6d. Microtopography. 0 Score all present using 0 to 3 scale. 1 Coarse woody debris >15cm (6in) 3 Standing dead >25cm (10in) dbh Microtopography Cover Scale 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 2 Present in moderate or greater amounts			Moderate 25-75% cov	er (-3)		absent, and high spp diversity and oft	en, but not always,	
Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. Vegetated hummucks/tussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools 4tegory 1 20.5 GRAND TOTAL(max 100 pts) Mudfiat and Open Water Class Quality 0 Absent <0.1 ha (0.247 acres) 2 Moderate 1 to <4ha (0.247 acres) 2 Moderate 1 to <4ha (2.47 to 9.88 acres) or more 2 Moderate 1 to <4ha (2.47 to 9.88 acres) 3 High 4ha (9.88 acres) or more 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			X Sparse 5-25% cover (Nearly absent <5% co	- i) ver (0)		the presence of fale, threatened, of e	nuangereu spp	
6d. Microtopography. 0 Absent <0.1 fa (0.247 acres)			Absent (1)			Mudflat and Open Water Class Qua	lity	
Score all present using 0 to 3 scale. 1 Low 0.1 to <1ha (0.247 to 2.47 acres)			6d. Microtopography		0	Absent <0.1ha (0.247 acres)		
ategory 1 20.5 GRAND TOTAL (max 100 pts) 2 in Voderate 10 Sector (10 sector) 2 in Voderate 10 Sector 3 High 4ha (9.88 acres) or more 3 High 4ha (9.88 acres) or more 3 High 4ha (9.88 acres) 4 hore to the sector 4 hore to the sector 4 hore to the sector 0 Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 3 Present in moderate or greater amounts			Score all present using	g 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)	20)	
Standing dead >25cm (10in) dbh Microtopography Cover Scale Amphibian breeding pools Absent 1 Present very small amounts or if more common of marginal quality 2 Present in moderate amounts, but not of highest quality 2 Present in moderate amounts of highest quality 3 Present in moderate or greater amounts			Coarse woodv debris 3	>15cm (6in)	- 2 3	High 4ha (9.88 acres) or more		
Amphibian breeding pools 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 20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts			Standing dead >25cm	(10in) dbh		5 (***)		
ategory 1 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 20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts			Amphibian breeding p	ools	-	Microtopography Cover Scale		
ategory 1 2 Present in moderate amounts, but not of highest quality 20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts					0	Absent Present very small amounts or if more	common	
ategory 1 2 Present in moderate amounts, but not of highest quality or in small amounts of highest quality 20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts					1	of marginal quality	CommUn	
ategory 1 quality or in small amounts of highest quality 20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts					2	Present in moderate amounts, but no	of highest	
20.5 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts	Category 1					quality or in small amounts of highest	quality	
	2	0.5 GRAND	TOTAL(max 100 pts)	3	Present in moderate or greater amoun	nts	

and of highest quality



Client Name:

Wetland 06

November 6, 2018 **Description:**

AEP

Date:

PEM

Category 1

Facing North

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No.

60582598







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 06	
Date:	
November 6, 2018	DA A Start and a start free second seco
Description:	
PEM	
Category I	
Facing South	UH 2 X SHALL CHER AND THE SALE AND COMPLETE
6	





AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project 60582598

Wetland 06 Date: November 6, 2018 Description: PEM Category 1 Soil Pit

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-007 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Concave Slope: / °
Subregion (LRR or MLRA): LRR N Lat.:	40.571705 Long.: -81.061710 Datum: NAD83
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 percent	slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of ye	$_{ m ear?}$ Yes $ullet$ No $igodoldsymbol{ imes}$ (If no, explain in Remarks.)
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant	ly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodot$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p	roblematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing s	ampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes $ullet$ No $igodoldsymbol{ imes}$	
Hydric Soil Present? Yes $oldsymbol{eta}$ No $igodol{b}$	Is the Sampled Area Yes 💿 No 🔿
Wetland Hydrology Present? Yes \bullet No \bigcirc	within a Wetland?
open ended and continues outside current study area. The wetland	boundary follows edge of depression.
Hydrology	
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	s (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Ddor (C1) Drainage Patterns (B10)
Saturation (A3)	eres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	ed Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	tion in Tilled Soils (C6) Crayfish Burrows (C8)
Drift deposits (B3)	(C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat of Clust (64) Other (Explain in R	temarks)
Interposits (B3)	Shallow Aquitard (D2)
Water-Stained Leaves (B9)	
	$\square \text{ Microtopographic Relief (D4)}$
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Precent? Ves No Death (instee)	
Saturation Present? (includes capillant fringe) Yes No Depth (inches): Depth (inches):	0 Wetland Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	
Source of hydrology is spring seeps.	

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

	Dominant		ancsi	Sampling Point: W-MRK-007 PEM		
	Absolute	– Species? – Rel.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species		
1	0	0.0%		That are OBL, FACW, or FAC:(A)		
2	0	0.0%		Tabl Newborn (Device of		
3	0	0.0%		Species Across All Strata: 2 (B)		
4	0	0.0%				
5	0	0.0%		Percent of dominant Species		
6	0	0.0%				
7	0	0.0%		Prevalence Index worksheet:		
8	0	0.0%		Total % Cover of: Multiply by:		
Contine Contine (Church Stratum (Plot size:	0 =	= Total Cover		OBL species $50 \times 1 = 50$		
Sapling-Sapling/Shrub Stratum (Hot Size.	, 0	0.0%		FACW species 100 x 2 = 200		
1		0.0%		FAC species $0 \times 3 = 0$		
2		0.0%		FACU species $20 \times 4 = 80$		
3				UPL species $0 \times 5 = 0$		
4		0.0%		Column Totals: 170 (A) 330 (B)		
o						
7				Prevalence Index = $B/A = 1.941$		
0				Hydrophytic Vegetation Indicators:		
ð				Rapid Test for Hydrophytic Vegetation		
9		0.0%		✓ Dominance Test is > 50%		
10				✓ Prevalence Index is \leq 3.0 ¹		
Shrub Stratum (Plot size:)				Morphological Adaptations ¹ (Provide supporting		
1	0	0.0%		data in Remarks or on a separate sneet)		
2	0	0.0%				
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
4	0	0.0%				
5	0	0.0%		Definition of Vegetation Strata:		
6	0	0.0%		Four Vegetation Strata:		
7	0	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size: <u>5' radius</u>)	=	= Total Cover		regardless of height.		
1. Juncus effusus	50	29.4%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1 m) tall.		
2. Scirpus atrovirens	50	29.4%	OBL	Herb stratum – Consists of all herbaceous (non-woody)		
3. Phalaris arundinacea	25	14.7%	FACW	plants, regardless of size, and all other plants less than 3.28		
4. Cyperus esculentus	25	14.7%	FACW	Woody vines – Consists of all woody vines greater than 3.28		
5. Phleum pratense	20	11.8%	FACU	it in neight.		
6	0	0.0%		Five Vegetation Strata:		
7	0	0.0%		Tree - Woody plants excluding woody vines approximately		
8	0	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in		
9	0	0.0%		diameter at breast height (DBH).		
10	0	0.0%		sapling stratum – consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and		
11	0	0.0%		less than 3 in. (7.6 cm) DBH.		
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height		
Woody Vine Stratum (Plot size:)	170 =	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)		
1	0	0.0%		plants, including herbaceous vines, regardless of size, and		
2	0	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.		
3	0	0.0%		Woody vines - Consists of all woody vines, regardless of		
Δ	0	0.0%		height.		
5	0	0.0%				
6	- <u> </u>	0.0%		Hydrophytic Vegetation		
U		= Total Cove	r	Present? Yes No		
Demontre (Techuda abata ananbara bara an an a concerta aba			-			

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Soil

Sampling Point: W-MRK-007 PEM

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)	%	Tvpe ¹	Loc ²	Texture	Rema	arks
0-16	2.5Y 4/1	75	10YR 5/6	25	C	M	Silty Clay Loam		
-									
				-			,		
¹ Type: C=Con	centration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=M	latrix	
Hydric Soil 1	Indicators:						Indicators for Proble	matic Hydric	Soils ³
Histosol (A1)		Dark Surface (S7)					. 30113
Histic Epi	pedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)	
Black Hist	tic (A3)		Thin Dark Surf	ace (S9) (N	MLRA 147, 3	148)	Coast Prairie Redo	x (A16)	
Hydroger	n Sulfide (A4)		Loamy Gleyed	Matrix (F2))			vin Soile (E10)	
Stratified	Layers (A5)		✓ Depleted Matri	x (F3)			(MLRA 136, 147)	III 30IIS (F19)	
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12	2)
Depleted	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in)	Remarks)	,
Thick Dar	k Surface (A12)		Redox Depress	ions (F8)				,	
Sandy Mu MLRA 142	uck Mineral (S1) (LRR N 7, 148)	l,	Iron-Manganes MLRA 136)	e Masses ((F12) (LRR	Ν,			
Sandy Gle	eved Matrix (S4)		Umbric Surface	e (F13) (MI	LRA 136, 12	22)			
Sandy Re	dox (S5)		Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	³ Indicators of h	hydrophytic ve	getation and
Stripped	Matrix (S6)		Red Parent Ma	terial (F21) (MLRA 12	7, 147)	unless dis	turbed or prob	e present, blematic.
Restrictive L	ayer (if observed):								
Туре:							Hydric Soil Present?		No
Depth (inc	:hes):								
Remarks:									

Upland 07

FRMINATION DATA FORM Fratework Merutains and Bindmont Basian

WEILAND DETERMINATION	DATA FORM - Eastern Mountains and Pleumont Region
Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 06-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-007 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex Slope: 3.0% / 1.7 °
Subregion (LRR or MLRA): LRR N Lat.:	40.571532 Long.: -81.061573 Datum: NAD83
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 percent	t slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y	ear? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significant	:ly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodoldsymbol{ imes}$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally p	problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing s	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes O No 🖲	
Hydric Soil Present? Yes O No 🔍	Is the Sampled Area $\gamma_{ee} \cap \gamma_{ee}$
Wetland Hydrology Present? Yes O No •	within a Wetland? Yes \bigcirc No \bigcirc
Hydrology	
Primary Indicators (minimum of one required: check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Surface Soil Cracks (B0)
High Water Table (A2)	Odor (C1) Drainage Patterns (B10)
Saturation (A3)	eres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	ced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	ction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift deposits (B3)	e (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in	Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
□ Aquatic Fauna (B13)	FAC-neutral Test (D5)
Field Observations:	
Surface water Present? Tes C INC Depth (Inches):	
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes O No 🖲
(includes capillary fringe) Yes No O Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
No source of hydrology.	

Upland 07

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

		Dominant		Sampling Point: <u>W-MRK-007 UPL</u>		
(Plot size:	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:		
Tree Stratum (Plot Size)	0		Status	Number of Dominant Species		
1		0.0%		That are OBL, FACW, or FAC: (A)		
2		0.0%		Total Number of Dominant		
3				Species Across All Strata: (B)		
4		0.0%		Percent of dominant Species		
5		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)		
6 7		0.0%		Durana lau ao Tanàna mandraka ata		
7		0.0%		Total % Cover of: Multiply by:		
8						
Sapling-Sapling/Shrub Stratum (Plot size:))			$\frac{0}{2} = \frac{1}{2} = \frac{1}{2}$		
1	0	0.0%		FACW species $0 \times 2 = 0$		
2	0	0.0%		FAC species $0 \times 3 = 0$		
3	0	0.0%		FACU species 140 x 4 = 560		
4.	0	0.0%		UPL species 10 x 5 = 50		
5.	0	0.0%		Column Totals: <u>150</u> (A) <u>610</u> (B)		
6.	0	0.0%		Prevalence Index = $B/A = 4.067$		
7.	0	0.0%				
8	0	0.0%		Rydropnytic vegetation Indicators:		
9	0	0.0%				
10	0	0.0%		$\Box \text{Dominance lest is } > 50\%$		
	0	= Total Cover		Prevalence Index is ≤3.0 ⁺		
Shrub Stratum (Plot size:)	0	0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must		
4.	0	0.0%		be present, unless disturbed or problematic.		
5	0	0.0%		Definition of Vegetation Strata:		
6	0	0.0%		Four Vegetation Strata:		
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3		
(Plot size: 5' radius)	0	= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Fiot size: <u>5 Faulus</u>)	80	53 30%	EACU	Sapling/shrub stratum – Consists of woody plants, excluding		
Andrenagen virginigus	20	13 30%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Andropogon virginicus	20	13.3%	FACU	plants, regardless of size, and all other plants less than 3.28		
3. Throllum repens	20	13.3%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
4. Actimea trimetoitum	10	6.7%		ft in height.		
5. Daucus carola						
7				Five Vegetation Strata:		
0				Tree - Woody plants, excluding woody vines, approximately		
0.				diameter at breast height (DBH).		
9				Sapling stratum – Consists of woody plants, excluding		
10				woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH		
11				Shrub stratum – Consists of woody plants, excluding woody		
12	150			vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)	150			Herb stratum – Consists of all herbaceous (non-woody)		
1	0	0.0%		woody species, except woody vines, less than approximately		
2	0	0.0%		3 ft (1 m) in height.		
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of		
4	0	0.0%				
5	0	0.0%		Hydrophytic		
6	0	0.0%				
	$\underline{0} = \text{Total Cover} \qquad Present? \qquad res \bigcirc \text{NO} \bigcirc$					
Remarks: (Include photo numbers here or on a separate she	et.)					

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Upland 07

Sampling Point: W-MRK-007 UPL

Soil			Sampling Point: W-MR	K-007 UPL	
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 ¹ Loc ²	Texture	Remarks	
0-16 10YR 5/2 100			Silty Clay Loam		
			· · · · · · · · · · · · · · · · · · ·		
	······· ······ ······ ·				
	, , ,				
¹ Type: C=Concentration. D=Depletion. RM=Redu	ced Matrix, CS=Covered or Coated	d Sand Grains ² Loc	ation: PL=Pore Lining. M=Ma	atrix	
Hydric Soil Indicators:			Indicators for Problen	natic Hydric Soils ³ :	
Histosol (A1)	Dark Surface (S7)		2 cm Muck (A10) (N	MLRA 147)	
Histic Epipedon (A2)	Polyvalue Below Surface (S	8) (MLRA 147,148)	Coast Prairie Pedox	(A16)	
Black Histic (A3)	Thin Dark Surface (S9) (ML	RA 147, 148)	(MLRA 147,148)	(A10)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Piedmont Floodplai	n Soils (F19)	
Stratified Layers (A5)	Depleted Matrix (F3)		(MLRA 136, 147)		
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)		Very Shallow Dark Surface (TF12)		
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7))	Other (Explain in Re	emarks)	
Thick Dark Surface (A12)	Redox Depressions (F8)				
Sandy Muck Mineral (S1) (LRR N,	Iron-Manganese Masses (F	12) (LRR N,			
MLRA 147, 148)	MLRA 150)	0 126 122)			
Sandy Gleyed Matrix (S4)		(A 150, 122)	³ Indicators of hy	drophytic vegetation and	
Sandy Redox (S5)	Piedmont Floodplain Soils ((F19) (MLRA 148)	wetland hydro	plogy must be present,	
Stripped Matrix (S6)	Red Parent Material (F21)	(MLRA 127, 147)	unless distu	urbed or problematic.	
Restrictive Laver (if observed):					
Type:					
Depth (inches):			Hydric Soil Present?	Yes 🔾 No 🖲	
Pemarke:					
Renarks.					







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Contraction of the second

Wetland 07	
Date:	And the second
November 6, 2018 Description:	
PEM	
Category 1	
Facing North	
	THE AND A CONTRACT OF A CONTRACT
	CARGER AND





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Wetland 07	
Date:	
November 6, 2018	
Description:	
PEM	
Category 1	
Facing South	

Story V




Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 07	
Date:	
November 6, 2018	
Description:	
РЕМ	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Dreiget / Site: Correlitor Coble 129 W	Droject	LIERMINATION			Juntain	
Project/Site: Carroliton-Gable 138 KV	Project		City/County:	Carroli		Sampling Date: 0/-Nov-18
Applicant/Owner: AEP Ohio Transmiss	sion Compan	У	State: OH	Samplin	ng Point:	W-MRK-009 PEM
Investigator(s): M.R.Kline, R.C.Massa			Section, Town	ship, Range: S	25	T Center - 14N R
Landform (hillslope, terrace, etc.):	Hillside		Local relief (con	icave, convex, i	none):	concave Slope: <u>3.0%</u> / <u>1.7</u>
Subregion (LRR or MLRA): LRR N		Lat.:	40.570306	Lor	ng.: -81	.060048 Datum: NAD83
Soil Map Unit Name:BkE; Berks cha	nnery silt l	oam, 25 to 35 percent	slopes	NWI	classifica	tion: N/A
Are climatic/hydrologic conditions on	the site ty	pical for this time of y	ear?Yes 🖲 🛚	No 🔿 (If no	, explain	in Remarks.)
Are Vegetation 🗌 , Soil 🗌	, or Hydrol	ogy 🗌 significant	ly disturbed?	Are "Norma	l Circums	tances" present? Yes $ullet$ No $igodot$
Are Vegetation, Soil	, or Hydrol	ogy 🗌 naturally p	roblematic?	(If needed,	explain a	ny answers in Remarks.)
Summary of Findings - Atl	tach site	map showing s	ampling po	int locatio	ns, tra	nsects, important features, et
Hydrophytic Vegetation Present?	Yes 💿	No				
Hydric Soil Procent?	Yes 🖲		To the G	Sampled Area	\sim	
nyuric Soli Present?			within	a Wetland?	Yes 🔍	No 🔾
Wetland Hydrology Present?	res 🙂					
Hydrology						
Wetland Hydrology Indicators:					Seconda	ry Indicators (minimum of two required)
Primary Indicators (minimum of one	e required;	check all that apply)			Surfa	ace Soil Cracks (B6)
Surface Water (A1)		True Aquatic Plant	s (B14)		Spar	sely Vegetated Concave Surface (B8)
High Water Table (A2)		Hydrogen Sulfide	Odor (C1)		Drair	nage Patterns (B10)
Saturation (A3)		 Oxidized Rhizosph 	eres along Living R	Roots (C3)	Moss	s Trim Lines (B16)
Water Marks (B1)		Presence of Reduc	ed Iron (C4)		Dry S	Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduc	tion in Tilled Soils	(C6)	Cray	fish Burrows (C8)
Drift deposits (B3)		Thin Muck Surface	(C7)		Satu	ration Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in F	Remarks)		Stun	ted or Stressed Plants (D1)
Iron Deposits (B5)					Geor	norphic Position (D2)
Inundation Visible on Aerial Imager	y (B7)				Shall	ow Aquitard (D3)
Water-Stained Leaves (B9)					Micro	otopographic Relief (D4)
Aquatic Fauna (B13)					FAC-	neutral Test (D5)
Field Observations:	\sim					
Surface Water Present? Yes \bigcirc	No 🔍	Depth (inches):				
Water Table Present? Yes •	No \bigcirc	Depth (inches):	5			~ ~ ~ ~
Saturation Present? (includes capillary fringe) Yes •	No \bigcirc	Depth (inches):	5	Wetland Hyd	rology Pro	esent? Yes 🔍 No 🔾
Describe Recorded Data (stream ga	uge, monito	oring well, aerial photo	s, previous inspe	ections), if avai	lable:	
Remarks:						
Source of hydrology is spring seeps	and high w	ater table.				
	5					

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

		Dominant	antor	Sampling Point: W-MRK-009 PEM
		Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:(A)
2	0			Total Number of Dominant
3	0			Species Across All Strata: (B)
4	0			Percent of dominant Species
5	0			That Are OBL, FACW, or FAC:100.0% (A/B)
6	0			
7	0			Prevalence Index worksheet:
8	0	0.0%		I otal % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:)	0 = :	= Total Cover		OBL species 10 x 1 = 10
1	0	0.0%		FACW species $40 \times 2 = 80$
2	0	0.0%		FAC species $95 \times 3 = 285$
2	0	0.0%		FACU species $0 \times 4 = 0$
л	0	0.0%		UPL species $0 \times 5 = 0$
4	0	0.0%		Column Totals: 145 (A) 375 (B)
6	0	0.0%		Provolonce Index = P/A = 2.596
7	0	0.0%		
9	0	0.0%		Hydrophytic Vegetation Indicators:
0	0			Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
10				✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
а. Д	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0			Tree stratum – Consists of woody plants, excluding vines, 3
	0 :	= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5 radius</u>)		1 (2.10)	FAC	Sapling/shrub stratum – Consists of woody plants, excluding
1. <u>Dichanthelium clandestinum</u>	90	▼ 02.1% 17.20/	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Onoclea sensibilis			FACW	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Juncus effusus	10	6.9%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
4. Persicaria sagittata		0.9%		ft in height.
5. Euthamia graminifolia	- <u></u>	2.4%		
6. Eupatorium perfoliatum		0.00/	FACVV	Five Vegetation Strata:
<i>1</i>				Tree - Woody plants, excluding woody vines, approximately
8				diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and
11				Shrub stratum – Consists of woody plants, excluding woody
12	<u> </u>			vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody)
1	0	□		woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		
5	0	0.0%		Hydrophytic
6	0	0.0%		Vegetation Ves No
	0	= Total Cove	r	Present? ICS INV U
Remarks: (Include photo numbers here or on a separate she	et.)			

Sampling Point: W-MRK-009 PEM

Soil			:	Sampling Point: W-N	IRK-009 PEM
Profile Description: (Describe to the depth	needed to document the in	dicator or co	nfirm the	absence of indicators.)	
Depth Matrix	Redox Fea	atures			
(inches) Color (moist) %	Color (moist) %	Tvpe ¹	Loc ²	Texture	Remarks
0-16 2.5Y 5/2 95	10YR 5/6 5	С	M,PL	Silty Clay Loam	2% oxidized rhizospheres
		-			
					- <u>v</u>
	······································				· · ·
				-	
1					
¹ Type: C=Concentration. D=Depletion. RM=Redu	iced Matrix, CS=Covered or Co	oated Sand Gra	ains ² Loc	ation: PL=Pore Lining. M=	=Matrix
Hydric Soil Indicators:				Indicators for Prob	lematic Hydric Soils ³ :
Histosol (A1)	Dark Surface (S7)		1 47 4 40	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surfac	ce (S8) (MLRA	147,148)	Coast Prairie Re	dox (A16)
Black Histic (A3)	Thin Dark Surface (S9)) (MLRA 147, 1	48)	(MLRA 147,148)	
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)		Piedmont Flood	plain Soils (F19)
	Depleted Matrix (F3)			(MLRA 136, 147)
	Redox Dark Surface (F	(F7)		Very Shallow Da	ark Surface (TF12)
Depleted Below Dark Surface (A11)		(F7)		Other (Explain i	n Remarks)
) ac (F12) (I DD	N		
L Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)	MLRA 136)		v ,		
Sandy Gleved Matrix (S4)	Umbric Surface (F13)	(MLRA 136, 12	2)	_	
Sandy Redox (S5)	Piedmont Floodplain S	oils (F19) (MLI	RA 148)	³ Indicators o	f hydrophytic vegetation and
Stripped Matrix (S6)	Red Parent Material (F	21) (MLRA 12	7, 147)		disturbed or problematic.
Restrictive Layer (if observed):					
Туре:				Hydric Soil Present?	
Depth (inches):				Hydric Soli Present:	tes S No C
Remarks:					

Upland 08, 09

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV	Project		City/County: Car	rroll		Sampl	ing Date:	07-Nov-18
pplicant/Owner: AEP Ohio Transmis	sion Compa	ny	State: OH	Samplir	ng Point:	W-M	RK-008-	009 UPL
nvestigator(s): M.R.Kline, R.C.Massa	I		Section, Townshi	ip, Range: S	25	T Center	- 14N	R
andform (hillslope, terrace, etc.):	Hillside		Local relief (concav	ve, convex, i	none): cor	nvex	Slope:	3.0% / 1
ubregion (LRR or MLRA): LRR N		Lat.:	40.570387	Lor	ng.: -81.060	0031	C	Datum: NAD83
oil Map Unit Name: BkE; Berks cha	annery silt	loam, 25 to 35 percent	t slopes	NWI	classification	n: N/A		
re climatic/hydrologic conditions or	the site ty	pical for this time of ye	ear? Yes 🖲 No	O (If no	, explain in R	emarks.)		
re Vegetation 🗌 🛛 , Soil 🗌	, or Hydro	logy 🗌 significant	ly disturbed?	Are "Norma	l Circumstand	ces" present	? Yes	• No ()
re Vegetation 🗌 , Soil 🗌	, or Hydro	logy 🗌 naturally p	problematic?	(If needed,	explain any a	answers in R	emarks.)	
Summony of Findings At	hach sit	a man chowing c		tlaatia	na trana	osto imm	ortont	footuros
Summary of Findings - At			sampling poin		ns, transe	ects, imp	ortant	ieatures, e
Hydrophytic Vegetation Present?	Yes ∪							
Hydric Soil Present?			Is the Sam within a W	npled Area Vetland?	Yes \bigcirc No	$\textcircled{\bullet}$		
Wetland Hydrology Present?	Yes \bigcirc	No 🔍	Within a Vi	rectanta.				
Upland data point for W-MRK-008 a	nd W-MRK							
Upland data point for W-MRK-008 a	nd W-MRK							
Upland data point for W-MRK-008 a	nd W-MRK				_Secondary Ir	ndicators (mini	imum of tv	wo required)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on	e required;	check all that apply)			_Secondary Ir	ndicators (mini Soil Cracks (B6	imum of tv	wo required)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2)	e required;	check all that apply)	ts (B14)		Secondary Ir	ndicators (mini Soil Cracks (B6 Vegetated Co	imum of tv 5) ncave Surf	wo required)face (B8)
Upland data point for W-MRK-008 a	nd W-MRK	Check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph)	ts (B14) Odor (C1) eres along Living Root		Secondary Ir Surface S Sparsely Drainage Moss Trii	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) m Lines (B16)	imum of tv 5) ncave Surf 0)	wo required) face (B8)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizospho Presence of Reduct 	ts (B14) Odor (C1) eres along Living Root	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B10 m Lines (B16) son Water Tab	imum of tv 5) ncave Sur 0) le (C2)	wo required) face (B8)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduct Recent Iron Reduct 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B10 m Lines (B16) son Water Tab Burrows (C8)	i <u>mum of tv</u> 5) ncave Sur 0) le (C2)	wo required) face (B8)
Upland data point for W-MRK-008 a	e required;		ts (B14) Odor (C1) eres along Living Root ction in Tilled Soils (C6 e (C7)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) m Lines (B16) son Water Tab Burrows (C8) on Visible on A	imum of tv 5) ncave Surf 0) le (C2) erial Imag	wo required) face (B8) ery (C9)
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trii Dry Seas Crayfish Saturatio	ndicators (mini Soil Cracks (Bé Vegetated Co Patterns (B16) m Lines (B16) Burrows (C8) on Visible on A or Stressed Pla	imum of tv 5) ncave Surf 0) le (C2) .erial Imag ants (D1)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Universities (B5)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted o Geomorp	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) con Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I	imum of tv 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9)	e required;	check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe) Presence of Reduce Recent Iron Reduce Thin Muck Surface Other (Explain in F	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 2 (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) of (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Iydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13)	e required; y (B7)	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trii Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (Bé Vegetated Co Patterns (B16) m Lines (B16) on Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13)	e required; y (B7)	check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe) Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F	ts (B14) Odor (C1) ieres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop FAC-neut	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) m Lines (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	e required; y (B7)	<u> check all that apply</u> True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphu Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches):	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) on Visible on A or Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo_required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes	nd W-MRK <u>e required;</u> y (B7) No No	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (Be Vegetated Co Patterns (B16) m Lines (B16) con Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes Saturation Present? Yes	e required; y (B7) No No No No	Check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) eeres along Living Root ction in Tilled Soils (C6 2 (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trir Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow Hicrotop FAC-neut	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) werial Imag ants (D1) D2) 2f (D4) No	wo_required) face (B8) ery (C9)

No source of hydrology.

Upland 08, 09 VEGETATION (Five/Four Strata)- Use scientific names of plants.

VEGETATION (TWE/Tour Strate)- Ose scien	the na	Do	ominant	ants.	Sampling Point: W-MRK-008-009 UPL
Tree Stratum (Plot size:)	Absolute % Cover	–Sp Re Co	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:
	0	\square	0.0%		Number of Dominant Species That are OBL_EACW_or_EAC: 1 (A)
2	0		0.0%		
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.	0		0.0%		
5	0		0.0%		Percent of dominant Species
6	0		0.0%		That Are OBL, FACW, or FAC:
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Contine Contine (Church Charterne (Plot size)	0	= To	otal Cove	r	OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Fiot size)	0		0.0%		FACW species $0 \times 2 = 0$
1			0.0%		FAC species50 x 3 =150
2			0.0%		FACU species $65 \times 4 = 260$
3			0.0%		UPL species $0 \times 5 = 0$
- 4			0.0%		Column Totals: 115 (A) 410 (B)
6			0.0%		Provolonce Index = P/A = 2 FCF
7	0		0.0%		Prevalence index – b/A – <u>5.505</u>
8	0		0.0%		Hydrophytic Vegetation Indicators:
9	0		0.0%		Rapid Test for Hydrophytic Vegetation
10	0		0.0%		Dominance Test is > 50%
	0	= To	otal Cove	r	□ Prevalence Index is $\leq 3.0^{-1}$
Shrub Stratum (Plot size: <u>15' radius</u>)	10		100.00%	EACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Rubus allegrieniensis	0		0.0%	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2			0.0%		¹ Indicators of hydric coil and watland hydrology must
3 A			0.0%		be present, unless disturbed or problematic.
4			0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
(Diet size: 51 melius)	10	= To	otal Cove	r	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5 radius</u>)			47 60/	EAC	Sapling/shrub stratum – Consists of woody plants, excluding
1. Dichanthelium clandestinum	50		47.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Dactylis giomerata	5		4 8%	FACU	plants, regardless of size, and all other plants less than 3.28
			0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
5	0		0.0%		ft in height.
6	0	\square	0.0%		
7	0		0.0%		Five Vegetation Strata:
8	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		Sapling stratum – Consists of woody plants, excluding
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size:	105	= Тс	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
	0		0.0%		plants, including herbaceous vines, regardless of size, and
2			0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3			0.0%		Woody vines - Consists of all woody vines regardless of
۵ ۵	0		0.0%		height.
5	0		0.0%		
6			0.0%		Hydrophytic Venetation
0	0	 = T(otal Cove	r	Present? Yes No 💿

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Desc	ription: (D	escribe to	the depth	needed to document	the indic	ator or co	onfirm the	absence of indicators.)	
Depth		Matrix		Rec	lox Featu	res			
(inches)	Color	(moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-6	2.5Y	5/3	100					Silt Loam	
6-16	2.5Y	5/4	100					Silty Clay Loam	
-									
	-								
¹ Type: C=Con	centration.	D=Depletic	on. RM=Red	uced Matrix, CS=Covere	ed or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M=M	atrix
Hydric Soil	Indicators			,					
	(A1)	•		Dark Surface (9	57)			Indicators for Proble	matic Hydric Soils":
	nedon (A2)			Polyvalue Belov	v Surface ((S8) (MI RA	147,148)	2 cm Muck (A10) (MLRA 147)
Black His	tic (A3)			Thin Dark Surfa	ice (S9) (M	1LRA 147, 1	148)	Coast Prairie Redox	x (A16)
Hvdroger	n Sulfide (A	4)		I oamy Gleved I	Matrix (F2)	· _ · _ · _ · · , ·		(MLRA 147,148)	
Stratified	Layers (A5)		Depleted Matrix	(F3)			Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muc	ck (A10) (LF	, RR N)		Redox Dark Su	face (F6)				Surface (TE12)
	Below Darl	 Surface (A 	(11)	Depleted Dark	Surface (F	7)			
Thick Day	rk Surface ((Sanace () A12)	(11)	Redox Depressi	ons (F8)	,			(emarks)
Sandy Mu	ick Mineral	(S1) (I RR I	N	Iron-Manganes	e Masses (F12) (LRR	Ν,		
MLRA 14	7, 148)		•,	MLRA 136)					
Sandy Gl	eyed Matrix	: (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)	3 - 11 - 11	
Sandy Re	dox (S5)			Piedmont Floor	Iplain Soils	s (F19) (ML	RA 148)	Indicators of h wetland hvdr	ydrophytic vegetation and ology must be present.
Stripped	Matrix (S6)			Red Parent Mat	erial (F21)) (MLRA 12	7, 147)	unless dist	curbed or problematic.
Do strictivo I		a convod).							
Tunoi	ayer (if of	servea):							
Donth (inc	aboo).							Hydric Soil Present?	Yes 🔿 No 🖲
	nes):							•	
Remarks:									







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 08	
Date:	
November 7, 2018	and the second
Description:	
PEM	
Category 1	
	The second s
Facing South	
C	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 08	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 k	Project		City/County:	Carroll		Sa	mpling Date	e: 07-Nov	-18
pplicant/Owner: AEP Ohio Transmi	sion Compar	ıγ	State: OH	Samplir	ng Point:		W-MRK-0	08 PEM	
westigator(s): M.R.Kline, R.C.Mass	3		Section, Town	ship, Range: S	25	T Cen	ter - 14N		R 5V
andform (hillslope, terrace, etc.):	Floodplair	1	Local relief (con	cave, convex, i	none):	concave	Slope:	2.0%	/ 1.1
ubregion (LRR or MLRA): LRR N		Lat.:	40.570107	Lor	ng.: -81.	.059687		Datum:	NAD83
bil Map Unit Name: BkE; Berks ch	annery silt	loam, 25 to 35 percent	t slopes	NWI	classifica	tion: N/A			
e climatic/hydrologic conditions o	n the site ty	pical for this time of y	ear? Yes 🖲 M	lo 🔾 🛛 (If no	, explain	in Remarks.)		
re Vegetation 🗌 , Soil 🗌	, or Hydro	logy 🗌 significant	tly disturbed?	Are "Norma	l Circums	tances" pres	sent? Ye	s 🔍 N	o O
re Vegetation 🗌 , Soil 🗌	, or Hydro	logy 🗌 naturally p	problematic?	(If needed,	explain a	ny answers	in Remarks	.)	
Summany of Findings - At	tach cit	man chowing	compling po	int locatio	na tra	ncocto i	mnortan	t footu	roc oto
			samping po		iis, ua	iisects, i	inportan	i icatu	Tes, etc
lydrophytic Vegetation Present?	Yes								
Hydric Soil Present?	Yes		Is the S within a	ampled Area Wetland?	Yes 🖲	No \bigcirc			
Wetland Hydrology Present?	res 💌								
This PEM wetland is located on the seepsthat follow minor depressions	floodplain o down the h	nillside. Wetland bound	dary follows toe-	of-slope, hydro	ophytis ve	getation, ar	d hillside de	epressions	
This PEM wetland is located on the seepsthat follow minor depressions	floodplain o down the h	nillside. Wetland bound	dary follows toe-	of-slope, hydro	ophytis ve	getation, an	d hillside de	epressions	
This PEM wetland is located on the seepsthat follow minor depressions Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of or	floodplain of down the h	check all that apply)	dary follows toe-	of-slope, hydro	Seconda	ry Indicators	d hillside de	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h	check all that apply)	ts (B14)	of-slope, hydro	Seconda	ry Indicators ace Soil Crack	d hillside de (minimum of s (B6) d Concave Si	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions Iydrology Wetland Hydrology Indicators: Primary Indicators (minimum of or Surface Water (A1) I High Water Table (A2)	floodplain of down the h		ts (B14) Odor (C1)	of-slope, hydro	Seconda Surf. Spar Drai	ry Indicators ace Soil Crack sely Vegetate nage Patterns	d hillside de (minimum of s (B6) d Concave Su (B10)	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h		ts (B14) Odor (C1) veres along Living R	oots (C3)	Seconda Spar Spar Drai Mose	ry Indicators ace Soil Crack rsely Vegetate nage Patterns s Trim Lines ((minimum of s (B6) d Concave Su (B10) B16)	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions Iydrology Wetland Hydrology Indicators: Primary Indicators (minimum of or ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1)	floodplain of down the h		ts (B14) Odor (C1) reres along Living R ced Iron (C4)	oots (C3)	Seconda Spar Spar Drai Mos: Dry	ry Indicators ace Soil Crack rsely Vegetate nage Patterns s Trim Lines (Season Water	(<u>minimum of</u> s (B6) d Concave Su (B10) B16) Table (C2)	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h		ts (B14) Odor (C1) Ieres along Living R ced Iron (C4) ction in Tilled Soils	oots (C3)	Seconda Surf. Spar Drai Drai Dry Cray	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows	d hillside de (minimum of s (B6) d Concave Su (B10) B16) • Table (C2) (C8)	two require	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h		ts (B14) Odor (C1) neres along Living R ced Iron (C4) ction in Tilled Soils e (C7)	oots (C3)	Seconda Surfi Spar Drai Moss Dry Cray Satu	ry Indicators ace Soil Crack rsely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible	d hillside de (minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima	two require urface (B8)	ed)
This PEM wetland is located on the exceps that follow minor depressions Iydrology Wetland Hydrology Indicators: Primary Indicators (minimum of or ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iran Daposits (BE)	floodplain of down the h		ts (B14) Odor (C1) eres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3)	Seconda Surf Spar Drai Mose Dry Cray Satu	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse	(minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain o down the h ne required;		ts (B14) Odor (C1) Heres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3)	Seconda Surfa Spar Drai Drai Dry Cray Satu Stun Stun	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse morphic Positi	(minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h <u>ne required;</u> y (B7)		ts (B14) Odor (C1) Peres along Living R ced Iron (C4) ction in Tilled Soils c (C7) Remarks)	oots (C3)	Seconda Surf: Spar Drai Drai Dry Cray Satu Stun Stun Stun Stun Mos: Shal	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse morphic Positi low Aquitard (d hillside de (minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h e required; y (B7)		ts (B14) Odor (C1) neres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3)	Seconda Surfi Spar Spar Drai Mose Cray Cray Satu Stun Stun Stun F Geo Shal Micr FAC	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows iration Visible ited or Stresse morphic Positi low Aquitard otopographic neutral Test ((minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4) (D5)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain o down the h e required; y (B7)		ts (B14) Odor (C1) reres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3)	Seconda Surfa Spar Drai Drai Dry Cray Satu Stun Stun Stun Stun Stun FX Geou Shal Micri FAC	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse morphic Positi low Aquitard otopographic -neutral Test ((minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4) (D5)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h ne required; y (B7)	check all that apply) True Aquatic Plant Hydrogen Sulfide (✓ Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F	ts (B14) Odor (C1) eres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3)	Seconda Surf. Spar Spar Drai Gray Cray Cray Satu Stun Stan FAC	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse morphic Positi low Aquitard otopographic -neutral Test (d hillside de (minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4) (D5)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions	floodplain of down the h ne required; γ (B7)	Check all that apply True Aquatic Plant Hydrogen Sulfide 0 Oxidized Rhizosph Presence of Reduct Recent Iron Reduct Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches):	ts (B14) Odor (C1) neres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3) (C6)	Seconda Surf Spar Spar Drai Mose Cray Satu Stun Stun Stun FAC	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows fish Burrows tration Visible ted or Stresse morphic Positi low Aquitard otopographic neutral Test ((minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4) (D5)	two require urface (B8) agery (C9)	ed)
This PEM wetland is located on the seepsthat follow minor depressions Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of or ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) ○ Water Marks (B1) ○ Sediment Deposits (B2) ○ Drift deposits (B3) ○ Algal Mat or Crust (B4) ○ Iron Deposits (B5) ○ Inundation Visible on Aerial Image ○ Water-Stained Leaves (B9) ○ Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes ④ Saturation Present? Yes ●	floodplain of down the h ne required; y (B7) No O No O No O	check all that apply) True Aquatic Plant Hydrogen Sulfide (✓ Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) teres along Living R ced Iron (C4) ction in Tilled Soils e (C7) Remarks)	oots (C3) (C6) Wetland Hyd	Seconda Surf Spar Spar Drai Drai Dry Cray Satu Statu Statu Statu Statu FAC	ry Indicators ace Soil Crack sely Vegetate nage Patterns s Trim Lines (Season Water fish Burrows ration Visible ited or Stresse morphic Positi low Aquitard otopographic neutral Test (d hillside de (minimum of s (B6) d Concave Su (B10) B16) Table (C2) (C8) on Aerial Ima ed Plants (D1) on (D2) (D3) Relief (D4) (D5) Yes () N	two require urface (B8) agery (C9))	ed)

Source of hydrology is spring seeps and seasonal flooding.

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

		Do	minant		Sampling Point: W-MRK-008 PEM
	Absolute	—Sp Re	ecies? - I.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	<u>Co</u>	ver	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:(A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:3(B)
4	0		0.0%		Deveent of deminant Creation
5	0		0.0%		That Are OBL. FACW, or FAC:100.0% (A/B)
6	0		0.0%		
7	0		0.0%		Prevalence Index worksheet:
8	0	\square	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:)	0 :	= То	tal Cove	r	OBL species $35 \times 1 = 35$
1	0	\square	0.0%		FACW species <u>100</u> x 2 = <u>200</u>
2			0.0%		FAC species $50 \times 3 = 150$
2			0.0%		FACU species $0 \times 4 = 0$
3			0.0%		UPL species $0 \times 5 = 0$
4			0.0%		Column Totals: 185 (A) 385 (B)
5			0.0%		
6			0.0%		Prevalence Index = B/A = 2.081
<i>.</i>			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
10	0		0.0%		✓ Prevalence Index is ≤3.0 1
Shrub Stratum (Plot size: <u>15' radius</u>)	:	= To	tal Cove	r	Morphological Adaptations ¹ (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: 5' radius)		= To	tal Cove	r	regardless of height.
1 Dichanthelium clandestinum	50	\checkmark	27.0%	FAC	Sapling/shrub stratum – Consists of woody plants, excluding
2 Juncus effusus	40		21.6%	FACW	Herb stratum – Consists of all berbaceous (non-woody)
3 Scirpus atrovirens	30		16.2%	OBL	plants, regardless of size, and all other plants less than 3.28
Δ Eupatorium perfoliatum	20		10.8%	FACW	ft tall. Woody vines – Consists of all woody vines greater than 3.28
5 Cyperus esculentus	20		10.8%	FACW	ft in height.
6 Epilobium coloratum	15		8.1%	FACW	Five Verstetien Chates
7 Onoclea sensibilis	5		2.7%	FACW	Five vegetation Strata:
8 Mimulus ringens	5		2.7%	OBL	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
9 10	0	\square	0.0%		Sapling stratum – Consists of woody plants, excluding
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
	185	 = To	tal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)			0.00/		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1			0.0%		woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height
4	0		0.0%		
5	0		0.0%		Hydrophytic
6	0	$\square_{_}$	0.0%		Vegetation Presenta Yes No
	0	= To	otal Cove	r	
Beneral a (Territoria al este anna beneral este anna este al este					

Remarks: (Include photo numbers here or on a separate sheet.)

Wetland	09
Soil	

Sampling Point: W-MRK-008 PEM

Depth Matrix Redox Features 0-6 5Y 4/1 100
(inches) Color (moist) % Color (moist) % Type 1 Loc2 Texture Remarks 0-6 5Y 4/1 100
0-6 5Y 4/1 100 Silty Clay Loam 6-16 5Y 5/1 80 10YR 5/6 20 C M,PL Silty Clay Loam 10% oxidized rhizospheres
6-16 5Y 5/1 80 10YR 5/6 20 C M,PL Silty Clay Loam 10% oxidized rhizospheres
1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ :
Indicators for Problematic Hydric Soils ⁵ :
L Histosol (A1)
Histosol (A1) Daik Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147 148)
Black Histic (A3)
Hydrogen Sulfide (A4)
□ Image: Stratified Layers (A5) Image: Stratified Layers (A5) Image: Stratified Layers (A5)
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Muck Mineral (S1) (LPP N III Iron-Manganese Masses (F12) (LRR N,
MLRA 147, 148) MLRA 136)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
Type:
Depth (inches):
Remarks:

Upland 08, 09

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV	Project		City/County: Car	rroll		Sampl	ing Date:	07-Nov-18
pplicant/Owner: AEP Ohio Transmis	sion Compa	ny	State: OH	Samplir	ng Point:	W-M	RK-008-	009 UPL
nvestigator(s): M.R.Kline, R.C.Massa	I		Section, Townshi	ip, Range: S	25	T Center	- 14N	R
andform (hillslope, terrace, etc.):	Hillside		Local relief (concav	ve, convex, i	none): cor	nvex	Slope:	3.0% / 1
ubregion (LRR or MLRA): LRR N		Lat.:	40.570387	Lor	ng.: -81.060	0031	C	Datum: NAD83
oil Map Unit Name: BkE; Berks cha	annery silt	loam, 25 to 35 percent	t slopes	NWI	classification	n: N/A		
re climatic/hydrologic conditions or	the site ty	pical for this time of ye	ear? Yes 🖲 No	O (If no	, explain in R	emarks.)		
re Vegetation 🗌 🛛 , Soil 🗌	, or Hydro	logy 🗌 significant	ly disturbed?	Are "Norma	l Circumstand	ces" present	? Yes	• No ()
re Vegetation 🗌 , Soil 🗌	, or Hydro	logy 🗌 naturally p	problematic?	(If needed,	explain any a	answers in R	emarks.)	
Summony of Findings At	hach sit	a man chowing c		tlaatia	na trana	osto imm	ortont	footuros
Summary of Findings - At			sampling poin		ns, transe	ects, imp	ortant	ieatures, e
Hydrophytic Vegetation Present?	Yes ∪							
Hydric Soil Present?			Is the Sam within a W	npled Area Vetland?	Yes \bigcirc No	$\textcircled{\bullet}$		
Wetland Hydrology Present?	Yes \bigcirc	No 🔍	Within a Vi	rectanta.				
Upland data point for W-MRK-008 a	nd W-MRK							
Upland data point for W-MRK-008 a	nd W-MRK							
Upland data point for W-MRK-008 a	nd W-MRK				_Secondary Ir	ndicators (mini	imum of tv	wo required)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on	e required;	check all that apply)			_Secondary Ir	ndicators (mini Soil Cracks (B6	imum of tv	wo required)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2)	e required;	check all that apply)	ts (B14)		Secondary Ir	ndicators (mini Soil Cracks (B6 Vegetated Co	imum of tv 5) ncave Surf	wo required)face (B8)
Upland data point for W-MRK-008 a	nd W-MRK	Check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosph)	ts (B14) Odor (C1) eres along Living Root		Secondary Ir Surface S Sparsely Drainage Moss Trii	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) m Lines (B16)	imum of tv 5) ncave Surf 0)	wo required) face (B8)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe Presence of Reduct 	ts (B14) Odor (C1) eres along Living Root	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B10 m Lines (B16) son Water Tab	imum of tv 5) ncave Sur 0) le (C2)	wo required) face (B8)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduct Recent Iron Reduct 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B10 m Lines (B16) son Water Tab Burrows (C8)	i <u>mum of tv</u> 5) ncave Sur 0) le (C2)	wo required) face (B8)
Upland data point for W-MRK-008 a	e required;		ts (B14) Odor (C1) eres along Living Root ction in Tilled Soils (C6 e (C7)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) m Lines (B16) son Water Tab Burrows (C8) on Visible on A	imum of tv 5) ncave Surf 0) le (C2) erial Imag	wo required) face (B8) ery (C9)
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trii Dry Seas Crayfish Saturatio	ndicators (mini Soil Cracks (Bé Vegetated Co Patterns (B16) m Lines (B16) Burrows (C8) on Visible on A or Stressed Pla	imum of tv 5) ncave Surf 0) le (C2) .erial Imag ants (D1)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Universities of Crust (B4)	e required;	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted o Geomorp	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) con Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I	imum of tv 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9)	e required;	check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe) Presence of Reduce Recent Iron Reduce Thin Muck Surface Other (Explain in F	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 2 (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) of (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Iydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13)	e required; y (B7)	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trii Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (Bé Vegetated Co Patterns (B16) m Lines (B16) on Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13)	e required; y (B7)	check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe) Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F	ts (B14) Odor (C1) ieres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop FAC-neut	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) m Lines (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	e required; y (B7)	<u> check all that apply</u> True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphu Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches):	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (B6 Vegetated Co Patterns (B16) on Visible on A or Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo_required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes	nd W-MRK <u>e required;</u> y (B7) No No	 check all that apply) True Aquatic Plant Hydrogen Sulfide C Oxidized Rhizosphe Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F 	ts (B14) Odor (C1) eres along Living Root ced Iron (C4) ction in Tilled Soils (C6 e (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trin Dry Seas Crayfish Saturatio Stunted of Geomorp Shallow / Microtop	ndicators (mini Soil Cracks (Be Vegetated Co Patterns (B16) m Lines (B16) con Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo required) face (B8) ery (C9)
Upland data point for W-MRK-008 a Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of on Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imager Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present? Yes Saturation Present? Yes	e required; y (B7) No No No No	Check all that apply) True Aquatic Plant Hydrogen Sulfide (Oxidized Rhizosphe) Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F Depth (inches): Depth (inches): Depth (inches):	ts (B14) Odor (C1) eeres along Living Root ction in Tilled Soils (C6 2 (C7) Remarks)	ts (C3)	Secondary Ir Surface S Sparsely Drainage Moss Trir Dry Seas Crayfish Saturatio Stunted o Geomorp Shallow Hicrotop FAC-neut	ndicators (mini Soil Cracks (Bé Vegetated Co e Patterns (B16) son Water Tab Burrows (C8) on Visible on A or Stressed Pla ohic Position (I Aquitard (D3) ographic Relie tral Test (D5)	imum of tw 5) ncave Surf 0) le (C2) erial Imag ants (D1) D2) ef (D4)	wo_required) face (B8) ery (C9)

No source of hydrology.

Upland 08, 09 VEGETATION (Five/Four Strata)- Use scientific names of plants.

VEGETATION (TWE/Tour Strate)- Ose scien	the na	Do	ominant	ants.	Sampling Point: W-MRK-008-009 UPL
Tree Stratum (Plot size:)	Absolute % Cover	–Sp Re Co	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:
	0	\square	0.0%		Number of Dominant Species That are OBL_EACW_or_EAC: 1 (A)
2	0		0.0%		
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.	0		0.0%		
5	0		0.0%		Percent of dominant Species
6	0		0.0%		That Are OBL, FACW, or FAC:
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Contine Contine (Church Charterne (Plot size)	0	= То	otal Cove	r	OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Fiot size)	0		0.0%		FACW species $0 \times 2 = 0$
1			0.0%		FAC species50 x 3 =150
2			0.0%		FACU species $65 \times 4 = 260$
3			0.0%		UPL species $0 \times 5 = 0$
- 4			0.0%		Column Totals: 115 (A) 410 (B)
6			0.0%		Provolonce Index = P/A = 2 FCF
7	0		0.0%		Prevalence index – b/A – <u>5.505</u>
8	0		0.0%		Hydrophytic Vegetation Indicators:
9	0		0.0%		Rapid Test for Hydrophytic Vegetation
10	0		0.0%		Dominance Test is > 50%
	0	= To	otal Cove	r	□ Prevalence Index is $\leq 3.0^{-1}$
Shrub Stratum (Plot size: <u>15' radius</u>)	10		100.00%	EACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. Rubus allegrieniensis	0		0.0%	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
2			0.0%		¹ Indicators of hydric coil and watland hydrology must
3 A			0.0%		be present, unless disturbed or problematic.
4			0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
(Diet size: 51 melius)	10	= To	otal Cove	r	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5 radius</u>)			47 60/	EAC	Sapling/shrub stratum – Consists of woody plants, excluding
1. Dichanthelium clandestinum	50		47.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Dactylis giomerata	5		4 8%	FACU	plants, regardless of size, and all other plants less than 3.28
			0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
5	0		0.0%		ft in height.
6	0	\square	0.0%		
7	0		0.0%		Five Vegetation Strata:
8	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		Sapling stratum – Consists of woody plants, excluding
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size:	105	= Тс	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
	0		0.0%		plants, including herbaceous vines, regardless of size, and
2			0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3	0		0.0%		Woody vines - Consists of all woody vines regardless of
۵ ۵	0		0.0%		height.
5	0		0.0%		
6			0.0%		Hydrophytic Venetation
0	0	 = T(otal Cove	r	Present? Yes No 💿

Remarks: (Include photo numbers here or on a separate sheet.)

Profile Desc	ription: (D	escribe to	the depth	needed to document	the indic	ator or co	onfirm the	absence of indicators.)	
Depth		Matrix		Rec	lox Featu	res			
(inches)	Color	(moist)	%	Color (moist)	%		Loc ²	Texture	Remarks
0-6	2.5Y	5/3	100					Silt Loam	
6-16	2.5Y	5/4	100					Silty Clay Loam	
-									
	-								
¹ Type: C=Con	centration.	D=Depletic	on. RM=Red	uced Matrix, CS=Covere	ed or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M=M	atrix
Hydric Soil	Indicators			,					
	(A1)	•		Dark Surface (9	57)			Indicators for Proble	matic Hydric Soils":
Histic Epi	nedon (A2)			Polyvalue Belov	v Surface ((S8) (MI RA	147,148)	2 cm Muck (A10) (MLRA 147)
Black His	tic (A3)			Thin Dark Surfa	ice (S9) (M	1LRA 147, 1	148)	Coast Prairie Redox	x (A16)
Hvdroger	n Sulfide (A	4)		I oamy Gleved I	Matrix (F2)	· _ · _ · _ · · , ·		(MLRA 147,148)	
Stratified	Layers (A5)		Depleted Matrix	(F3)			Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
2 cm Muc	ck (A10) (LF	, RR N)		Redox Dark Su	face (F6)				Surface (TE12)
	Below Darl	 Surface (A 	(11)	Depleted Dark	Surface (F	7)			
Thick Day	rk Surface ((Sanace () A12)	(11)	Redox Depressi	ons (F8)	,			(emarks)
Sandy Mi	ick Mineral	(S1) (I RR I	N	Iron-Manganes	e Masses (F12) (LRR	Ν,		
MLRA 14	7, 148)		•,	MLRA 136)					
Sandy Gl	eyed Matrix	: (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)	3 - 11 - 11	
Sandy Re	dox (S5)			Piedmont Floor	Iplain Soils	s (F19) (ML	RA 148)	Indicators of h wetland hvdr	ydrophytic vegetation and ology must be present.
Stripped	Matrix (S6)			Red Parent Mat	erial (F21)) (MLRA 12	7, 147)	unless dist	curbed or problematic.
Destrictive		a convod).							
Tunoi	ayer (if of	servea):							
Donth (inc	aboo).							Hydric Soil Present?	Yes 🔿 No 🖲
	nes):							•	
Remarks:									







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 09	
Date:	
November 7, 2018	
Description:	
PEM	
Modified Category 2	
Facing South	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

 Wetland 09

 Date:

 November 7, 2018

 Description:

 PEM

 Modified Category 2

 Soil Pit

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 07 Nov 10
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-010 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): Slope: / °
Subregion (LRR or MLRA): LRR N L	.at.: 40.569419 Long.: -81.058619 Datum: NAD83
Soil Map Unit Name: _BkE; Berks channery silt loam, 25 to 35 per	cent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 signific	cantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodot$
Are Vegetation , Soil , or Hydrology natura	ally problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site man showin	a campling point locations transacts important features atc
	ig sampling point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes Vo	
Hydric Soil Present? Yes Ves No	Is the Sampled Area Yes No O
Wetland Hydrology Present? Yes $ullet$ No $igodoldsymbol{ imes}$	within a wetland?
Hydrology Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Surface Water (A1)	Plants (B14) Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	fide Odor (C1) Drainage Patterns (B10)
Saturation (A3)	ospheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	Leduced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	Leduction in Tilled Soils (C6)
Drift deposits (B3)	rface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain	n in Remarks)
Iron Deposits (B5)	Geomorphic Position (D2)
L Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
L Aquatic Fauna (B13)	FAC-neutral Test (D5)
Field Observations:	
	es):
Water Table Present? Yes NO Depth (inch-	es): <u>8</u> Wetland Hydrology Present? Yes • No O
(includes capillary fringe) Yes No Depth (includes capillary fringe)	es):8
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
Demostra	
Reilidi KS:	
Source or hydrology is spring seeps.	

Wetland 10 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		De	ominant		Sampling Point: W-MRK-010 PEM
	Absolute	Re	el.Strat.	Indicator	Dominance Test worksheet:
(Plot size:)	% Cover		over	Status	Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:(A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata:3(B)
4	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC:66.7% (A/B)
6	0		0.0%		
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:)	0	= 10	otal Cove	r	OBL species $0 \times 1 = 0$
1	0		0.0%		FACW species $50 \times 2 = 100$
2	0		0.0%	-	FAC species 90 x 3 =270
3	0		0.0%	-	FACU species 10 x 4 = 40
Δ	0		0.0%	-	UPL species $0 \times 5 = 0$
5	0		0.0%	-	Column Totals: <u>150</u> (A) <u>410</u> (B)
6	0		0.0%	-	Prevalence Index = $B/A = 2.733$
7	0		0.0%		
8	0		0.0%		Hydrophytic Vegetation Indicators:
0	0		0.0%		Rapid Test for Hydrophytic Vegetation
10	0	\square	0.0%		✓ Dominance Test is > 50%
	0		otal Cove	r	✓ Prevalence Index is ≤3.0 [⊥]
Shrub Stratum (Plot size: <u>15' radius</u>)			100.00/	FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
1. <u>Rubus allegheniensis</u>			100.0%	FACU	Problematic Hydrophytic Vegetation 1 (Explain)
2			0.0%		
3			0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	0		0.0%		Definition of Vegetation Strates
5	0		0.0%		Definition of Vegetation Strata.
6	0		0.0%		FOUL VEGELATION STIALA.
7	0		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)		= то	otal Cove	r	regardless of height.
1. Dichanthelium clandestinum	90	\checkmark	62.1%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Poa palustris	30	✓	20.7%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3. Solidago gigantea	10		6.9%	FACW	plants, regardless of size, and all other plants less than 3.28 ft tall.
4. Onoclea sensibilis	5		3.4%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft in height
5. Eupatorium perfoliatum	5		3.4%	FACW	
6. <u>Glechoma hederacea</u>	5		3.4%	FACU	Five Vegetation Strata:
7	0		0.0%		Tree - Woody plants, excluding woody vines, approximately
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
10	0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and
11	0		0.0%		less than 3 in. (7.6 cm) DBH.
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height
Woody Vine Stratum (Plot size:)	145	= То	otal Cove	r	Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
2	0		0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
۵ ۵	0		0.0%		height.
5	0		0.0%		
0	- <u></u>		0.0%		Hydrophytic
U	0		otal Cove		Present? Yes No
Demoder (Techological		- 1		-	
Remarks: (Include photo numbers here or on a separate she	ετ.)				

Wetland	10
Soil	

Sampling Point: W-MRK-010 PEM

Profile Desc	ription: (Describe to	the depth	needed to documen	t the indic	ator or co	onfirm the a	absence of indicators.)	
Depth	Matrix		Re	dox Featu	res			
(inches)	Color (moist)		Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-8	2.5Y 5/2	95	10YR 5/6	5	С	M,PL	Silty Clay Loam	2% oxidized rhizospheres
8-14	2.5Y 5/3	100						-
						L	-	
				-			-	
¹ Type: C=Cor	ncentration. D=Depletic	on. RM=Red	uced Matrix, CS=Cover	red or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=	Matrix
Hydric Soil	Indicators:						Indicators for Duck	lomatic Hydric Saila ³ .
Histosol	(A1)		Dark Surface (57)			Indicators for Prob	lematic Hydric Solis" :
Histic Ep	ipedon (A2)		Polyvalue Belo	w Surface (58) (MI RA	147,148)	2 cm Muck (A10) (MLRA 147)
Black His	tic (A3)			ace (S9) (N	11 RA 147 1	148)	Coast Prairie Rec	lox (A16)
	n Sulfide (A4)			Matrix (E2)		. 10)	(MLRA 147,148)	
	Lavers (A5)			1400 IX (1 2)			Piedmont Floodp	plain Soils (F19)
	(A10) (IDD N)			rfaco (E6)			(MLRA 136, 147))
				Curface (FO)	7)		Very Shallow Da	rk Surface (TF12)
	Below Dark Surface (A	.11)		Surface (F	/)		Other (Explain in	n Remarks)
Ihick Da	rk Surface (A12)			50115 (FO)		N		
Sandy M MLRA 14	uck Mineral (S1) (LRR 7, 148)	۷,	MLRA 136)	se masses (F12) (LRR	IN,		
Sandy Gl	eyed Matrix (S4)		Umbric Surfac	e (F13) (Ml	RA 136, 12	22)	2	
Sandy Re	edox (S5)		Piedmont Floo	dplain Soils	(F19) (ML	RA 148)	J Indicators of wetland by	hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent Ma	aterial (F21)	(MLRA 12	7, 147)	unless d	isturbed or problematic.
Restrictive I	ayer (if observed):							
Type:							Hydric Soil Present?	
Depth (in	ches):						nyune son resent.	
Remarks:								
Rock refusal	at 14 inches.							

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 07-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-010-011 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex Sione: 2.00/ / 1.1.9
	Lat.: 40.569012 Long.: -81.058091 Datum: NAD65
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 pe	rcent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igcup$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 natur	ally problematic? (If needed, explain any answers in Remarks.)
Summany of Findings Attach site man showi	na compling point locations, transacts, important footures, ata
Summary of Findings - Attach site map show	ng sampling point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes Volume No	
Hydric Soil Present? Yes Ves No •	Is the Sampled Area Yes \bigcirc No \bigcirc
Wetland Hydrology Present? Yes 🔾 No 🔍	within a wetland?
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that ap	bly) Surface Soil Cracks (B6)
Surface Water (A1)	Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Su	lfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhi	zospheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	Reduced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduction in Tilled Soils (C6)
Drift deposits (B3)	urface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Uther (Expla	in in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Water Stained Leaves (P0)	Shallow Aquitard (D3)
	$\square Fac-neutral Test (D5)$
Field Observations:	
Surface Water Present? Yes O No O Depth (incl	nes):
Water Table Present? Yes O No O Depth (incl	nes):
Saturation Present? (includes capillary fringe) Yes O No O Depth (incl	Wetland Hydrology Present? Yes U No ()

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Upland 10, 11

No source of hydrology.

Upland 10, 11

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

		Dominant	ancor	Sampling Point: W-MRK-010-011 UPL
	Absolute	- Species? - Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:(A)
2	0			Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Percent of dominant Species
5	0	0.0%		That Are OBL, FACW, or FAC:0.0% (A/B)
0 7	0			Brouplance Index workshoet
0	0			Total % Cover of Multiply by
0	- <u> </u>	= Total Cover		$OBI \text{ species}$ $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot size:)			EACW species $0 \times 2 = 0$
1	0	0.0%		$\begin{bmatrix} A \\ C \\ S \\ S$
2	0	0.0%		FACt spectres 145 4 580
3	0	0.0%		FACU species $15 \times 4 = 500$
4	0	0.0%		UPL species \longrightarrow x 5 = \longrightarrow
5	0	0.0%		Column Totals: 145 (A) 580 (B)
6	0	0.0%		Prevalence Index = $B/A = 4.000$
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	0			Rapid Test for Hydrophytic Vegetation
9	0			Dominance Test is > 50%
10	0	0.0%		Prevalence Index is \leq 3.0 1
Shrub Stratum (Plot size: <u>15' radius</u>)		= Total Cover		Morphological Adaptations ¹ (Provide supporting
1. Rubus allegheniensis	25	✓ 100.0%	FACU	data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ⁺ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)	25	= Total Cover		regardless of height.
1. Phleum pratense	100	83.3%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Solidago canadensis	10	8.3%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3. Dactylis glomerata	10	8.3%	FACU	fit tall
4				ft in height.
5				
6				Five Vegetation Strata:
7	0			Tree - Woody plants, excluding woody vines, approximately
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and
11				Shrub stratum – Consists of woody plants, excluding woody
12	120	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody)
1	0	□ 0.0%		woody species, except woody vines, less than approximately
2	0	0.0%	·	3 ft (1 m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of height.
4	0	0.0%		
5	0			Hydrophytic
6	0	0.0%		Vegetation Present? Yes O No 🖲
	<u> </u>	= Iotal Cove	r	

Remarks: (Include photo numbers here or on a separate sheet.)

Upland 10, 11

Soil

Sampling Point: W-MRK-010-011 UPL

Depth (inches) Matrix Redox Features Color (moist) % Type: Loc2 Texture Remarks 0-16 10YR 5/4 100 Silt Loam Silt Loam 0-16 10YR 5/4 100 Silt Loam Silt Loam 0-16 10YR 5/4 100 Silt Loam Silt Loam 0 0 0 0 Silt Loam Silt Loam 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 17ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining. M=Matrix Matrix Hydric Soil Indicators: 0 0 0 0 0 0 Hydric Soil Indicators: 0 0 0 0 0 0 0 Hydric Soil Indicators: 0 0 0 0
Color (moist) 9% Color (moist) 9% Type Loc2 Texture Remarks 0-16 10YR 5/4 100 Silt Loam Silt Loam 0 0 0 0 0 Silt Loam Silt Loam 0 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0-16 10YR 5/4 100 Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histic Spipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) C cm Muck (A10) (LRR N) Redox Dark Surface (F7) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Dirtic Dark Surface (A12) Redox Dark Surface (F7) MuRA 147, 148 Other (Explain in Remarks)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix I Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairs Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Peleted Matrix (F3) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 147, 148) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147,148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Drink Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, MID A 122) MID A 122)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MI en al 26)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147,148) Hydrog Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) C m Muck (A10) (LRR N) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : H Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MINERA 147, 148, 147, 148, 147)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (S12) (LRR N, Iron-Manganese Masses (F12) (LRR N,
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators:
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) I coast Parine Redox (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, MIRA 126) MIRA 126) MIRA 136)
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Tron-Manganese Masses (F12) (LRR N, ML 126)
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MIRA 136) Other (Explain in Remarks)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Image: Surface (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Torn-Manganese Masses (F12) (LRR N, MIRA 136)
Instruct pipedon (42) Polyvalue below surface (36) (MLRA 147,146) Coast Prairie Redox (A16) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147,148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLPA 126)
Black Histit (KS) Infill Dark Surface (S9) (MLKA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Hydrogen Sunde (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRA 136)
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MI RA 126) MI RA 126)
Sandy Muck Mineral (S1) (LRR N,
MLRA 14/, 148)MLRA 130)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic vegetation and wetland hydrology must be present
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
lype:
Depth (inches):
Remarks:







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 10	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll		Sampling Date: 07-Nov-18			
Applicant/Owner: AEP Ohio Transmission Company	State: OH S	ampling Point:	W-MRK-011 PEM			
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Rar	nge: S 25 T (Center - 14N R 5W			
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, con	nvex, none): concave	Slope: <u>2.0%</u> / <u>1.1</u> °			
Subregion (LRR or MLRA): LRR N Lat.:	40.568878	Long.: -81.057869	Datum: NAD83			
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 percent	slopes	NWI classification: <u>N</u> /	A			
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) Are Vegetation , soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes 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 🖲	No \bigcirc	
Hydric Soil Present?	Yes 🖲	No \bigcirc	Is the Sampled Area Yes 💿 No 🔿
Wetland Hydrology Present?	Yes 🖲	No \bigcirc	within a Wetland?

Remarks:

This PEM wetland begins at a hillside spring seep and drains downslope to form watercourse S-MRK-010. Water draining down the slope follows a depression and becomes a more defined stream outside the established right-of-way. Wetland boundary follows edge of depression and hydrophytic vegetation.

Hydrology

Wetland Hydrology Indicators	s:				Secondary Indicators (minimum of two requi	red)
Primary Indicators (minimum	Primary Indicators (minimum of one required; check all that apply)				Surface Soil Cracks (B6)	
Surface Water (A1)			True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)			Hydrogen Sulfide Or	dor (C1)	Drainage Patterns (B10)	
Saturation (A3)			 Oxidized Rhizospher 	res along Living I	Roots (C3) Moss Trim Lines (B16)	
Water Marks (B1)			Presence of Reduce	d Iron (C4)	Dry Season Water Table (C2)	
Sediment Deposits (B2)			Recent Iron Reducti	ion in Tilled Soils	(C6) Crayfish Burrows (C8)	
Drift deposits (B3)			Thin Muck Surface ((C7)	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)			Other (Explain in Re	emarks)	Stunted or Stressed Plants (D1)	
Iron Deposits (B5)				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Geomorphic Position (D2)	
Inundation Visible on Aerial	Imagery (B7)			Shallow Aquitard (D3)	
Water-Stained Leaves (B9)					Microtopographic Relief (D4)	
Aquatic Fauna (B13)					FAC-neutral Test (D5)	
Field Observations:						
Surface Water Present? Y	íes \bigcirc	No 🖲	Depth (inches):			
Water Table Present?	res 🖲	No \bigcirc	Depth (inches): _	8		
Saturation Present? (includes capillary fringe)	'es 🖲	No O	Depth (inches):	8	Wetland Hydrology Present? Yes ♥ No ∪ —	
Describe Recorded Data (stre	am gaug	je, monitor	ring well, aerial photos	, previous insp	ections), if available:	
Remarks:						
Source of hydrology is spring	seeps ar	nd high wa	ater table.			
, , , , ,	·	5				
						I

Wetland 11 VEGETATION (Five/Four Strata)- Use scientific names of plants.

,		Dominant		Sampling Point: <u>W-MRK-011 PEM</u>		
	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species		
1	0			That are OBL, FACW, or FAC: (A)		
2				Total Number of Dominant		
3				Species Across All Strata: (B)		
4				Percent of dominant Species		
5	0			That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
6						
7	0			Prevalence Index worksheet:		
8						
Sapling-Sapling/Shrub Stratum (Plot size:):	= Total Cover		OBL species $70 \times 1 = 70$		
1	0	0.0%		FACW species $65 \times 2 = 130$		
2	0	0.0%		FAC species $35 \times 3 = 105$		
3	0	0.0%		FACU species $0 \times 4 = 0$		
۵ ۵	0	0.0%		UPL species $0 \times 5 = 0$		
5	0	0.0%		Column Totals: <u>170</u> (A) <u>305</u> (B)		
6	0	0.0%		Prevalence Index = $B/A = 1.794$		
7	0	0.0%				
8	0	0.0%		Hydrophytic Vegetation Indicators:		
9.	0	0.0%				
10	0	0.0%		✓ Dominance Test is > 50%		
	0.	= Total Cove		✓ Prevalence Index is ≤3.0 [⊥]		
Shrub Stratum (Plot size:)	0	0.0%		Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)		
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must		
4	0	0.0%		be present, unless disturbed or problematic.		
5	0	0.0%		Definition of Vegetation Strata:		
6	0	0.0%		Four Vegetation Strata:		
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3		
	0 :	= Total Cove		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Plot size. <u>5 radius</u>)		20,40/		Sapling/shrub stratum – Consists of woody plants, excluding		
1. Leersia oryzoides		 ✓ 29.4% ✓ 17.6% 		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Juncus ettusus		14.70/		Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28		
3. Dichanthelium clandestinum	25	 ✓ 14.7% ✓ 14.7% 		ft tall, Woody vines – Consists of all woody vines greater than 3.28		
4. Cyperus esculentus	20	11 80%	OBI	ft in height.		
5. <u>Carex crinita</u>		<u> </u>	EACW/			
6. <u>Unoclea sensibilis</u>	10	5.9%	EAC	Five Vegetation Strata:		
	0	0.0%	FAC	Tree - Woody plants, excluding woody vines, approximately		
8				diameter at breast height (DBH).		
9				Sapling stratum – Consists of woody plants, excluding		
10				woody vines, approximately 20 ft (6 m) or more in height and		
11				Shruh stratum – Consists of woody plants, excluding woody		
12	170			vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:) 1		1/0 = lotal Cover		Herb stratum – Consists of all herbaceous (non-woody)		
		□0.0%		woody species, except woody vines, less than approximately		
2	0	0.0%		3 ft (1 m) in height.		
3	0	0.0%		Woody vines – Consists of all woody vines, regardless of		
4	0	0.0%				
5	0	0.0%		Hydrophytic		
6		0.0%		Vegetation		
	0 = Total Cover			Present? Yes 💌 No 🔾		
Remarks: (Include photo numbers here or on a separate she	et.)					
Wetland 11

Soil

Sampling Point: W-MRK-011 PEM

Profile Desci	iption: (Describe to	the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indicators.)	
Depth (inches)	Color (moist)	0/2	Color (moist)	dox reatu	Type 1		Texture	Pemarks
0-16	5Y 4/1	75	10YR 5/8	25	C	M.PI	Silty Clay Loam	10% oxidized hizospheres
	p	-						
1								
¹ Type: C=Con	centration. D=Depletio	on. RM=Red	uced Matrix, CS=Cover	red or Coat	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=I	Matrix
Hydric Soil 1	Indicators:						Indicators for Proble	ematic Hydric Soils ³ :
☐ Histosol (A1)		Dark Surface ((S7)			2 cm Muck (A10)	(MLRA 147)
Histic Epi	pedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)	Coast Prairie Red	ox (A16)
Black Hist	tic (A3)		Thin Dark Surf	face (S9) (N	4LRA 147, 1	148)	(MLRA 147,148)	0X (A10)
Hydroger	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)		Piedmont Floodpl	lain Soils (F19)
Stratified	Layers (A5)		Depleted Matri	ix (F3)			(MLRA 136, 147)	
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	urface (F6)			Very Shallow Dar	k Surface (TF12)
Depleted	Below Dark Surface (A	A11)	Depleted Dark	Surface (F	7)		Other (Evolain in	Remarks)
Thick Dar	k Surface (A12)	,	Redox Depress	sions (F8)				Remarks)
Sandy Mi	ick Mineral (S1) (LRR I	N	Iron-Mangane	se Masses ((F12) (LRR	N,		
MLRA 142	7, 148)	N,	MLRA 136)			,		
Sandy Gle	eved Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)		
Sandy Re	dox (S5)		Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	³ Indicators of	hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent Ma	aterial (F21) (MIRA 12	, 7 147)	wetland hyd	drology must be present, sturbed or problematic
						, 147)		
Restrictive L	ayer (if observed):							
Туре:								\sim
Depth (inc	hes):						Hydric Soil Present?	Yes 🔍 No 🔾
Remarks:								
Remarks.								

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 07-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-010-011 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): convex Sione: 2.00/ / 1.1.9
	Lat.: 40.569012 Long.: -81.058091 Datum: NAD65
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 pe	rcent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology signif	icantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igcup$
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 natur	ally problematic? (If needed, explain any answers in Remarks.)
Summany of Findings Attach site man showi	na compling point locations, transacts, important footures, ata
Summary of Findings - Attach site map show	ng sampling point locations, transects, important reatures, etc.
Hydrophytic Vegetation Present? Yes Volume No	
Hydric Soil Present? Yes Ves No •	Is the Sampled Area Yes \bigcirc No \bigcirc
Wetland Hydrology Present? Yes 🔾 No 🔍	within a wetland?
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that ap	bly) Surface Soil Cracks (B6)
Surface Water (A1)	Plants (B14) Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Su	lfide Odor (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhi	zospheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	Reduced Iron (C4) Dry Season Water Table (C2)
Sediment Deposits (B2)	Reduction in Tilled Soils (C6)
Drift deposits (B3)	urface (C7) Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Uther (Expla	in in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Motor Stained Leaves (P0)	Shallow Aquitard (D3)
	$\square Fac-neutral Test (D5)$
Field Observations:	
Surface Water Present? Yes O No O Depth (incl	nes):
Water Table Present? Yes O No O Depth (incl	nes):
Saturation Present? (includes capillary fringe) Yes O No O Depth (includes capillary fringe)	Wetland Hydrology Present? Yes U No ()

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Upland 10, 11

No source of hydrology.

Upland 10, 11

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

	Dominant		ancor	Sampling Point: W-MRK-010-011 UPL		
	Absolute	- Species? - Rel.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species		
1	0			That are OBL, FACW, or FAC:(A)		
2	0			Total Number of Dominant		
3				Species Across All Strata: <u>2</u> (B)		
4				Percent of dominant Species		
5	0	0.0%		That Are OBL, FACW, or FAC:0.0% (A/B)		
0 7	0			Brouplance Index workshoet		
0	0			Total % Cover of Multiply by		
0	- <u> </u>	= Total Cover		$OBI \text{ species}$ $0 \times 1 = 0$		
Sapling-Sapling/Shrub Stratum (Plot size:)			EACW species $0 \times 2 = 0$		
1	0	0.0%		$\begin{bmatrix} A \\ C \\ S \\ S$		
2	0	0.0%		FACt spectres 145 4 580		
3	0	0.0%		FACU species $15 \times 4 = 500$		
4	0	0.0%		UPL species \longrightarrow x 5 = \longrightarrow		
5	0	0.0%		Column Totals: 145 (A) 580 (B)		
6	0	0.0%		Prevalence Index = $B/A = 4.000$		
7	0	0.0%		Hydrophytic Vegetation Indicators:		
8	0			Rapid Test for Hydrophytic Vegetation		
9	0			Dominance Test is > 50%		
10	0	0.0%		Prevalence Index is \leq 3.0 1		
Shrub Stratum (Plot size: <u>15' radius</u>)		= Total Cover		Morphological Adaptations ¹ (Provide supporting		
1. Rubus allegheniensis	25	✓ 100.0%	FACU	data in Remarks or on a separate sheet)		
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)		
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must		
4	0	0.0%		be present, unless disturbed or problematic.		
5	0	0.0%		Definition of Vegetation Strata:		
6	0	0.0%		Four Vegetation Strata:		
7	0	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size: <u>5' radius</u>)	25	= Total Cover		regardless of height.		
1. Phleum pratense	100	83.3%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Solidago canadensis	10	8.3%	FACU	Herb stratum – Consists of all herbaceous (non-woody)		
3. Dactylis glomerata	10	8.3%	FACU	fit tall		
4				ft in height.		
5						
6				Five Vegetation Strata:		
7	0			Tree - Woody plants, excluding woody vines, approximately		
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
9				Sapling stratum – Consists of woody plants, excluding		
10				woody vines, approximately 20 ft (6 m) or more in height and		
11				Shrub stratum – Consists of woody plants, excluding woody		
12	120	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody)		
1	0	□ 0.0%		woody species, except woody vines, less than approximately		
2	0	0.0%	·	3 ft (1 m) in height.		
3	0			Woody vines – Consists of all woody vines, regardless of height.		
4	0	0.0%				
5	0			Hydrophytic		
6	0	0.0%		Vegetation Present? Yes O No 🖲		
	<u> </u>	= Iotal Cove	r			

Remarks: (Include photo numbers here or on a separate sheet.)

Upland 10, 11

Soil

Sampling Point: W-MRK-010-011 UPL

Depth (inches) Matrix Redox Features Color (moist) % Type: Loc2 Texture Remarks 0-16 10YR 5/4 100 Silt Loam Silt Loam 0-16 10YR 5/4 100 Silt Loam Silt Loam 0-16 10YR 5/4 100 Silt Loam Silt Loam 0 0 0 0 Silt Loam Silt Loam 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 17ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining. M=Matrix Matrix Hydric Soil Indicators: 0 0 0 0 0 0 Hydric Soil Indicators: 0 0 0 0 0 0 0 Hydric Soil Indicators: 0 0 0 0
Color (moist) 9% Color (moist) 9% Type Loc2 Texture Remarks 0-16 10YR 5/4 100 Silt Loam Silt Loam 0 0 0 0 0 Silt Loam Silt Loam 0 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 Silt Loam 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
0-16 10YR 5/4 100 Silt Loam Silt Loam Silt Loam Silt Loam Silt Loam
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histic Spipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) C cm Muck (A10) (LRR N) Redox Dark Surface (F7) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Dirtic Dark Surface (A12) Redox Dark Surface (F7) MuRA 147, 148 Other (Explain in Remarks)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix I Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairs Redox (A16) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Peleted Matrix (F3) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 147, 148) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147,148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Drink Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, MID A 122) MID A 122)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MI en al 26)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147,148) Hydrog Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) C m Muck (A10) (LRR N) Redox Dark Surface (F6) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : H Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Dark Surface (F7) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MINERA 147, 148, 147, 148, 147)
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
I Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Depleted Below Dark Surface (A12) Redox Depressions (F8) Thick Dark Surface (S12) (LRR N, Iron-Manganese Masses (F12) (LRR N,
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators:
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) I coast Parine Redox (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, MIRA 126) MIRA 126) MIRA 136)
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks)
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) 2 cm Muck (A10) (MLRA 147) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Iron-Manganese Masses (F12) (LRR N, MICA 147) Other (Explain in Remarks)
Hydric Soil Indicators: Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Indicators for Problematic Hydric Soils ³ : Histosol (A1) Dark Surface (S7) Histosol (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Depleted Below Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Image: Surface (A1) Dark Surface (S7) 2 cm Muck (A10) (MLRA 147) Histic Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Coast Prairie Redox (A16) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Torn-Manganese Masses (F12) (LRR N, MIRA 136)
Instruct pipedon (42) Polyvalue below surface (36) (MLRA 147,146) Coast Prairie Redox (A16) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) (MLRA 147,148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) (MLRA 136, 147) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLPA 126)
Black Histit (KS) Infill Dark Surface (S9) (MLKA 147, 148) (MLRA 147, 148) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Hydrogen Sunde (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19) Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Stratified Layers (A5) Depleted Matrix (F3) (MLRA 136, 147) 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Other (Explain in Remarks) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N,
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks) Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, Sandy Muck Mineral (S1) (LRR N, MLRA 136) MLRA 136)
Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, Iron-Manganese Masses (F12) (LRR N, MI RA 126) MI RA 126)
Sandy Muck Mineral (S1) (LRR N,
MLRA 14/, 148)MLRA 130)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic vegetation and wetland hydrology must be present
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.
Restrictive Layer (if observed):
lype:
Depth (inches):
Remarks:





Wetland 11

Site: AEF	' Carro	ollton-	Ga	ble Rater(s): M.R	R.Kline, R.C.	Massa	Date:	11/7/2018
						Field Id:		
	Г	25				W-MRK-011 PEM		
	su		age					
	U	25		Metric 5. Special Wetlands.				
max 10 pts.	su	ubtotal		Check all that apply and score as i	indicated.			
				Bog (10)				
				Fen (10) Old growth forget (10)				
				Mature forested wetland (5)				
				Lake Erie coastal/tributary wetland-unrestricted	d hydrology (10)			
				Lake Erie coastal/tributary wetland-restricted h	ydrology (5)			
				Lake Plain Sand Prairies (Oak Openings) (10)				
				Relict Wet Praires (10) Known occurrence state/federal threatened or	endangered spe	ties (10)		
				Significant migratory songbird/water fowl habit	at or usage (10)	ies (10)		
				Category 1 Wetland. See Question 5 Qualitation	ve Rating (-10)			
	1	26		Metric 6. Plant communities,	interspers	ion, microtopograph	ıy.	
max 20pts.	s	ubtotal		6a. Wetland Vegetation Communiti	ies.	Vegetation Community	v Cover Scale	
				Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0	.2471 acres) contiguous area	
				Aquatic bed	1	Present and either comprises s	small part of wetland's 1	
			1	Emergent		vegetation and is of moderate	quality, or comprises a	
				Shrub	- 2	significant part but is of low qua	ality	
				Mudflats	2	vegetation and is of moderate	quality or comprises a small	
				Open water		part and is of high quality	quality of comprises a small	
				Other	3	Present and comprises signific	ant part, or more, of wetland's 3	
				6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	ý	
		1		Select only one.		Narrative Description of Veg	atation Quality	
				Moderately high(4)		Low spp diversity and/or predo	minance of nonnative or low	
				Moderate (3)		disturbance tolerant native spe	cies	
				Moderately low (2)		Native spp are dominant comp	onent of the vegetation, mod	
			х	Low (1)		although nonnative and/or distu	urbance tolerant native spp	
		l		None (0)		can also be present, and speci moderately high, but concreling	es diversity moderate to	
				Table 1 ORAM long form for list Add		threatened or endangered spn	to	
				or deduct points for coverage		A predominance of native spec	ies, with nonnative spp high	
				Extensive >75% cover (-5)		and/or disturbance tolerant nat	ive spp absent or virtually	
				Moderate 25-75% cover (-3)		absent, and high spp diversity	and often, but not always,	
			Х	Sparse 5-25% cover (-1)		the presence of rare, threatene	ed, or endangered spp	
				Absent (1)		Mudflat and Open Water Clas	ss Quality	
		1		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)		
				Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47	acres)	
				Vegetated hummucks/tussucks	2	Moderate 1 to <4ha (2.47 to 9.	88 acres)	
				Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more		
				Amphibian breeding pools		Microtopography Cover Scal	e	
					0	Absent		
					1	Present very small amounts or	if more common	
						of marginal quality	but not of highost	
Categorv 1					2	quality or in small amounts of h	ighest quality	
	26.0			TAL (max 100 ptc)		Dresent in medt t		
	2010	JUNHAN		1 AL(110X 100 PLS)	3	Fresent in moderate or greater	amounts	

and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 11	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Facing South	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 11	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	ect	City/County: Carroll	Sa	mpling Date: 07-Nov-18		
Applicant/Owner: AEP Ohio Transmission (Company	State: OH Samp	Sampling Point: W-MRK-012 PEM			
Investigator(s): M.R.Kline, R.C.Massa		Section, Township, Range:	s 25 T Cer	nter - 14N R 5W		
Landform (hillslope, terrace, etc.): Swa	ale	Local relief (concave, convex	, none): concave	Slope: 1.0% / 0.6 °		
Subregion (LRR or MLRA): PR N	lat :	/0.569195	ong: -81 057073	• • • • • <u></u> • <u></u> Datum: NAD83		
Soil Man Unit Namer CoB: Coshocton-Ke	ene silt loams 3 to 8 percen		U classification: N/A			
	in the second second					
Are climatic/hydrologic conditions on the	site typical for this time of ye	ear? res \odot no \bigcirc (if r	io, explain in Remarks.			
Are Vegetation , Soil , or		y disturbed? Are "Norm	al Circumstances" pres	sent? Tes S NO C		
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	s 🔍 No 🔾					
Hydric Soil Present? Ye	s 🔍 No 🔾	Is the Sampled Area				
Wetland Hydrology Present? Yes	s 🔍 No 🔾	within a Wetland?	res \odot no \bigcirc			
Bomorke:						
This PEM wetland begins at a culvert, dr	raining from an adjacent well	pad. Water drains downslop	e within a roadside swa	ale and eventually dissipates		
into an upland forest. The wetland bour	ndary follows the edge of swa	ile.		, ,		
	, ,					
Hydrology						
Wetland Hydrology Indicators:			Secondary Indicators	(minimum of two required)		
Primary Indicators (minimum of one rec	quired; check all that apply)		Surface Soil Crack			
Surface Water (A1)	True Aquatic Plant	s (B14)	Sparsely Vegetate	d Concave Surface (B8)		
High Water Table (A2)	Hydrogen Sulfide (Odor (C1)	Drainage Patterns	(B10)		
Saturation (A3)	Oxidized Rhizosphe	eres along Living Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)	Presence of Reduc	ed Iron (C4)	Dry Season Water	Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduc	tion in Tilled Soils (C6)	Crayfish Burrows	(C8)		
Drift deposits (B3)	Thin Muck Surface	(C7)	Saturation Visible	on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in R	lemarks)	Stunted or Stresse	ed Plants (D1)		
Iron Deposits (B5)			Geomorphic Positi	on (D2)		
Inundation Visible on Aerial Imagery (B7	<i>'</i>)		Shallow Aquitard	(D3)		
Water-Stained Leaves (B9)			Microtopographic	Relief (D4)		
Aquatic Fauna (B13)			✓ FAC-neutral Test	(D5)		
Field Observations:	\sim					
Surface Water Present? Yes • N	lo ∪ Depth (inches):	1				
Water Table Present? Yes • N	lo ∪ Depth (inches):		drology Drocort?			
Saturation Present? (includes capillary fringe) Yes • N	Depth (inches):	0 wetland Hy	resent?			
Desculta Descuded D 1 (1	and a state of the second s	a manufacture for a stress of the Alexandress of th	- ! - -			

Remarks:

Wetland 12

Source of hydrology is surface runoff.

Wetland 12 VEGETATION (Five/Four Strata)- Use scientific names of plants.

,		Dominant		Sampling Point: W-MRK-012 PEM		
(Plot size)	Absolute % Cover	Rel.Strat.	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size)	0		518185	Number of Dominant Species		
1	0	0.0%		That are OBL, FACW, of FAC:(A)		
2.	0	0.0%		Total Number of Dominant		
3	0	0.0%		Species Across All Strata:(B)		
4 5	0	0.0%		Percent of dominant Species		
6	0	0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
7	0	0.0%		Prevalence Index worksheet:		
8	0	0.0%		Total % Cover of: Multiply by:		
0	0 :	= Total Cove	-	OBL species $75 \times 1 = 75$		
Sapling-Sapling/Shrub Stratum (Plot size:)			FACW species $60 \times 2 = 120$		
1	0	0.0%		FAC species $0 \times 3 = 0$		
2	0			EACL species $0 \times 4 = 0$		
3	0			$\frac{1}{10} = \frac{1}{10} $		
4	0			$\frac{1}{2}$		
5				$\begin{array}{c} \text{Column lotals:} \underline{155} \text{ (A)} \underline{195} \text{ (b)} \end{array}$		
6	0			Prevalence Index = $B/A = 1.444$		
7				Hydrophytic Vegetation Indicators:		
8				Rapid Test for Hydrophytic Vegetation		
9				✓ Dominance Test is > 50%		
10	0	0.0%		\checkmark Prevalence Index is \leq 3.0 1		
Shrub Stratum (Plot size:)	:	= Total Cove	ſ	Morphological Adaptations ¹ (Provide supporting		
1	0		·	Problematic Hydrophytic Vegetation ¹ (Explain)		
2				¹ Indicators of hydric coil and watland hydrology must		
3 A				be present, unless disturbed or problematic.		
4				Definition of Vegetation Strata:		
6		0.0%		Four Vegetation Strata:		
7				Tree stratum – Consists of woody plants, excluding vines, 3		
	- <u> </u>	= Total Cove		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Plot size. <u>5 radius</u>)	75	V FE 60 /		Sapling/shrub stratum – Consists of woody plants, excluding		
Persicarla sagittata		20.6%	EACW/	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Cyperus esculentus	10	7 4%	FACW	plants, regardless of size, and all other plants less than 3.28		
Enilohium coloratum	10	7.4%	FACW	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
5	0	0.0%		ft in height.		
6	0	0.0%		Fire Manadation Charles		
7	0	0.0%		Five vegetation Strata:		
8	0	0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larαer in		
9	0	0.0%		diameter at breast height (DBH).		
10	0	0.0%		Sapling stratum – Consists of woody plants, excluding		
11	0	0.0%		less than 3 in. (7.6 cm) DBH.		
12.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody		
Woody Vine Stratum (Plot size)	135 :	= Total Cove	-	vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb stratum – Consists of all berbaceous (non-woody)		
	0	0.0%		plants, including herbaceous vines, regardless of size, and		
2	 	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.		
3	0	0.0%		Woody vines - Consists of all woody vines regardless of		
Δ	0	0.0%		height.		
5	0	0.0%				
6	- <u> </u>	0.0%		Hydrophytic Vegetation		
0	0	= Total Cove	r	Present? Yes No		
Pemarks: (Include photo numbers here or on a constate she	ot)					

a sep

W	etla	anc	112

Sampling Point: W-MRK-012 PEM

Soil								Sampling Point: W	-MRK-012 PEM
Profile Desc	ription: (D	escribe to	the depth	needed to do	cument the	indicator or c	onfirm the	absence of indicators	.)
Donth		Matrix			Redox F	eatures			-
(inches)	Color	(moist)	%	Color (m	oist) o	% Tvpe ¹	Loc ²	Texture	Remarks
0-4	2.5Y	5/2	98	10YR 6	6/6 20	С	М	Silty Clay Loam	
4-16	2.5Y	6/6	100					Clay Loam	
							-		
	-								
		-	-						
1									
¹ Type: C=Con	centration.	D=Depleti	on. RM=Rec	luced Matrix, CS	=Covered or	Coated Sand G	Frains ² Loo	cation: PL=Pore Lining. I	1=Matrix
Hydric Soil	Indicators							Indicators for Pro	oblematic Hydric Soils ³ :
Histosol ((A1)			Dark S	urface (S7)			2 cm Muck (A	10) (MLRA 147)
Histic Epi	pedon (A2)			Polyval	ue Below Sur	face (S8) (MLR	A 147,148)	Coast Prairie F	Redox (A16)
Black His	tic (A3)			Thin Da	ark Surface (S	59) (MLRA 147,	148)	(MLRA 147,14	8)
Hydroger	n Sulfide (A	4)		Loamy	Gleyed Matrix	x (F2)		Piedmont Floo	odplain Soils (F19)
	Layers (A5)		✓ Deplete	ed Matrix (F3))		(MLRA 136, 1	47)
	CK (A10) (LF	(R N)			Dark Surface	(F6)		Very Shallow	Dark Surface (TF12)
	Below Dark	< Surface (/	A11)		Dank Surra	(F7)		Other (Explain	in Remarks)
Ihick Dar	rk Surface (A12)				(FO)	D NI		
MLRA 14	uck Mineral 7, 148)	(S1) (LRR	N,	MLRA 1	.36)	5565 (1 12) (LINF	× 1N,		
Sandy Gl	eved Matrix	(54)		Umbric	Surface (F13	3) (MLRA 136, 1	122)		
Sandy Re	dox (S5)	(-)		Piedmo	ont Floodplain	n Soils (F19) (M	LRA 148)	³ Indicators	of hydrophytic vegetation and
Stripped	Matrix (S6)			Red Pa	rent Material	(F21) (MLRA 1	27, 147)	unles	s disturbed or problematic.
							, ,		
Restrictive L	ayer (if ob	oserved):							
Туре:								Hydric Soil Present	
Depth (inc	ches):							Hydric Soli Present	
Remarks:									

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 07-Nov-18				
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-012 UPL				
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 25 T Center - 14N R 5				
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): CONVEX Slope: 1.0% / 0.6 °				
Subregion (LRR or MLRA): LRR N	at.: 40.568154 Long.: -81.056936 Datum: NAD83				
Soil Map Unit Name: CoB; Coshocton-Keene silt loams, 3 to 8 pe	rcent slopes NWI classification: N/A				
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes $ullet$ No $igodot$ (If no, explain in Remarks.)				
Are Vegetation . , Soil , or Hydrology signifi	cantly disturbed? Are "Normal Circumstances" present? Yes $ullet$ No $igodot$				
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 naturally problematic? (If needed, explain any answers in Remarks.)					
Summary of Findings - Attach site map showin	ig sampling point locations, transects, important features, etc.				
Hydrophytic Vegetation Present? Yes V NO V					
Hydric Soil Present? Yes V No •	Is the Sampled Area Yes O No 💿				
Wetland Hydrology Present? Yes 🔾 No 🔍					
Hydrology					
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one required; check all that app	ly) Surface Soil Cracks (B6)				
Surface Water (A1)	Plants (B14)				
High Water Table (A2)	fide Odor (C1) Drainage Patterns (B10)				
Saturation (A3)	ospheres along Living Roots (C3) Moss Trim Lines (B16)				
Water Marks (B1) Presence of R Sediment Deposits (P2)	Leduced Iron (C4) Dry Season Water Table (C2)				
Drift deposits (B3)	reduction in Tilled Soils (Co)				
Algal Mat or Crust (B4)	n in Remarks)				
☐ Iron Deposits (B5)					
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)				
Water-Stained Leaves (B9)	Microtopographic Relief (D4)				
Aquatic Fauna (B13)	FAC-neutral Test (D5)				
Field Observations:					
Surface Water Present? Yes Vo Depth (inch	es):				
Water Table Present? Yes 🔾 No 💌 Depth (inch	es): Wotland Hudrology Drosant? Vec 🔿 No 🔍				
Saturation Present? Yes No Depth (inch					
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:				

Remarks:

Upland 12

No source of hydrology.

Upland 12 VEGETATION (Five/Four Strata)- Use scientific names of plants.

,		Dominant		Sampling Point: W-MRK-012 UPL
	Absolute	Rel.Strat.	indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC:(A)
2		0.0%		Total Number of Dominant
3		0.0%		Species Across All Strata: (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC:0.0% (A/B)
6				, ,
7	0	0.0%		Prevalence Index worksheet:
8		0.0%		I otal % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:) :	= Total Cover		OBL species $0 \times 1 = 0$
1	0	0.0%		FACW species $0 \times 2 = 0$
2	0	0.0%		FAC species $0 \times 3 = 0$
3	0	0.0%		FACU species $0 \times 4 = 0$
Δ	0	0.0%		UPL species $\frac{100}{x 5} = \frac{500}{x 5}$
5	0	0.0%		Column Totals: <u>100</u> (A) <u>500</u> (B)
6	0	0.0%		Prevalence Index = $B/\Delta = 5.000$
7	0	0.0%		
8	0	0.0%		Hydrophytic Vegetation Indicators:
Q	0	0.0%		Rapid Test for Hydrophytic Vegetation
10	0	0.0%		Dominance Test is > 50%
	0 :	= Total Cover		Prevalence Index is ≤3.0 [⊥]
Shrub Stratum (Plot size:)	0			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
(Plot size: 5' radius)	0 :	= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Fot size: <u>5 radius</u>)	100	100.0%	LIDI	Sapling/shrub stratum – Consists of woody plants, excluding
1. zea mays	0	0.0%		vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2		0.0%		plants, regardless of size, and all other plants less than 3.28
3		0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
4 5	0	0.0%		ft in height.
6	0	0.0%		
7		0.0%		Five Vegetation Strata:
9		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in (7 6 cm) or larger in
0				diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding
11		0.0%		less than 3 in. (7.6 cm) DBH.
12		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	100 :	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1				woody species, except woody vines, less than approximately
2	0			3π (1 m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of height.
4	0			
5	0			Hydrophytic
6	0	□0.0%		Vegetation Present? Yes No •
	0	= Total Cover		
Pamarkey (Include photo numbers here or on a congrate she	of)			

Remarks: (Include photo numbers here or on a separate sheet.)

|--|

Soil							5	Sampling Point: <u>W-M</u>	RK-012 UPL	
Profile Desc	ription: (D	escribe to	the depth	needed to docume	nt the indica	ator or co	nfirm the	absence of indicators.)		
Denth		Matrix		R	edox Featur	es				
(inches)	Color	(moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks	
0-6	10YR	4/3	100					Silt Loam		
6-16	10YR	6/6	100					Silty Clay Loam		
	-									
	-									
		-	-					-		
				·						
1										
¹ Type: C=Cor	centration.	D=Depletio	on. RM=Re	duced Matrix, CS=Cove	ered or Coate	d Sand Gra	ains ² Loca	ation: PL=Pore Lining. M=	Matrix	
Hydric Soil	Indicators	:						Indicators for Proble	ematic Hydric Soils ³ :	
	(A1)			Dark Surface	(S7)			2 cm Muck (A10)	(MLRA 147)	
Histic Epi	pedon (A2)			Polyvalue Bel	ow Surface (S	58) (MLRA	147,148)	Coast Prairie Red	ox (A16)	
Black His	tic (A3)			Thin Dark Su	rface (S9) (M	LRA 147, 1	.48)	(MLRA 147,148)		
Hydroger	n Sulfide (A4	4)		Loamy Gleye	d Matrix (F2)			Piedmont Floodp	ain Soils (F19)	
Stratified	Layers (A5))		Depleted Mat	rix (F3)			(MLRA 136, 147)		
2 cm Muc	ck (A10) (LR	RR N)		Redox Dark S	Surface (F6)			Very Shallow Dar	k Surface (TF12)	
	Below Dark	Surface (A	A11)	Depleted Dar	k Surface (F/)		Other (Explain in	Remarks)	
Thick Da	rk Surface (A12)		Redox Depres	ssions (F8)					
Sandy Mi	uck Mineral	(S1) (LRR	Ν,	Iron-Mangane MI RA 136)	ese Masses (H	-12) (LRR I	Ν,			
	7, 140)	(64)			ce (F13) (ML	RA 136 12	(2)			
		(54)			odalain Soils	(E10) (MI	/ DA 1/18)	³ Indicators of	hydrophytic vegetation and	
	Motrix (SS)						(MLKA 170)	wetland hy	drology must be present,	
					Idlefidi (F21)	(MLKA 12)	/, 14/)	unless disturbed or problematic.		
Restrictive L	ayer (if ob.	served):								
Туре:										
Depth (ind	ches):							Hydric Soil Present?	Yes 🔾 No 🖲	
Remarks:										





Wetland 12



and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 12	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Facing North	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 12	
Date:	
November 7, 2018	
Description:	
PEM	
Category 1	
Facing South	
	CONTRACTOR OF CONT
Description: PEM Category 1 Facing South	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project



Wetland 13

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

WEILAND DEIERMINAIN	
Carrolitori-Gable 138 kV Project	City/County: Carroll Sampling Date: 07-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-013 PFO
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 19 T Center - 14N R 5
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): Slope:/ °
Subregion (LRR or MLRA): LRR N L	.at.: 40.565898 Long.: -81.054224 Datum: NAD83
Soil Map Unit Name: Or; Orrville silt loam, 0 to 3 percent slopes,	occasionally flooded NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes No (If no, explain in Remarks.)
Are Vegetation Soil or Hydrology signific	cantly disturbed? Are "Normal Circumstances" present? Yes
	illy problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area Na O
Wetland Hydrology Present? Yes No	within a Wetland? Tes \odot No \bigcirc
Pomerkei	
This PFO wetland is located in a depression adjacent to the existi	ng right-of-way edge. Wetland is within the floodplain of S-MRK-012 and is
inundated frequently by precipitation and stream flooding. Wetla	and boundary follows edge of depression and stream edge.
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Surface Water (A1)	Image: Sufface Soli Cracks (B6) Plants (B14) Sparsely Vegetated Conceve Surface (P8)
✓ Sunde Water (A1) The Addate	fide (dor (C1)
Saturation (A3)	ospheres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1)	$\frac{1}{2} \frac{1}{2} \frac{1}$
Sediment Deposits (B2)	
	= Crayisin Durrows (CO)
Algel Mat or Cruct (P4)	Trace (C/)
Uther (Explain	n in Remarks)
Linin Deposits (B3)	
	Microtopographic Relief (D4)
	I FAC-neutral Test (D5)
Field Observations:	
	es):4
Water Table Present? Yes Vo Depth (inch	es): Wetland Hydrology Present? Yes 🔍 No 🔾
(includes capillary fringe) Yes No Depth (includes	es):0
Describe Recorded Data (stream gauge, monitoring well, aerial p	hotos, previous inspections), if available:
Remarks:	
Source of hydrology is spring seeps and seasonal flooding.	

Wetland 13 **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

			Dominant Species?		Sampling Point: <u>W-MRK-013 PFO</u>	
	Absolute	e Rel.Strat.		Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: <u>30' radius</u>)	% Cover		over	Status	Number of Dominant Species	
1. <u>Salix nigra</u>	60		100.0%	OBL	That are OBL, FACW, or FAC:(A)	
2			0.0%		Total Number of Dominant	
3			0.0%		Species Across All Strata: <u>3</u> (B)	
4			0.0%		Percent of dominant Species	
5	0		0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)	
0 7	0		0.0%		Brouglance Index workshoot	
0	0		0.0%		Total % Cover of Multiply by	
0	- <u> </u>		otal Cover		$\mathbf{OB} \mathbf{species} \qquad 105 \mathbf{x} 1 = 105$	
Sapling-Sapling/Shrub Stratum (Plot size: 15' radius)				EACW species $110 \times 2 = 220$	
1. Salix nigra	25	✓	100.0%	OBL	FAC species $\frac{20}{10} \times 2 = \frac{60}{220}$	
2	0		0.0%		FAC species 20 x s = 0	
3	0		0.0%		FACU species $0 \times 4 = 0$	
4	0		0.0%		UPL species $-\frac{1}{2}$ x 5 = $-\frac{1}{2}$	
5	0		0.0%		Column Totals: 235 (A) 385 (B)	
6	0		0.0%		Prevalence Index = $B/A = 1.638$	
7	0		0.0%		Hydrophytic Vegetation Indicators:	
8	0	Ц	0.0%		Rapid Test for Hydrophytic Vegetation	
9	0		0.0%		✓ Dominance Test is > 50%	
10	0		0.0%		\checkmark Prevalence Index is \leq 3.0 ¹	
Shrub Stratum (Plot size:)		= То	otal Cover		Morphological Adaptations ¹ (Provide supporting	
1	0		0.0%		data in Remarks or on a separate sheet)	
2	0		0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)	
3	0		0.0%		¹ Indicators of hydric soil and wetland hydrology must	
4	0		0.0%		be present, unless disturbed or problematic.	
5	0		0.0%		Definition of Vegetation Strata:	
6	0		0.0%		Four Vegetation Strata:	
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in, (7.6 cm) or more in diameter at breast height (DBH).	
Herb Stratum (Plot size: <u>5' radius</u>)		= To	otal Cover		regardless of height.	
1. Phalaris arundinacea	100	\checkmark	66.7%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines less than 3 in DBH and greater than 3 28 ft (1 m) tall	
2. Persicaria sagittata	20		13.3%	OBL	Herb stratum – Consists of all herbaceous (non-woody)	
3. Verbesina alternifolia	20		13.3%	FAC	plants, regardless of size, and all other plants less than 3.28	
4. Onoclea sensibilis	5		3.3%	FACW	Woody vines – Consists of all woody vines greater than 3.28	
5Epilobium coloratum	5		3.3%	FACW	it in neight.	
6	0		0.0%		Five Vegetation Strata:	
7	0		0.0%		Tree - Woody plants excluding woody vines approximately	
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in	
9	0		0.0%		diameter at breast height (DBH).	
10	0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and	
11	0		0.0%		less than 3 in. (7.6 cm) DBH.	
12	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height	
Woody Vine Stratum (Plot size:)	150	= To	otal Cover		Herb stratum – Consists of all herbaceous (non-woody)	
1	0		0.0%		plants, including herbaceous vines, regardless of size, and	
2.	0		0.0%		3 ft (1 m) in height.	
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of	
4	0		0.0%		height.	
5	0		0.0%		Undersets die	
6.	0		0.0%		ryaropnytic Vegetation	
	0	= T	otal Cove	r	Present? Yes \bullet No \bigcirc	
Pemarks: (Include nhoto numbers here or on a senarate she	et)			I		

Wetianu 13	Wet	land	13
------------	-----	------	----

Soil

Profile Desc	ription: (Describe to	the depth	needed to docume	nt the indi	cator or co	onfirm the	absence of indicators.)	
Depth	Matrix		R	edox Featı	ires				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks	
0-6	7.5YR 5/1	75	2.5YR 2.5/4	25	C	M,PL	Silty Clay Loam	20% oxidized rhizosphere	S
6-16	7.5YR 5/1	75	7.5YR 5/8	25	С	М	Silty Clay Loam		
		-			-	-			
			. <u> </u>						
¹ Type: C=Cor	ncentration. D=Depletio	on. RM=Red	uced Matrix, CS=Cov	ered or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M	1=Matrix	
Hydric Soil	Indicators:		,						
	(A1)		Dark Surface	(57)			Indicators for Pro	blematic Hydric Soils":	
	ipedon (A2)		Polvvalue Bel	ow Surface	(S8) (MLRA	147,148)	2 cm Muck (A1	.0) (MLRA 147)	
Black His	tic (A3)		Thin Dark Su	rface (S9) (I	MLRA 147, 1	L48)	Coast Prairie R	edox (A16)	
✓ Hydroger	n Sulfide (A4)		Loamy Gleve	d Matrix (F2) ,	- /	(MLRA 147,148	3) 	
Stratified	Layers (A5)		Depleted Mat	rix (F3)	,		(MI RA 136, 14	dplain Soils (F19) 7)	
2 cm Muc	ck (A10) (LRR N)		Redox Dark S	Surface (F6)			Very Shallow D))ark Surface (TE12)	
	Below Dark Surface (A	A11)	Depleted Dar	k Surface (F	7)		Other (Evolution	in Romarke)	
Thick Da	rk Surface (A12)	,	Redox Depre	ssions (F8)	-			III Kelliarks)	
Sandy Mu	uck Mineral (S1) (LRR	N.	🗌 Iron-Mangan	ese Masses	(F12) (LRR	Ν,			
MLRA 14	7, 148)	,	MLRA 136)						
Sandy Gl	eyed Matrix (S4)		Umbric Surfa	ce (F13) (M	LRA 136, 12	22)	3		
Sandy Re	edox (S5)		Piedmont Flo	odplain Soil	s (F19) (ML	RA 148)	^o Indicators wetland l	of hydrophytic vegetation and hydrology must be present.	
Stripped	Matrix (S6)		Red Parent N	laterial (F21) (MLRA 12	7, 147)	unless	disturbed or problematic.	
Doctrictivo	ever (if cheered).								
Turpo	ayer (il observed):								
Dopth (inc	ahaa).						Hydric Soil Present?	? Yes 🖲 No 🔾	
	cnes):						•		
Remarks:									

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Applicant/Owner: AEP Ohio Transmission Company State: OH Sampling Point: W-MRK-013 UPL							
Investigator(s): M.R.Kline, R.C.Massa Section, Township, Range: S 19 T Center - 14N	R 5						
Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): Convex Slope: 0.5%	/°						
Subregion (LRR or MLRA): LRR N Lat.: 40.565908 Long.: -81.054037 Datum: NA	D83						
Soil Map Unit Name: Or; Orrville silt loam, 0 to 3 percent slopes, occasionally flooded NWI classification: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? Yes \odot No \bigcirc (If no, explain in Remarks.)							
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes • No ·							
Are Vegetation , Soil , or Hydrology anaturally problematic? (If needed, explain any answers in Remarks.)							
Summary of Findings - Attach site map snowing sampling point locations, transects, important feature	s, etc.						
Hydrophytic Vegetation Present? Yes V No O							
Hydric Soil Present? Yes No No Is the Sampled Area Yes No Is the Sampled Area							
Wetland Hydrology Present? Yes No No Within a Wetland?							
Remarks: Upland data point for W-MRK-013. Surrounding land use is agricultural fields.							
Hydrology							
Wetland Hydrology Indicators:							
Primary Indicators (minimum of one required; check all that apply)							
Surface Water (A1)							
High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10)							

Saturation (A3)		Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B)	7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:	_		
Surface Water Present? Yes \bigcirc I	No 🖲	Depth (inches):	
		Depth (inches):	× · · · ·
Saturation Present? Yes O	No 🔍	Depth (inches): Wetlar Depth (inches):	nd Hydrology Present? Yes 🔿 No 🖲
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge)	No () , monitoring	Depth (inches): Wetlar Depth (inches): y well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No 💿
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge)	No no	Depth (inches): Wetlar Depth (inches): y well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No 💿
Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge) Remarks:	No •	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No 💿
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge) Remarks: No source of hydrology.	No (), monitoring	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No 💿
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge) Remarks: No source of hydrology.	No (), monitoring	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No 💿
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge, Remarks: No source of hydrology.	No	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No O
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge) Remarks: No source of hydrology.	No •	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No O
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge) Remarks: No source of hydrology.	No •	Depth (inches): Wetlar Depth (inches): g well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No O
Saturation Present? Yes (includes capillary fringe) Yes Describe Recorded Data (stream gauge, Remarks: No source of hydrology.	No •	Depth (inches): Wetlar Depth (inches): well, aerial photos, previous inspections),	nd Hydrology Present? Yes O No O

Upland 13

Upland 13 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Dominant		Sampling Point: W-MRK-013 UPL
	Absolute	- Species? - Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC: (A)
2	0	0.0%		Total Number of Dominant
3	0	0.0%		Species Across All Strata:(B)
4	0	0.0%		Develop of developed Consider
5	0	0.0%		That Are OBL, FACW, or FAC:0.0%(A/B)
6	0	0.0%		
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
Sanling-Sanling/Shrub Stratum (Plot size:) :	= Total Cover		OBL species $0 \times 1 = 0$
1	0	0.0%		FACW species $0 \times 2 = 0$
2	0	0.0%		FAC species $0 \times 3 = 0$
2	0	0.0%		FACU species $0 \times 4 = 0$
3	0	0.0%		UPL species $100 \times 5 = 500$
4				Column Totals: 100 (A) 500 (B)
5				
7		0.0%		Prevalence Index = B/A = 5.000
0	0			Hydrophytic Vegetation Indicators:
ð		0.0%		Rapid Test for Hydrophytic Vegetation
9				Dominance Test is > 50%
10				Prevalence Index is \leq 3.0 ¹
Shrub Stratum (Plot size:)		= Total Cover		Morphological Adaptations ¹ (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation - (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must be present unless dicturbed or problematic
4	0	0.0%		be present, unless disturbed of problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u>)	:	= Total Cover		regardless of height.
1. Glycine max	100	✔ 100.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and αreater than 3.28 ft (1 m) tall.
2	0	0.0%		Herb stratum – Consists of all herbaceous (non-woody)
3	0	0.0%		plants, regardless of size, and all other plants less than 3.28
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28
5	0	0.0%		n meight.
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		Tree - Woody plants excluding woody vince approximately
8	0	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0	0.0%		diameter at breast height (DBH).
10	0	0.0%		sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
11	0	0.0%		less than 3 in. (7.6 cm) DBH.
12.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size:	100 :	= Total Cover		Vines, approximately 3 to 20 ft (1 to 6 m) in height. Herb stratum – Consists of all berbaceous (non-woody)
	0	0.0%		plants, including herbaceous vines, regardless of size, and
2		0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height
2		0.070		Woody vines - Consists of all woody vince, regardless of
аа		0.0%		height.
4				
D				Hydrophytic
0				Present? Yes No 🔍
Domeska (Include alecte sumbars have a series a				
Remarks: (Include photo numbers here or on a separate she	et.)			

Profile Desci	ription: (D	escribe to	the depth	needed to documen	t the indic	cator or co	onfirm the	absence of indicators.)	
Depth	Depth Matrix		Redox Features			1 2	- Tutuu		
(inches)		(moist)	100	Color (moist)	%		LOC ²	Cilt Loom	Remarks
0-16	IUYR	4/4	100					Slit Loam	
					-				
-									
								·	
	<u>.</u>	-			-				
¹ Type: C=Con	centration.	D=Depletio	n. RM=Red	uced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains ² Loc	ation: PL=Pore Lining. M=M	latrix
Hydric Soil 1	Indicators							Indicators for Proble	matic Hydric Soils ³ :
Histosol (A1)			Dark Surface (S7)			2 cm Muck (A10)	(MLRA 147)
Histic Epi	pedon (A2)			Polyvalue Belo	w Surface ((S8) (MLRA	147,148)	Coast Prairie Redo	x (A16)
Black Hist	tic (A3)			Thin Dark Surf	ace (S9) (N	1LRA 147, 1	148)	(MLRA 147,148)	(A10)
Hydroger	n Sulfide (A4	+)		Loamy Gleyed	Matrix (F2))		Piedmont Floodpla	ain Soils (E19)
Stratified	Layers (A5)	1		Depleted Matri	x (F3)			(MLRA 136, 147)	
2 cm Muc	:k (A10) (LR	R N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Depleted	Below Dark	Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in)	Remarks)
Thick Dar	k Surface (/	A12)		Redox Depress	ions (F8)				
Sandy Mu	uck Mineral	(S1) (LRR N	١.	Iron-Manganes	e Masses ((F12) (LRR	Ν,		
MLRA 142	7, 148)		,	MLRA 136)					
Sandy Gle	eyed Matrix	(S4)		Umbric Surfac	e (F13) (MI	LRA 136, 12	22)	2	
Sandy Re	dox (S5)			Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	³ Indicators of h	hydrophytic vegetation and
Stripped	Matrix (S6)			Red Parent Ma	terial (F21) (MLRA 12	7, 147)	unless dis	turbed or problematic.
Restrictive L	ayer (if ob	served):							
Туре:								Ukuduja Caji Duasant2	M 0 N 0
Depth (inc	:hes):							Hydric Soli Present?	
Remarks:									





Wetland 13



and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 13	
Date:	
November 7, 2018	
Description:	
PFO	
Modified Category 2	
Facing North	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 13	
Date:	
November 7, 2018	
Description:	
PFO	
Modified Category 2	
Facing South	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 13	
Date:	
November 7, 2018	ANSING AND
Description:	
PFO	
Modified Category 2	
Soil Pit	

Wetland 14

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138	kV Project	City/County: Carroll	Sampling Date: 08-Nov-18
Applicant/Owner: AEP Ohio Transr	nission Company	State: OH Samplin	g Point: W-MRK-014 PEM
Investigator(s): M.R.Kline, R.C.Ma	ssa	Section, Township, Range: S	19 T Center - 14N R 5W
Landform (hillslope, terrace, etc.):	Floodplain	 Local relief (concave, convex, n	None): concave Slope: 0.5% / 0.3 Slope: 0.5%
Subregion (LRR or MLRA): LRR	N Lat.:	40.563439 Lon	g.: -81.050747 Datum: NAD83
Soil Map Unit Name: Or; Orrville	silt loam, 0 to 3 percent slopes, oc	casionally flooded NWI of	classification: N/A
Are climatic/hydrologic conditions	on the site typical for this time of y	/ear? Yes 🖲 No 🔾 (If no,	explain in Remarks.)
Are Vegetation, Soil	, or Hydrology 🗌 significan	tly disturbed? Are "Normal	Circumstances" present? Yes • No ·
Are Vegetation	, or Hydrology naturally	problematic? (If needed, e	explain any answers in Remarks.)
	, e,e.e.g,		
Summary of Findings - A	Attach site map showing	sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes $ullet$ No $igcap$		
Hydric Soil Present?	Yes $ullet$ No $igcap$	Is the Sampled Area	
Wetland Hydrology Present?	Yes $ullet$ No $igcap$	within a Wetland?	
Wetland is located on the Wetland is open ended outside the Wetland is ope	e noodplain of watercourse S-MRK e current study area and the bound	-013. The wetland is influenced dary follows edge of depression.	by seasonal flooding and surface runoff.
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plan	its (B14)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)		Udor (CI)	Drainage Patterns (B10)
Water Marks (B1)		TELES AIDING LIVING ROOLS (CS)	
		red Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Redu	iced Iron (C4) iction in Tilled Soils (C6)	Dry Season Water Table (C2) Cravfish Burrows (C8)
Sediment Deposits (B2) Drift deposits (B3)	Recent Iron Redu	iced Iron (C4) iction in Tilled Soils (C6) e (C7)	 Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
 Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) 	Recent Iron Redu	iced Iron (C4) iction in Tilled Soils (C6) e (C7) Remarks)	 Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
 Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) 	Recent Iron Redu Thin Muck Surfac Other (Explain in	iced Iron (C4) iction in Tilled Soils (C6) e (C7) Remarks)	 Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2)

			Other (Explain in Remarks)			
Iron Deposits (B5)					Geomorphic Position (D2)	
Inundation Visible on Aerial Imagery (B7)					Shallow Aquitard (D3)	
Water-Stained Leaves (B	9)				Microtopographic Relief (D4)	
Aquatic Fauna (B13)					FAC-neutral Test (D5)	
Field Observations:	0					
Surface Water Present?	Yes 🖲	No 🔾	Depth (inches):	1	-	
Water Table Present?	Yes 🖲	No \bigcirc	Depth (inches):	0		
Saturation Present? (includes capillary fringe)	Yes 🖲	No \bigcirc	Depth (inches):	0	Wetland Hydrology Present? Yes 🔍 NO 🔾	
Describe Recorded Data (s	stream gaug	ge, monito	oring well, aerial photos, p	previous ins	spections), if available:	
Remarks:						

Source of hydrology is surface runoff and seasonal flooding.

Wetland 14 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Dominant		Sampling Point: <u>W-MRK-014 PEM</u>
(Plot size:	Absolute % Cover	Rel.Strat.	Indicator Status	Dominance Test worksheet:
	0		otatao	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, of FAC: (A)
2	0	0.0%		Total Number of Dominant
3	0	0.0%		Species Across All Strata:(B)
4	0			Percent of dominant Species
5	0	0.0%		That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
0	0	0.0%		Durana lan an Tandara una disk a sta
2	0	0.0%		Total % Cover of: Multiply by:
8	0	- Total Cove	r	
Sapling-Sapling/Shrub Stratum (Plot size:)			•	$\frac{10}{10} \times 1 = 10$
1	0	0.0%		FACW spectes 20 x $z = 40$
2	0	0.0%		FAC species $110 \times 3 = 330$
3	0	0.0%		FACU species $0 \times 4 = 0$
4	0	0.0%		UPL species $0 \times 5 = 0$
5	0	0.0%		Column Totals: <u>140</u> (A) <u>380</u> (B)
6	0	0.0%		Prevalence Index = $B/A = 2.714$
7	0	0.0%		Hydronhytic Vegetation Indicators:
8	0	0.0%		Ranid Test for Hydronhytic Vegetation
9	0	0.0%		\checkmark Dominance Test is > 50%
10	0	0.0%		\checkmark Dominance rest is > 50.70 \checkmark Drovalonce Index is < 20.1
Shruh Stratum (Plot size)	0 :	= Total Cove	r	Morphological Adaptations 1 (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7.	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: 5' radius)	0 :	= Total Cove	r	regardless of height.
1 Echinochloa crus-galli	100	✓ 71.4%	FAC	Sapling/shrub stratum – Consists of woody plants, excluding
2 Juncus effusus	10	7.1%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3 Scirpus atrovirens	10	7.1%	OBL	plants, regardless of size, and all other plants less than 3.28
4 Eupatorium perfoliatum	10	7.1%	FACW	Woody vines – Consists of all woody vines greater than 3.28
5 Rumex crispus	10	7.1%	FAC	ft in height.
6	0	0.0%		Five Vegetation Strates
7.	0	0.0%		
8.	0	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9.	0	0.0%		diameter at breast height (DBH).
10	0	0.0%		Sapling stratum – Consists of woody plants, excluding
11	0	0.0%		less than 3 in. (7.6 cm) DBH.
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
Weady Vine Stratum (Plot size:	140 :	= Total Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
	0	0.0%		plants, including herbaceous vines, regardless of size, and
1 2				woody species, except woody vines, less than approximately
2.	0			Woody vince Consists of all woody vince recordings of
J	0			height.
5	<u> </u>			Hydrophytic
ΰ	0			Present? Yes No
Demostra (Include abete numbers bergen en en et al.			51	

marks: (Include photo numbers here or on a separate sheet.)

	W	etla	nd	14
--	---	------	----	----

Soil

Sampling Point: W-MRK-014 PEM

Profile Descr	iption: (Describe to	the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indicators.)	
Depth	h <u>Matrix</u>		Re	dox Featı	ures			
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc ²	Texture	Remarks
0-18	5Y 4/1	75	7.5YR 5/4	25	C	M,PL	Silty Clay Loam	
		-		_				
				-			,,	
	<u></u>	·					p7	
¹ Type: C=Con	centration. D=Depletic	on. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ted Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=1	Matrix
Hydric Soil I	indicators:						Indicators for Proble	ematic Hydric Soils ³ :
Histosol (A1)		Dark Surface (S7)				
🗌 Histic Epi	pedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)		(MERA 147)
Black Hist	ic (A3)		Thin Dark Surf	ace (S9) (I	MLRA 147,	148)	(MI RA 147 148)	ox (A16)
Hydrogen	Sulfide (A4)		Loamy Gleyed	Matrix (F2	.)			ain Soile (F19)
Stratified	Layers (A5)		✓ Depleted Matri	x (F3)			(MLRA 136, 147)	
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	irface (F6)			Very Shallow Dar	k Surface (TF12)
Depleted	Below Dark Surface (A	11)	Depleted Dark Surface (F7)				Other (Explain in	Remarks)
Thick Dar	k Surface (A12)		Redox Depressions (F8)					
Sandy Mu MLRA 147	ick Mineral (S1) (LRR N 7, 148)	Ν,	Iron-Manganes MLRA 136)	se Masses	(F12) (LRR	Ν,		
Sandy Gle	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 1	22)	-	
Sandy Re	dox (S5)		Piedmont Floodplain Soils (F19) (MLRA 148)			RA 148)	³ Indicators of	hydrophytic vegetation and
Stripped I	Matrix (S6)		Red Parent Material (F21) (MLRA 127, 147)			7, 147)	unless disturbed or problematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	hes):						Hydric Soll Present?	Yes 🔍 No 🖯
Remarks:								

Upland 14, 15

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll		Sampling Date: 08-Nov-18			
Applicant/Owner: AEP Ohio Transmission Company	State: OH S	Sampling Point:	W-MRK-014-015 UPL			
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Ra	nge: S 19 T	Center - 14N R 5W			
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): convex	Slope: <u>0.5%</u> / <u>0.3</u> °			
Subregion (LRR or MLRA): LRR N Lat.:	40.563231	Long.: -81.050304	Datum: NAD83			
Soil Map Unit Name: Or; Orrville silt loam, 0 to 3 percent slopes, occ	asionally flooded	NWI classification:	I/A			
Are climatic/hydrologic conditions on the site typical for this time of y	ear? Yes 🖲 No 🔾	(If no, explain in Rema	rks.)			
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant	ly disturbed? Are "	Normal Circumstances"	present? Yes $ullet$ No $igodom$			
Are Vegetation . , Soil , or Hydrology naturally p	problematic? (If ne	eeded, explain any answ	ers in Remarks.)			
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.						

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes O Yes O Yes O	No	Is the Sampled Area within a Wetland?	Yes 🔿 No 🖲
Remarks: Upland data point for W-MRK-014 a	nd W-MRK	-015. Surrounding land use is	agriculture.	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes \bigcirc No \bigcirc	Depth (inches):	
Water Table Present? Yes O No O	Depth (inches):	
Saturation Present? (includes capillary fringe) Yes O No •	Depth (inches):	irology Present? Tes 🗢 No 😇
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspections), if ava	ilable:
Remarks:		
No source of hydrology.		

Upland 14, 15 VEGETATION (Five/Four Strata)- Use scientific names of plants.

VEGETATION (FIVE/Four Strata)- Use scien		Dominant	ants.	Sampling Point: <u>W-MRK-014-015 UPL</u>
	Absolute	-Species? - Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2		0.0%		Total Number of Dominant
3	0	0.0%		Species Across All Strata: (B)
	0	0.0%		Percent of dominant Species
6	0	0.0%		That Are OBL, FACW, or FAC:(A/B)
7.	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0 =	= Total Cove	r	OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot Size:)	0	0.0%		FACW species $0 \times 2 = 0$
1		0.0%		FAC species $0 \times 3 = 0$
2		0.0%		FACU species <u>135</u> x 4 = <u>540</u>
3	0	0.0%		UPL species $0 \times 5 = 0$
5	0	0.0%		Column Totals:
6	0	0.0%		Prevalence Index – $B/\Lambda = 4.000$
7	0	0.0%		
8.	0	0.0%		Hydrophytic Vegetation Indicators:
9	0	0.0%		
10	0	0.0%		$\square \text{ Dominance rest is > 50\%}$
Shruh Stratum (Plot size:	0 =	= Total Cove	r	$\square \text{ Prevalence findex is } 23.0$
1	0	0.0%		data in Remarks or on a separate sheet)
2.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3.	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH)
Herb Stratum (Plot size: <u>5' radius</u>)		= Total Cove	r	regardless of height.
1. Phleum pratense	100	✔ 74.1%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Trifolium repens	20	14.8%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3. Taraxacum officinale	15	11.1%	FACU	plants, regardless of size, and all other plants less than 3.28 ft tall.
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0	0.0%		
6				Five Vegetation Strata:
/				Tree - Woody plants, excluding woody vines, approximately
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
12				Shrub stratum – Consists of woody plants, excluding woody
	135 =	= Total Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. and
1				woody species, except woody vines, less than approximately
2				
3	0	0.0%		height.
	0	0.070		
0	0	0.0%		Hydrophytic
U	0	= Total Cove	r	Present? Yes O No •

Remarks: (Include photo numbers here or on a separate sheet.)
Depth	Matrix		Red	lox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-16	10YR 4/4	100					Silty Clay Loam	
					·			
			·					
			u	-				
				-				
T 0.0								
Type: C=Con	centration. D=Depletic	on. RM=Redu	iced Matrix, CS=Cover	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=N	latrix
Hydric Soil 1	Indicators:		_				Indicators for Proble	ematic Hydric Soils ³ :
Histosol ((A1)		Dark Surface (57)			2 cm Muck (A10)	(MLRA 147)
Histic Epi	pedon (A2)		Polyvalue Belov	v Surface (S8) (MLRA	147,148)		(
Black Hist	tic (A3)		Thin Dark Surfa	ace (S9) (M	ILRA 147, 1	148)	(MLRA 147.148)	X (A16)
Hydroger	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)				ain Soile (F10)
Stratified	Layers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	
2 cm Muc	:k (A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Darl	Surface (TE12)
Depleted	Below Dark Surface (A	(11)	Depleted Dark	Surface (F7	7)		Other (Evaluin in	Romarka)
Thick Dar	rk Surface (A12)	/	Redox Depress	ions (F8)	-			Refild(RS)
Sandy Mi	uck Mineral (S1) (LPP N	A.	Iron-Manganes	e Masses (F12) (LRR	N,		
MLRA 142	7, 148)	ν,	MLRA 136)		, (,		
Sandy Gle	eved Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	22)	_	
Sandy Re	edox (S5)		Piedmont Flood	lplain Soils	(F19) (ML	RA 148)	³ Indicators of	hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent Ma	torial (F21)	(MI PA 12	7 147)	wetland hyd	Irology must be present, sturbed or problematic
						, 11/)		
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	thes):						Hydric Soil Present?	Yes 🔾 🛛 No 🔍
Pemarke:	/							
Kemarks.								







and of highest quality



Client Name:

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

Wetland 14	
Date:	
November 8, 2018	
Description:	
PEM	
Category 1	
Facing North	



AEP



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project







Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 14	
Date:	
November 8, 2018	
Description:	
PEM	
Category 1	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll	Sampling Date: 08-Nov-18					
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point:	W-MRK-015 PSS					
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 19	T Center - 14N R 5W					
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none):	concave Slope: <u>1.0%</u> / <u>0.6</u> °					
Subregion (LRR or MLRA): LRR N	Lat.: 40.563113 Long.: -81	.049827 Datum: NAD83					
Soil Map Unit Name: Or; Orrville silt loam, 0 to 3 percent slope	es, occasionally flooded NWI classifica	ation: N/A					
Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) 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 	Is the Sampled Area Yes ④ within a Wetland?	No O					
Remarks: This PSS wetland is located on the floodplain of watercourse S-MRK-013. The wetland is influenced by seasonal flooding and surface runoff but is primarily influenced by stream conditions. Wetland boundary follows edge of depression and stream banks.							
Hydrology							
Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that a	_ <u>Seconda</u>	ry Indicators (minimum of two required)					

Primary Indicators (minimu	m of one	required;	check all that apply)			Surface Soil Cracks (B6)		
Surface Water (A1)			True Aquatic Plants (B14)			Sparsely Vegetated Concave Surface (B8)		
✓ High Water Table (A2)			Hydrogen Sulfide Odor (C1)			Drainage Patterns (B10)		
Saturation (A3)			Oxidized Rhizosphere	s along Living	Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)			Presence of Reduced	Iron (C4)		Dry Season Water Table (C2)		
Sediment Deposits (B2)			Recent Iron Reduction	n in Tilled Soils	s (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)			Thin Muck Surface (C	7)		Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)			Other (Explain in Rem	narks)		Stunted or Stressed Plants (D1)		
Iron Deposits (B5)						Geomorphic Position (D2)		
Inundation Visible on Aeria	I Imagery ((B7)				Shallow Aquitard (D3)		
Water-Stained Leaves (B9)						Microtopographic Relief (D4)		
Aquatic Fauna (B13)						✓ FAC-neutral Test (D5)		
Field Observations:	-	_						
Surface Water Present?	Yes 🔿	No 🖲	Depth (inches):					
Water Table Present?	Yes 🖲	No \bigcirc	Depth (inches):	6				
Saturation Present? (includes capillary fringe)	Yes 🖲	No \bigcirc	Depth (inches):	6	Wetland Hydr	ology Present? Tes \odot NO \bigcirc		
Describe Recorded Data (str	eam gaug	ge, monito	ring well, aerial photos,	previous insp	pections), if avail	able:		
Remarks:								
Source of hydrology is surfa	ce runoff	and seaso	nal flooding.					
			inal nooding.					

Wetland 15 VEGETATION (Five/Four Strata)- Use scientific names of plants.

		Domi	nant	Sampling Point: <u>W-MRK-015 PSS</u>		
(Plot size:	Absolute % Cover	Rel.St	trat. Indic	ator Dominance Test worksheet:		
Tree Stratum (Flot size)	0		0%	Number of Dominant Species		
1	0		.0%			
2			.0%	Total Number of Dominant		
3			.0%	Species Across All Strata: (B)		
4	0		.0%	Percent of dominant Species		
6	0		.0%	That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)		
7	0		.0%	 Prevalence Index worksheet:		
0	0		.0%	Total % Cover of: Multiply by:		
0	0 :	= Total	Cover	$- 0 \text{Bl species} \qquad 40 \qquad \text{x } 1 = 40$		
Sapling-Sapling/Shrub Stratum (Plot size: 15' radius)			EACW species $110 \times 2 = 220$		
1. Salix nigra	40	50	0.0% OBL	$- \begin{bmatrix} 110 \\ 110 \end{bmatrix} \times \begin{bmatrix} 2 \\ - \end{bmatrix} = \begin{bmatrix} 220 \\ - \end{bmatrix}$		
2. Salix discolor	40	50	0.0% FACV			
3	0	0	.0%	$- \qquad \qquad$		
4	0	0	.0%	- UPL species - x 5 = - 0		
5	0	0	.0%	- Column Totals: 150 (A) 260 (B)		
6	0	0	.0%	Prevalence Index = B/A = <u>1.733</u>		
7	0	0	.0%	Hydrophytic Vegetation Indicators:		
8	0	0	.0%	Rapid Test for Hydrophytic Vegetation		
9	0	0	.0%	─ Dominance Test is > 50%		
10	0	0	.0%	- Prevalence Index is \leq 3.0 ¹		
Shrub Stratum (Plot size:)	80:	= Total	Cover	Morphological Adaptations ¹ (Provide supporting		
1	0	0	.0%	data in Remarks or on a separate sheet)		
2.	0	0	.0%	Problematic Hydrophytic Vegetation ¹ (Explain)		
3	0	0	.0%	¹ Indicators of hydric soil and wetland hydrology must		
4	0	0	.0%	be present, unless disturbed or problematic.		
5.	0	0	.0%	Definition of Vegetation Strata:		
6.	0	0	.0%	Four Vegetation Strata:		
7	0	0	.0%	Tree stratum – Consists of woody plants, excluding vines, 3		
Horb Stratum (Plot size: 5' radius)	0	= Total	Cover	regardless of height.		
1 Pop palustric	70	✓ 10	0.0% FACV	Sapling/shrub stratum – Consists of woody plants, excluding		
1. Fod parasers			0%	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Calex sp.			.0%	plants, regardless of size, and all other plants less than 3.28		
3	0		.0%	— If tall. Woody vines – Consists of all woody vines greater than 3.28		
4 5			0%	ft in height.		
5			0%	—		
7			0%	— Five Vegetation Strata:		
Q	- <u> </u>		.0%	Tree - Woody plants, excluding woody vines, approximately		
0			0%	diameter at breast height (DBH).		
খ 10				Sapling stratum – Consists of woody plants, excluding		
11				woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
12	0			Shrub stratum – Consists of woody plants, excluding woody		
12		= Total	Cover	vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody)		
1	0		.0%	woody species, except woody vines, less than approximately		
2	0		.0%	3 ft (1 m) in height.		
3	0		.0%	Woody vines – Consists of all woody vines, regardless of		
4	0		.0%			
5	0		.0%	Hydrophytic		
6	0	0	.0%	Vegetation		
	0	= Total	Cover			
Remarks: (Include photo numbers here or on a separate she	et)					

Absolute cover of Carex sp is 25%.

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Sampling Point: W-MRK-015 PSS

Soil							Sampling Point: W-MF	RK-015 PSS	
Profile Desc	ription: (Describe to	the depth	needed to documer	t the indi	cator or co	onfirm the	absence of indicators.)		
Depth Matrix Redox Features									
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks	
0-16	10YR 4/2	75	7.5YR 5/6	25	C	M	Silty Clay Loam		
							,,		
							. <u> </u>		
¹ Type: C=Cor	ncentration. D=Depletic	on. RM=Red	uced Matrix, CS=Cove	red or Coat	ed Sand Gr	rains ² Loc	ation: PL=Pore Lining. M=N	fatrix	
Hydric Soil	Indicators:						Indicators for Proble	matic Hydric Soils ³ :	
Histosol	(A1)		Dark Surface	(S7)					
Histic Epi	ipedon (A2)		Polyvalue Belo	w Surface	(S8) (MLRA	147,148)		(MERA 147)	
Black His	tic (A3)		Thin Dark Sur	face (S9) (I	MLRA 147,	148)	Coast Prairie Redo (MI RA 147 148)	ox (A16)	
Hydroger	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)			ain Soils (F19)	
Stratified	Layers (A5)		Depleted Matr	ix (F3)			(MLRA 136, 147)		
2 cm Muc	ck (A10) (LRR N)		Redox Dark Surface (F6)				Very Shallow Darl	k Surface (TF12)	
Depleted	Below Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in	Remarks)	
Thick Da	rk Surface (A12)		Redox Depressions (F8)						
Sandy M	uck Mineral (S1) (LRR N	٨,	Iron-Manganese Masses (F12) (LRR N, MLRA 136)			N,			
MLRA 14	7, 148)		Umbric Surface (F13) (MLRA 136, 122)						
Sandy G	eyed Matrix (S4)		Diadmont Electrolic Cite (E10) (MLRA 148)				³ Indicators of hydrophytic vegetation and		
	Matrix (SG)						wetland hyd	Irology must be present,	
				alenai (F21) (MLKA 12	(7, 147)	uniess disturbed of problematic.		
Restrictive L	ayer (if observed):								
Туре:									
Depth (ind	ches):						Hydric Soil Present?	Yes \bullet No \bigcirc	
Remarks:									

Upland 14, 15

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll		Sampling Date: 08-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH S	Sampling Point:	W-MRK-014-015 UPL
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Ra	nge: S 19 T	Center - 14N R 5W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, co	onvex, none): convex	Slope: <u>0.5%</u> / <u>0.3</u> °
Subregion (LRR or MLRA): LRR N Lat.:	40.563231	Long.: -81.050304	Datum: NAD83
Soil Map Unit Name: Or; Orrville silt loam, 0 to 3 percent slopes, occ	asionally flooded	NWI classification:	I/A
Are climatic/hydrologic conditions on the site typical for this time of y	ear? Yes 🖲 No 🔾	(If no, explain in Rema	rks.)
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🗌 significant	ly disturbed? Are "	Normal Circumstances"	present? Yes $ullet$ No $igodom$
Are Vegetation . , Soil , or Hydrology naturally p	problematic? (If ne	eeded, explain any answ	ers in Remarks.)
Summary of Findings - Attach site map showing s	sampling point lo	cations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes O Yes O Yes O	No	Is the Sampled Area within a Wetland?	Yes 🔿 No 🖲
Remarks: Upland data point for W-MRK-014 a	nd W-MRK	-015. Surrounding land use is	agriculture.	

Hydrology

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required;	check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes \bigcirc No \bigcirc	Depth (inches):	
Water Table Present? Yes O No O	Depth (inches):	
Saturation Present? (includes capillary fringe) Yes O No •	Depth (inches):	irology Present? Tes 🗢 No 😇
Describe Recorded Data (stream gauge, monito	ring well, aerial photos, previous inspections), if ava	ilable:
Remarks:		
No source of hydrology.		

Upland 14, 15 VEGETATION (Five/Four Strata)- Use scientific names of plants.

VEGETATION (FIVE/Four Strata)- Use scien		Dominant	ants.	Sampling Point: W-MRK-014-015 UPL
	Absolute	-Species? - Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3	0	0.0%		Species Across All Strata:(B)
5	0	0.0%		Percent of dominant Species
6	0	0.0%		That Are OBL, FACW, or FAC:(A/B)
7.	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0 =	= Total Cove	-	OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot Size:)	0	0.0%		FACW species $0 \times 2 = 0$
1				FAC species $0 \times 3 = 0$
2		0.0%		FACU species <u>135</u> x 4 = <u>540</u>
3	0	0.0%		UPL species $0 \times 5 = 0$
5	0	0.0%		Column Totals:(A)(B)
6	0	0.0%		Prevalence Index = $B/\Delta = 4.000$
7	0	0.0%		
8.	0	0.0%		Hydrophytic Vegetation Indicators:
9	0	0.0%		
10	0	0.0%		$\square \text{ Dominance rest is > 50%}$
Shrub Stratum (Plot size:		= Total Cove	-	Mornhological Adaptations ¹ (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2.	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3.	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in (7.6 cm) or more in diameter at breast height (DBH)
Herb Stratum (Plot size: <u>5' radius</u>)		= Total Cove	r	regardless of height.
1. Phleum pratense	100	✔ 74.1%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Trifolium repens	20	14.8%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3. Taraxacum officinale	15	11.1%	FACU	plants, regardless of size, and all other plants less than 3.28 ft tall.
4	0	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0	0.0%		
6	0			Five Vegetation Strata:
7	0			Tree - Woody plants, excluding woody vines, approximately
8				20 tt (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
12				Shrub stratum – Consists of woody plants, excluding woody
	135 =	= Total Cove		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size. and
1				woody species, except woody vines, less than approximately
2	0			on ((m) m neight. Maaduuliaas Consists of all woodbuilt and a statistication of the st
3	0			height.
4	0			
D.				Hydrophytic
0	0	= Total Cove		Present? Yes No 🔍
			•	

Remarks: (Include photo numbers here or on a separate sheet.)

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

Depth	Matrix		Red	lox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks
0-16	10YR 4/4	100					Silty Clay Loam	
					·			
			·					
			u	-				
				-				
T 0.0								
Type: C=Con	centration. D=Depletic	on. RM=Redu	iced Matrix, CS=Cover	ed or Coate	ed Sand Gr	ains ² Loca	ation: PL=Pore Lining. M=N	latrix
Hydric Soil 1	Indicators:		_				Indicators for Proble	ematic Hydric Soils ³ :
Histosol ((A1)		Dark Surface (57)			2 cm Muck (A10)	(MLRA 147)
Histic Epi	pedon (A2)		Polyvalue Belov	v Surface (S8) (MLRA	147,148)		(
Black Hist	tic (A3)		Thin Dark Surfa	ace (S9) (M	ILRA 147, 1	148)	(MLRA 147.148)	X (A16)
Hydroger	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)				ain Soile (F10)
Stratified	Layers (A5)		Depleted Matrix	(F3)			(MLRA 136, 147)	
2 cm Muc	:k (A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Darl	Surface (TE12)
Depleted	Below Dark Surface (A	(11)	Depleted Dark	Surface (F7	7)		Other (Evaluin in	Romarka)
Thick Dar	rk Surface (A12)	/	Redox Depress	ions (F8)	-			Refild(RS)
Sandy Mi	uck Mineral (S1) (LPP N	A.	Iron-Manganes	e Masses (F12) (LRR	N,		
MLRA 142	7, 148)	ν,	MLRA 136)		, (,		
Sandy Gle	eved Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	22)	_	
Sandy Re	edox (S5)		Piedmont Flood	lplain Soils	(F19) (ML	RA 148)	³ Indicators of	hydrophytic vegetation and
Stripped	Matrix (S6)		Red Parent Ma	torial (F21)	(MI PA 12	7 147)	wetland hyd	Irology must be present, sturbed or problematic
						, 11/)		
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	thes):						Hydric Soil Present?	Yes 🔾 🛛 No 🔍
Pemarke:	/							
Kemarks.								







and of highest quality



Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 15	
Date:	
November 8, 2018	
Description:	
PSS	
Modified Category 2	
Facing North	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Project No. 60582598

C./.

Wetland 15	
Date:	
November 8, 2018	
Description:	
PSS	
Modified Category 2	
Facing South	





Client Name:

AEP

Site Location:

Gable-Carrollton 138 kV Transmission Line Project

Wetland 15	
Date:	
November 8, 2018	
Description:	
PSS	
Modified Category 2	
Soil Pit	

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable 138 kV Project	City/County: Carroll Sampling Date: 08-Nov-18
Applicant/Owner: AEP Ohio Transmission Company	State: OH Sampling Point: W-MRK-016 PEM
Investigator(s): M.R.Kline, R.C.Massa	Section, Township, Range: S 19 T Center - 14N R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): concave Slope:0 /1.1 °
Subregion (LRR or MLRA): LRR N Lat.:	40.561805 Long.: -81.047822 Datum: NAD83
Soil Map Unit Name: WmC; Westmoreland-Coshocton silt loams, 8 to	D 15 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y Are Vegetation , Soil , or Hydrology significant Are Vegetation , Soil , or Hydrology naturally p Summary of Findings - Attach site map showing s Hydrophytic Vegetation Present? Yes No	ear? Yes • No · (If no, explain in Remarks.) Ity disturbed? Are "Normal Circumstances" present? Yes • No · problematic? (If needed, explain any answers in Remarks.) sampling point locations, transects, important features, etc.
Hydric Soil Present?Yes Yes No Yes No No OWetland Hydrology Present?Yes Yes No O	Is the Sampled Area Yes \bullet No \bigcirc within a Wetland?
Remarks: This PEM begins at a hillside spring seep within an agricultural field. upland forest surrounded by agricultural fields. Wetland boundary for	Water follows a slight depression down the slope and dissipates into a small llows edge of depression.

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of	no roquirod:	check all that apply)	
	ne required,		
			Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		Oxidized Rhizospheres along Living Roots (C	3) Moss Trim Lines (B16)
Water Marks (B1)		Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)		Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Imag	ery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes) No 🖲	Depth (inches): 0.5	
Water Table Present? Yes	● No ○	Depth (inches): 6	
Saturation Present? (includes capillary fringe) Yes	• No ()	Wetla Depth (inches):0	and Hydrology Present? Yes \odot NO \bigcirc
Describe Recorded Data (stream g	gauge, monito	ring well, aerial photos, previous inspections), if available:
Remarks:			
Source of hydrology is spring see	os.		
,			

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

		Dominant		Sampling Point: <u>W-MRK-016 PEM</u>
(Districe)	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	-70 COVEI	Cover	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: <u>2</u> (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)
6				.
/				Prevalence Index worksheet:
8				
Sapling-Sapling/Shrub Stratum (Plot size:)	= Total Cover		OBL species $10 \times 1 = 10$
1	0	0.0%		FACW species $35 \times 2 = 70$
2.	0	0.0%		FAC species $110 \times 3 = 330$
3	0	0.0%	87 	FACU species $0 \times 4 = 0$
4	0	0.0%		UPL species $0 \times 5 = 0$
5.	0	0.0%		Column Totals: <u>155</u> (A) <u>410</u> (B)
6.	0	0.0%		Prevalence Index = $B/A = 2.645$
7	0	0.0%		Hudronhutic Vogotation Indicatore
8	0	0.0%		Panid Test for Hydronbytic Vegetation
9	0	0.0%		
10.	0	0.0%		\checkmark Dominance test is > 50%
Shruh Stratum (Plot size:	0 =	= Total Cover		Prevalence Index is \$5.0
1	0	0.0%		data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
3	0	0.0%		¹ Indicators of hydric soil and wetland hydrology must
4.	0	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
(Plot size: 5' radius)	0 =	= Total Cover		regardless of height.
Herb Stratum (1100 size: <u>5 radius</u>)	60	38 7%	FAC	Sapling/shrub stratum – Consists of woody plants, excluding
Echinachlas arus colli	50	 ✓ 30.7 % ✓ 37.3% 	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
	30	19.4%	FACW	plants, regardless of size, and all other plants less than 3.28
Cyperus esculentus Scirpus atrovirens	10	6.5%	OBL	ft tall. Woody vines – Consists of all woody vines greater than 3.28
 Scipus autoviteris Eurotorium perfoliatum 		3 2%	FACW	ft in height.
6		0.0%		
7		0.0%		Five Vegetation Strata:
Q		0.0%		Tree - Woody plants, excluding woody vines, approximately
0				diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
11				less than 3 in. (7.6 cm) DBH.
12				Shrub stratum – Consists of woody plants, excluding woody
	155 =	= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1	U	0.0%		woody species, except woody vines, less than approximately
2	0			3π (1 m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of height.
4	0	0.0%		
5	0	□0.0%		Hydrophytic
6	0	0.0%		Vegetation Present? Yes I No
	0	= Total Cove	r	
Remarks: (Include photo numbers here or on a separate she	et.)			

*Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS. US Army Corps of Engineers

1100000 20	Wetla	ind 16
------------	-------	--------

Soil

(in all)	Matrix		Re	dox Featu	res				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe ¹	Loc ²	Texture	Remarks	
0-16	5Y 5/1	80	10YR 5/6	20	C	М	Clay Loam		
				L					
			. <u> </u>						
¹ Type: C=Con	centration. D=Depletio	n. RM=Redi	iced Matrix, CS=Cove	red or Coate	ed Sand Gr	ains ² l oca	ation: PI =Pore Lining, M=	Matrix	
Hydric Soil 1	Indicators:								
	(A1)		Dark Surface	(57)			Indicators for Probl	ematic Hydric Soils ⁹ :	
Histic Eni	inedon (A2)			w Surface (58) (MI RA	147 148)	2 cm Muck (A10)	(MLRA 147)	
Black His	tic (A3)		Thin Dark Sur	face (S9) (M	ILRA 147, 1	48)	Coast Prairie Red	ox (A16)	
	n Sulfide (A4)			Matrix (F2)			(MLRA 147,148)		
Stratified	Lavers (A5)		Depleted Matr	ix (F3)			Piedmont Floodp	lain Soils (F19)	
2 cm Muc	ck (A10) (LRR N)		Redox Dark Si	urface (F6)				k Surface (TE12)	
	Below Dark Surface (A	11)	Depleted Dark	Surface (F)	7)			R Sullace (TF12)	
	rk Surface (A12)		Redox Depres	sions (F8)	,		Uther (Explain in	Remarks)	
Sandy Mi	uck Mineral (S1) (LRR N	ı	Iron-Mangane	se Masses (F12) (LRR	Ν,			
MLRA 14	7, 148)	•,	MLRA 136)	·	, (
Sandy Gl	eyed Matrix (S4)		Umbric Surfac	e (F13) (ML	RA 136, 12	2)	2		
Sandy Re	edox (S5)		Piedmont Floo	dplain Soils	(F19) (ML	RA 148)	³ Indicators of wetland by	hydrophytic vegetation and	
Stripped	Matrix (S6)		Red Parent Ma	aterial (F21)	(MLRA 12	7, 147)	unless di	sturbed or problematic.	
Doctriction	.ayer (if observed):								
							Hydric Soil Present?	Yes 🔍 No 🔿	
Type:									
Type: Depth (inc	ches):						injune bon i recent.		
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Type: Depth (inc	ches):								
Type: Depth (inc	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Type: Depth (inc	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								
Restrictive L Type: Depth (inc Remarks:	ches):								

This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

5/28/2021 1:49:43 PM

in

Case No(s). 21-0554-EL-BLN

Summary: Notice Notice LON application for the Tidd-Sunnyside 138 kV Transmission Line Rebuild Project 401-600 B electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.