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## APPENDIX A

**PROJECT WETLAND TABLE** 

	А	В	С	D	Е	F	G	Н	I	J	K	L	М	N
1		Loca	tion					ORAM	Nearest				Propose	d 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) <sup>2</sup>	Permanent Impact Area (acre)
3	Wetland 001	39.768556	-82.097593	No	PEM	0.21	26	1	TBD	NA	TBD	TBD	TBD	TBD
4	Wetland 002	39.766931	-82.096933	No	PEM	0.49	21	1	TBD	NA	TBD	TBD	TBD	TBD
5	Wetland 003	39.766817	-82.096362	No	PEM	0.66	22	1	TBD	NA	TBD	TBD	TBD	TBD
6	Wetland 004	39.765693	-82.096178	No	PEM	0.15	18	1	TBD	NA	TBD	TBD	TBD	TBD
7	Wetland 005	39.765432	-82.095705	No	PEM	0.02	14	1	TBD	NA	TBD	TBD	TBD	TBD
8	Wetland 006	39.759622	-82.089918	No	PSS	0.14	23	1	TBD	NA	TBD	TBD	TBD	TBD
9	Wetland 007	39.759714	-82.090718	No	PFO	0.45	26	1	TBD	NA	TBD	TBD	TBD	TBD
10	Wetland 008	39.760314	-82.093700	No	PEM	0.07	28	1	TBD	NA	TBD	TBD	TBD	TBD
11	Wetland 009a	39.760790	-82.094939	No	PEM	0.08	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
12	Wetland 009b	39.760641	-82.094478	No	PSS	0.50	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
13	Wetland 009c	39.760583	-82.094438	No	PFO	0.80	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
14	Wetland 010	39.762703	-82.098657	No	PEM	0.27	28	1	TBD	NA	TBD	TBD	TBD	TBD
15	Wetland 011	39.764540	-82.100993	No	PEM	0.01	23	1	TBD	NA	TBD	TBD	TBD	TBD
16	Wetland 012	39.786080	-82.117803	No	PSS	0.18	21	1	TBD	NA	TBD	TBD	TBD	TBD
17	Wetland 013	39.789188	-82.119041	No	PSS	0.58	28	1	TBD	NA	TBD	TBD	TBD	TBD
18	Wetland 014	39.791343	-82.119812	No	PSS	0.88	35	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
19	Wetland 015	39.799388	-82.131173	No	PEM	0.29	25	1	TBD	NA	TBD	TBD	TBD	TBD
20	Wetland 016	39.799928	-82.132336	Yes	PEM	0.04	19	1	TBD	NA	TBD	TBD	TBD	TBD
21	Wetland 017	39.804162	-82.138417	No	PEM	1.10	21	1	TBD	NA	TBD	TBD	TBD	TBD
22	Wetland 018	39.812687	-82.147777	No	PEM	0.08	26	1	TBD	NA	TBD	TBD	TBD	TBD
23	Wetland 019	39.818569	-82.153997	No	PEM	0.01	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
24	Wetland 020	39.818880	-82.154938	No	PEM	0.03	35	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
25	Wetland 021	39.820583	-82.156762	No	PSS	0.04	42	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
26	Wetland 022	39.821508	-82.157825	No	PEM	0.17	41	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
27	Wetland 023	39.823790	-82.160432	Yes	PEM	0.02	38	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
28	Wetland 024	39.828624	-82.166059	No	PEM	0.04	47	2	TBD	NA	TBD	TBD	TBD	TBD
29	Wetland 025	39.829632	-82.167719	No	PEM	0.00	40	Modified 2	TBD	NA	TBD	TBD	TBD	TBD

	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N
1		Loca	tion					ORAM	Nearest				Propose	d 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) <sup>2</sup>	Permanent Impact Area (acre)
30	Wetland 026	39.830165	-82.168610	No	PEM	0.02	43	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
31	Wetland 027a	39.833980	-82.175813	No	PEM	0.07	32	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
32	Wetland 027b	39.834107	-82.176163	No	PFO	0.18	32	Modified 2	TBD	51	TBD	TBD	TBD	TBD
33	Wetland 028	39.834639	-82.177116	No	PFO	0.11	40	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
34	Wetland 029	39.835056	-82.177610	No	PSS	0.44	59	2	TBD	NA	TBD	TBD	TBD	TBD
35	Wetland 030	39.835154	-82.178274	No	PFO	0.02	44	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
36	Wetland 031	39.835714	-82.178249	No	PFO	0.01	53	2	TBD	NA	TBD	TBD	TBD	TBD
37	Wetland 032a	39.836987	-82.181028	No	PEM	0.05	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
38	Wetland 032b	39.837129	-82.180917	No	PSS	0.02	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
39	Wetland 033	39.837413	-82.181772	No	PEM	0.14	37	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
40	Wetland 034a	39.838269	-82.183577	No	PEM	0.19	43	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
41	Wetland 034b	39.838376	-82.183469	No	PSS	0.01	43	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
42	Wetland 035	39.839892	-82.185624	No	PEM	0.11	29	1	TBD	NA	TBD	TBD	TBD	TBD
43	Wetland 036	39.841633	-82.187731	Yes	PEM	0.01	26	1	TBD	NA	TBD	TBD	TBD	TBD
44	Wetland 037	39.843084	-82.189171	No	PSS	0.07	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
45	Wetland 038	39.843438	-82.189250	No	PSS	0.02	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
46	Wetland 039	39.843763	-82.189788	Yes	PEM	0.01	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
47	Wetland 040	39.843977	-82.190076	No	PSS	0.02	37	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
48	Wetland 041	39.848031	-82.194416	No	PEM	0.06	22	1	TBD	NA	TBD	TBD	TBD	TBD
49	Wetland 042	39.850523	-82.197200	No	PEM	0.05	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
50	Wetland 043a	39.852592	-82.199141	No	PEM	0.05	0	1	TBD	NA	TBD	TBD	TBD	TBD
51	Wetland 043b	39.853038	-82.199503	No	PSS	0.15	0	1	TBD	NA	TBD	TBD	TBD	TBD
52	Wetland 044	39.853417	-82.200193	No	PEM	0.11	22	1	TBD	NA	TBD	TBD	TBD	TBD
53	Wetland 045	39.854619	-82.201458	No	PEM	0.46	21	1	TBD	NA	TBD	TBD	TBD	TBD
54	Wetland 046	39.857747	-82.205039	No	PEM	0.18	24	1	TBD	NA	TBD	TBD	TBD	TBD
55	Wetland 047	39.859043	-82.206321	No	PEM	0.05	43	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
56	Wetland 048a	39.862023	-82.209274	Yes	PEM	0.07	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD

	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N
1		Loca	tion					ORAM	Nearest				Propose	d 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) <sup>2</sup>	Permanent Impact Area (acre)
57	Wetland 048b	39.862136	-82.209232	Yes	PFO	0.03	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
58	Wetland 049	39.863698	-82.211098	No	PEM	0.01	36	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
59	Wetland 050	39.875809	-82.224362	No	PEM	0.06	37	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
60	Wetland 051	39.876223	-82.224112	No	PEM	0.00	44	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
61	Wetland 052	39.877029	-82.225723	Yes	PEM	0.07	25	1	TBD	NA	TBD	TBD	TBD	TBD
62	Wetland 053	39.877652	-82.226983	Yes	PEM	0.08	27	1	TBD	NA	TBD	TBD	TBD	TBD
63	Wetland 054	39.877939	-82.227502	Yes	PEM	0.04	29	1	TBD	NA	TBD	TBD	TBD	TBD
64	Wetland 055	39.878263	-82.227653	No	PEM	0.05	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
65	Wetland 056a	39.878796	-82.228548	No	PEM	0.07	42	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
66	Wetland 056b	39.878897	-82.228802	No	PFO	0.10	42	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
67	Wetland 057a	39.883077	-82.234408	Yes	PEM	0.06	49	2	TBD	NA	TBD	TBD	TBD	TBD
68	Wetland 057b	39.883002	-82.234501	Yes	PFO	0.04	49	2	TBD	NA	TBD	TBD	TBD	TBD
69	Wetland 058	39.885247	-82.237325	Yes	PEM	0.03	38	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
70	Wetland 059a	39.886179	-82.238664	No	PEM	0.04	44	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
71	Wetland 059b	39.886024	-82.238818	No	PFO	0.05	44	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
72	Wetland 060	39.887341	-82.240252	No	PFO	0.25	36	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
73	Wetland 061	39.890981	-82.245037	Yes	PEM	0.08	25	1	TBD	NA	TBD	TBD	TBD	TBD
74	Wetland 062	39.893752	-82.248976	No	PEM	0.06	29	1	TBD	NA	TBD	TBD	TBD	TBD
75	Wetland 063	39.894089	-82.249678	Yes	PEM	0.03	18	1	TBD	NA	TBD	TBD	TBD	TBD
76	Wetland 064	39.897090	-82.252996	No	PEM	0.12	27	1	TBD	NA	TBD	TBD	TBD	TBD
77	Wetland 065	39.900589	-82.255299	No	PEM	0.20	52	2	TBD	NA	TBD	TBD	TBD	TBD
78	Wetland 066	39.906086	-82.259643	No	PEM	0.54	44	2	TBD	NA	TBD	TBD	TBD	TBD
79	Wetland 067	39.913291	-82.265067	No	PEM	0.75	49	2	TBD	NA	TBD	TBD	TBD	TBD
80	Wetland 068	39.920083	-82.270123	No	PEM	0.04	21	1	TBD	NA	TBD	TBD	TBD	TBD
81	Wetland 069	39.924170	-82.273510	No	PEM	0.08	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
82	Wetland 070	39.926981	-82.275905	Yes	PEM	0.23	30	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
83	Wetland 071	39.929554	-82.277629	No	PSS	0.08	27	1	TBD	NA	TBD	TBD	TBD	TBD

	Α	В	С	D	Е	F	G	Н	I	J	K	L	М	N
1		Loca	tion					ORAM	Nearest				Propose	d 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) <sup>2</sup>	Permanent Impact Area (acre)
84	Wetland 072	39.930277	-82.278737	No	PEM	0.06	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
85	Wetland 073	39.937909	-82.284836	No	PEM	0.71	23	1	TBD	NA	TBD	TBD	TBD	TBD
86	Wetland 074a	39.939466	-82.285828	No	PFO	0.11	47	2	TBD	NA	TBD	TBD	TBD	TBD
87	Wetland 074b	39.938882	-82.285806	No	PEM	0.31	47	2	TBD	NA	TBD	TBD	TBD	TBD
88	Wetland 075	39.944533	-82.290329	Yes	PEM	0.09	37	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
89	Wetland 076	39.967760	-82.306906	No	PEM	0.08	33	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
90	Wetland 077	39.970770	-82.308763	No	PEM	0.08	21	1	TBD	NA	TBD	TBD	TBD	TBD
91	Wetland 078	39.974770	-82.311327	No	PEM	0.14	34	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
92	Wetland 079	39.975630	-82.311772	No	PEM	0.08	31	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
93	Wetland 080	39.977392	-82.312843	No	PEM	0.08	30	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
94	Wetland 081	39.980132	-82.314128	No	PEM	0.26	29	1	TBD	NA	TBD	TBD	TBD	TBD
95	Wetland 082	39.984460	-82.315834	No	PEM	0.05	17	1	TBD	NA	TBD	TBD	TBD	TBD
96	Wetland 083a	39.992397	-82.318274	No	PEM	0.12	47	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
97	Wetland 083b	39.992406	-82.318178	No	PSS	0.53	47	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
98	Wetland 084	39.992517	-82.318616	No	PEM	0.15	28	1	TBD	NA	TBD	TBD	TBD	TBD
99	Wetland 085	39.992967	-82.318198	No	PEM	0.06	36	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
100	Wetland 086	39.993875	-82.319036	No	PEM	0.24	27	1	TBD	NA	TBD	TBD	TBD	TBD
101	Wetland 087	39.994613	-82.319224	No	PEM	0.09	26	1	TBD	NA	TBD	TBD	TBD	TBD
102	Wetland 088a	40.000188	-82.321254	No	PEM	0.25	46	2	TBD	NA	TBD	TBD	TBD	TBD
103	Wetland 088b	40.000089	-82.321310	No	PSS	0.03	46	2	TBD	NA	TBD	TBD	TBD	TBD
104	Wetland 089	40.008652	-82.329910	No	PEM	0.21	42	2	TBD	NA	TBD	TBD	TBD	TBD
105	Wetland 090	40.013847	-82.336270	Yes	PEM	0.09	25	1	TBD	NA	TBD	TBD	TBD	TBD
106	Wetland 091	40.015260	-82.337979	Yes	PEM	0.02	24	1	TBD	NA	TBD	TBD	TBD	TBD
107	Wetland 092	40.015609	-82.337710	No	PEM	0.04	29	1	TBD	NA	TBD	TBD	TBD	TBD
108	Wetland 093	40.015858	-82.338492	No	PEM	0.08	30	1	TBD	NA	TBD	TBD	TBD	TBD
109	Wetland 094	40.031358	-82.353009	No	PEM	0.12	29	1	TBD	NA	TBD	TBD	TBD	TBD
110	Wetland 095	40.034452	-82.353604	No	PEM	0.67	30	1	TBD	NA	TBD	TBD	TBD	TBD

	А	В	С	D	Е	F	G	Н	I	J	K	L	М	N
1		Loca	tion					ORAM	Nearest				Propose	d 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) <sup>2</sup>	Permanent Impact Area (acre)
111	Wetland 096	40.056417	-82.354012	Yes	PFO	0.09	32	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
112	Wetland 097	40.078006	-82.360454	No	PEM	0.09	35	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
113	Wetland 098	40.078963	-82.360514	No	PEM	0.10	26	1	TBD	NA	TBD	TBD	TBD	TBD
114	Wetland 099	40.079044	-82.361024	No	PEM	0.22	26	1	TBD	NA	TBD	TBD	TBD	TBD
115	Wetland 100	40.088190	-82.368025	No	PEM	0.16	35	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
116	Wetland 101	40.097103	-82.393627	Yes	PEM	0.12	19	1	TBD	NA	TBD	TBD	TBD	TBD
117	Wetland 102	40.097012	-82.395749	No	PEM	0.22	35	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
118	Wetland 103	40.096571	-82.403694	No	PEM	0.61	43	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
	Wetland 104	40.096508	-82.404812	No	PEM	0.15	39	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
	Wetland 105a	40.095423	-82.415010	Yes	PFO	0.06	41	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
121	Wetland 105b	40.095063	-82.414886	Yes	PEM	0.20	41	Modified 2	TBD	NA	TBD	TBD	TBD	TBD
122	Wetland 106a	40.092184	-82.415114	No	PEM	0.55	48	2	TBD	NA	TBD	TBD	TBD	TBD
	Wetland 106b	40.091986	-82.414967	No	PUB	0.23	48	2	TBD	NA	TBD	TBD	TBD	TBD
124	Wetland 107	40.091074	-82.415358	No	PEM	0.07	22	1	TBD	NA	TBD	TBD	TBD	TBD
125	Wetland 108	40.089515	-82.415416	Yes	PEM	0.06	23	1	TBD	NA	TBD	TBD	TBD	TBD
126					Total:	20.891							0.000	0.000



#### **APPENDIX B**

U.S. ARMY CORPS OF ENGINEERS WETLAND DATA FORMS

OEPA WETLAND ORAM FORMS

DELINEATED FEATURES PHOTOGRAPHS (WETLANDS)

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

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-03
Investigator(s): AEH, WRL	Section, Township, Range: S 20 T 14N R 14W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N La	.at.: 39.76849 Long.: -82.0976 Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent slopes, of	occasionally flooded NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	of year? Yes   No (If no, explain in Remarks.)
Are Vegetation . , Soil . , or Hydrology . signific	cantly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation . , Soil . , or Hydrology . natura	ally problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showin	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	
Hydric Soil Present? Yes   No   No   No   No   No   No   No   N	Is the Sampled Area Yes No O
Wetland Hydrology Present? Yes   No	within a Wetland?
	on terrace on right descending bank of Moxahala Creek (Stream 001). Wetland fully soils, within ROW of multiple powerlines and possibly dipped out streambed spoils pile
Hydrology	
Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	Plants (B14)  Sparsely Vegetated Concave Surface (B8)  Fide Odor (C1)  Sparsely Vegetated Concave Surface (B8)  Prainage Patterns (B10)  Moss Trim Lines (B16)  Preduced Iron (C4)  Dry Season Water Table (C2)  Reduction in Tilled Soils (C6)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)
Field Observations:  Surface Water Present?  Water Table Present?  Yes No Depth (inchese)  Depth (inchese)	es):
Saturation Present? (includes capillary fringe)  Yes No Depth (inches	Wetland Hydrology Present? Yes No O
Describe Recorded Data (stream gauge, monitoring well, aerial ph	hotos, previous inspections), if available:
Remarks:	
One primary and two secondary hydrology indicators present. Pri Creek), which flows north to Muskingum River, a TNW.	imary source of hydrology is overbank flow from perennial Stream 001 (Moxahala

			ominant becies? -		Sampling Point: w-aeh-20200922-03
Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Re	el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2	0		0.0%		T I I I I I I I I I I I I I I I I I I I
3			0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.			0.0%		
5			0.0%		Percent of dominant Species
6.			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8.	0		0.0%		Total % Cover of: Multiply by:
	0	— . = Тс	tal Cover		0BL speci es
Sapling-Sapling/Shrub Stratum (Plot size: 15' r					FACW speci es 80 x 2 = 160
1. Acer negundo	10	✓	58.8%	FAC	
2. Sambucus nigra	5	✓	29.4%	FAC	FAC speciles $33 \times 3 = 99$
3. Populus deltoides			11.8%	FAC	FACU speci es $\frac{15}{2}$ x 4 = $\frac{60}{2}$
4			0.0%		UPL speci es x 5 =
5			0.0%		Column Totals: 128 (A) 319 (B)
6.			0.0%		Prevalence Index = B/A =
7			0.0%		
8.		$\Box$	0.0%		Hydrophytic Vegetation Indicators:
9.		$\Box$	0.0%		Rapid Test for Hydrophytic Vegetation
		$\Box$	0.0%		Dominance Test is > 50%
10			otal Cover		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= 10			Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0		0.0%		
3			0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			0.0%		
5	0	$\square$	0.0%		Definition of Vegetation Strata:
6	0	$\square$	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), regardless
Herb Stratum (Plot size: 5' r )	0 :	= To	otal Cover	=	of height.
1. Phalaris arundinacea	80	<b>✓</b>	72.1%	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. Cirsium arvense	15	$\square$	13.5%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Verbesina alternifolia	10	$\square$	9.0%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
4. Desmodium canadense	3		2.7%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Eutrochium purpureum	2	$\square$	1.8%	FAC	
6. Amphicarpaea bracteata		$\square$	0.9%	FAC	Five Vegetation Strata:
7	0	Ш	0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8	0		0.0%		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 less than
11.	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15' r )	111	= Tc	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants,
	0		0.0%		including herbaceous vines, regardless of size, and woody
1			0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
2					
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	$\Box$	0.0%		Vegetation Present? Yes No No
		= To	otal Cove	r	
Remarks: (Include photo numbers here or on a separate sheat Hydrophytic vegetation indicator present as dominance test $>$ 50%, or		ecies	s are FACW	/ and FAC.	

Sampling Point:

w-aeh-20200922-03

nches)		Matrix				dox Featu	1				
U-3		(moist)		Color	(moist)	%	Type	Loc <sup>2</sup>	Texture	Rer	marks
	10YR	3/3	100						Silt Loam	promi nent	redov
3-11	2.5Y	5/2	. 85	10YR	4/6	15	C	PL	Sandy Loam	concentra	tions
1-16	10YR	4/2	80	10YR	4/6	20	C	PL	Sandy Clay Loam	di sti nct concentra	
						_					
		1								'	
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e: C=Conce	entration. [	D=Depletion	on. RM=Redu	ıced Matrix,	CS=Covere	ed or Coate	d Sand Grair	ns <sup>2</sup> Locat	ion: PL=Pore Lining. N	l=Matrix	
dric Soil Ir									Indicators for Pr	oblematic Hydri	ic Soils <sup>3</sup> :
Histosol (A					k Surface (		CO) /8.41 D.4. ~	47 140	2 cm Muck (A	A10) (MLRA 147)	
Histic Epipe Black Histic							S8) (MLRA 1 ILRA 147, 14		Coast Prairie		
Hydrogen S		)				Matrix (F2)		)	(MLRA 147,1	•	
Stratified L		•			leted Matri				Piedmont Flo (MLRA 136, 1	odplain Soils (F19)	)
2 cm Muck		R N)				ırface (F6)				Dark Surface (TF	12)
Depleted B	selow Dark	Surface (A	A11)	Dep	leted Dark	Surface (F	7)		Other (Explai		*
Thick Dark	Surface (A	12)			ox Depress					,	
Sandy Muc MLRA 147,	k Mineral (	S1) (LRR I	٧,		-Manganes A 136)	se Masses (	F12) (LRR N	ı			
Sandy Gley		(CA)			,	e (F13) (ML	RA 136, 122	2)			
Sandy Red		(34)					(F19) (MLR		<sup>3</sup> Indicator	s of hydrophytic v	egetation and
Stripped M							(MLRA 127,		wetland unles	d hydrology must l ss disturbed or pro	pe present, oblematic.
						· · · ·	`	<u> </u>			
strictive La	yer (if obs	served):									
Type: Depth (inch	oc).								Hydric Soil Presen	t? Yes •	No O
marks:								_			
	icator pre	sent as lo	ow chroma.	/high value	matrix w	ith comm	on promine	ent redox	concentrations in po	nre lininas in sar	ndy soil
iic soii iiidi	icator pre	36111 (13 11	JW CHIOHIA	riigii value	IIIatiix w	in comm	on promin	ent redux	concentrations in pe	ire iiriirigs iir sai	idy 3011.

### Upland 001

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

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: upl-aeh-20200922-03
Investigator(s): AEH, WRL	Section, Township, Range: S 20 T 14N R 14W
Landform (hillslope, terrace, etc.): Terrace	Local relief (concave, convex, none): concave Slope: 3.0 % / 71.6 °
Subregion (LRR or MLRA): LRR N	Lat.: 39.76485 Long.: -82.09751 Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent slopes	s, occasionally flooded NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this tim	ne of year? Yes  No  (If no, explain in Remarks.)
	ificantly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation , Soil , or Hydrology natu	rally problematic? (If needed, explain any answers in Remarks.)
j ,	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	
Hydric Soil Present? Yes   No   No   No   No   No   No   No   N	Is the Sampled Area Yes O No •
Wetland Hydrology Present? Yes O No •	within a Wetland?
floodplain of Moxahala Creek (Stream 001). Within ROW of m wetland point as hydrology criteria not met.  Hydrology	ultiple powerlines=disturbed soils, within 100-year floodplain=problematic soils. Not a
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that a	
	ic Plants (B14) Sparsely Vegetated Concave Surface (B8)
	Sulfide Odor (C1) Drainage Patterns (B10)
	hizospheres along Living Roots (C3)
	n Reduction in Tilled Soils (C6)  Crayfish Burrows (C8)
	Surface (C7) Saturation Visible on Aerial Imagery (C9)
	ain in Remarks) Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	Shallow Aquitard (D3)
Aquatic Fauna (B13)	☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inc	ches):0
Water Table Present? Yes O No O Depth (inc	ches):
Saturation Present? (includes capillary fringe)  Yes No  Depth (includes Capillary fringe)	ches): Wetland Hydrology Present? Yes O No
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if available:
Remarks:	
No hydrology indicators present.	

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

			ominant		Sampling Point: upl-aeh-20200922-03
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	JI.Otiat.	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  1 (A)
2	0		0.0%		Total Number of Demisers
3			0.0%		Total Number of Dominant Species Across All Strata: (B)
4			0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
6			0.0%		That Are Obe, FACW, of FAC.
7	0		0.0%		Prevalence Index worksheet:
8	0	Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r )		= To	tal Cover		0BL speci es
4 Dhua tambina	20	<b>✓</b>	62.5%	UPL	FACW speci es <u>62</u> x 2 = <u>124</u>
Rnus typnina     Prunus serotina			15.6%	FACU	FAC speci es x 3 =60
3. Rubus occidentalis			15.6%	UPL	FACU speci es $10$ x 4 = $40$
4. Platanus occidentalis			6.3%	FACW	UPL speci es $\frac{25}{100}$ x 5 = $\frac{125}{100}$
5.			0.0%		Column Totals: <u>117</u> (A) <u>349</u> (B)
6.			0.0%		Prevalence Index = B/A =
7			0.0%		
8.			0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9			0.0%		Dominance Test is > 50%
10.			0.0%		Prevalence Index is \$3.0 1
Shrub Stratum (Plot size:)		= Tc	tal Cover		
	0	П	0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1 2	0	$\Box$	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.	0	$\Box$	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.		$\Box$	0.0%		be present, unless disturbed or problematic.
5.		$\Box$	0.0%		Definition of Vegetation Strata:
6.	0	$\Box$	0.0%		Four Vegetation Strata:
7	0	$\Box$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
Herb Stratum (Plot size: 5' r )		— = Тс	tal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Phalaris arundinacea	60	<b>✓</b>	70.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
0 1/4   1   1   1   1   1   1   1   1   1	10		11.8%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
verbesina aiternirolla     Symphyotrichum pilosum	10	$\Box$	11.8%	FAC	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
Solidago canadensis	5	П	5.9%	FACU	Woody vines – Consists of all woody vines greater than 3.28 ft
5	0		0.0%		in height.
6	0		0.0%		Fire Westerland 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 larger in
9.	0		0.0%		diàmeter 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 less than
11	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15'r )	85	= To	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants,
1.	0		0.0%		including herbaceous vines, regardless of size, and woody
2	0	$\Box$	0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
•	0	$\Box$	0.0%		Woody vines – Consists of all woody vines, regardless of
3	0	$\Box$	0.0%		height.
4 5.	0		0.0%		
5	0		0.0%		Hydrophytic Vegetation
U	0	ب Tı	otal Cover		Present? Yes No
Demorks, (Include photo-sure base base)			a. oove		l
Remarks: (Include photo numbers here or on a separate sheethydrophytic vegetation indicator present as prevalence test < 3.0, do		ies a	are FACW a	and UPL	

Upland 001

Soil

Sampling Point: upl-aeh-20200922-03

Depth		Matrix			Re	edox Featu	res				
(inches)_		(moist)	%		moist)	%	_Tvpe_1	Loc <sup>2</sup> _	Texture	Remarks	
0-3	10YR	4/2		10YR	3/1		D	M	Sandy Loam	promi pont rodov	
3-9	10YR	3/1	70	10YR	4/4	30	C	M	Sandy Loam	promi nent redox concentrations	
9-14	2.5Y	4/3	90	10YR	4/6	10	С	М	Sandy Clay	distinct redox concentrations	
		_									
		`			1					'	
		`			•	•				,	
										·	
										<del></del> ,	
										<u>.</u>	
										·	
						_					
me: C-Con	centration (	D-Denletic	n RM-Redu	ced Matrix	CS-Cover	ed or Coate	d Sand Grai	ns 21 oca	tion: PL=Pore Lining.	M-Matrix	
	ndicators:	D-Depietit	JII. KWI-KEGO	ced Matrix,	C3=C0VEI	eu or coate	a Sana Gran	113 LOCA			
Histosol (				□ Dark	< Surface (	(\$7)				Problematic Hydric Soils <sup>3</sup> :	
	pedon (A2)					ow Surface (:	S8) (MLRA	147.148)		(A10) (MLRA 147)	
Black Hist						face (S9) (M				ie Redox (A16)	
	Sulfide (A4	)				Matrix (F2)			(MLRA 147	•	
Stratified	Layers (A5)				leted Matr				(MLRA 136	Floodplain Soils (F19) 5, 147)	
2 cm Muc	k (A10) (LR	R N)		Red	ox Dark Su	urface (F6)			Very Shallo	ow Dark Surface (TF12)	
Depleted	Below Dark	Surface (A	<b>\11)</b>	☐ Dep	leted Dark	Surface (F7	')		_	lain in Remarks)	
Thick Dar	k Surface (A	12)		Red	ox Depres	sions (F8)				,	
Sandy Mu	ıck Mineral (	(S1) (LRR	N,			se Masses (I	F12) (LRR N	Ι,			
MLRÅ 147					A 136)	o (E12) (MI	DA 127 12	2)			
	eyed Matrix	(S4)				e (F13) (ML			<sup>3</sup> Indicat	tors of hydrophytic vegetation	and
Sandy Re						odplain Soils			wetla	and hydrology must be presen	t,
	Matrix (S6)			∟ Red	Parent Ma	aterial (F21)	(MLRA 127	, 147)	ur	lless disturbed or problematic.	
	ayer (if ob:	served):									
	ayer (if ob	served):									
strictive L		served):							Hydric Soil Prese	ent? Yes • No O	
strictive La Type: Depth (inc		served):						<u> </u>	Hydric Soil Prese	ent? Yes • No O	
strictive La Type: Depth (incomarks:	hes):		ow chroma/	high value	matrix v	vith comm	on promin	ent redox		ent? Yes No O	
strictive La Type: Depth (incomarks:	hes):	sent as l	ow chroma/ am substrat			vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
trictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
strictive La Type: Depth (incomarks: ric soil incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
strictive La Type: Depth (incommarks: Iric soil inc	hes):	sent as l				vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks:	hes):	sent as l				vith commo	on promin	ent redox			
strictive La Type: Depth (incomarks: ric soil incomarks:	hes):	sent as l				vith comm	on promin	ent redox			
strictive La Type: Depth (incomarks: ric soil incomarks:	hes):	sent as l				vith comm	on promin	ent redox			

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey	/ Hanner		Date:	9/22/2020
			. , ,		Field Id:		
	1 1	Metric 1. Wet	land Area (size).	•	w-aeh-20200922-03		
max 6 pts	subtotal	Select one size class	and assign score.	_			
		>50 acres (>20.2ha) ( 25 to <50 acres (10.1			0.21 acres		
		10 to <25 acres (4 to	<10.1ha) (4 pts)				
		3 to <10 acres (1.2 to 0.3 to <3 acres (0.12 to					
		x 0.1 to <0.3 acres (0.04	4 to <0.12ha) (1 pt)				
		<0.1 acres (0.04ha) (0					
	5 6	Metric 2. Upla	and buffers and su	rroundin	g land use.		
max 14 pts.	subtotal			_	n score. Do not double check.		
			e 50m (164ft) or more around rage 25m to <50m (82 to <16				
			erage 10m to <25m (32ft to < fers average <10m (<32ft) ard				
			ounding land use. Select one		* *		
			vth or older forest, prairie, sav		_		
			ears), shrubland, young secon	-			
			. Residential, lended pasture, al, open pasture, row cropping		ation tillage, new fallow field. (3)		
	14.0 20.0			J. U.	· /		
max 30 pts.	subtotal		r. Score all that apply.	3	3b. Connectivity. Score all that appl	v	
max 30 pts.	Subtotal	High pH groundwater			100 year floodplain (1)	y.	
		Other groundwater (3)	)		Between stream/lake and other human		
		x Precipitation (1) Seasonal/Intermittent	surface water (3)		Part of wetland/upland (e.g. forest), co Part of riparian or upland corridor (1)	mplex (1)	
		x Perennial surface wat	, ,		3d. Duration inundation/saturation.	Score one or dbl check.	
		3c. Maximum water	depth. Select one.		Semi- to permanently inundated/satura	ated (4)	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 2)	7.6in) (2)		Regularly inundated/saturated (3) Seasonally inundated (2)		
		x <0.4m (<15.7in) (1)	, (=)		Seasonally saturated in upper 30cm (1	2in) (1)	
			natural hydrologic regime. S				
		None or none apparer Recovered (7)	11 (12)		Check all disturbances observed ditch x point s	ource (nonstormwater)	
		x Recovering (3)			ile x filling/g		
		Recent or no recovery	<i>(</i> (1)			ed/RR track	
					weir x dredgii stormwater input Other:	ng	
	8 28	Metric 4 Hab	itat Alteration and	<u> </u>	• —		
max 20 pts.	subtotal	4	pance. Score one or double	-			
max 20 pts.	Subtotal	None or none apparer		CHECK and ave	eraye.		
		Recovered (3)					
		x Recovering (2) Recent or no recovery	, (1)				
			nent. Select only one and as	sign score.			
		Excellent (7)	•	·			
		Very good (6)					
		Moderately good (4)					
		x Fair (3)					
		Poor to fair (2)					
		Poor (1)  4c. Habitat alteration	. Score one or double check	k and average	<b>).</b>		
		None or none apparer			Check all disturbances ob <u>serve</u> d	_	
		Recovered (6) x Recovering (3)				sapling removal eous/aquatic bed remova	al.
		Recent or no recovery	<i>(</i> (1)			eous/aquatic bed remova entation	
				X	selective cutting dredging	ng	
					woody debris removal x farming oxic pollutants nutrien	g It enrichment	
	28	1		Ш,	nunier		
		page ORAM v. 5.0 Field Fo	rm Quantitative Rating				

w-aeh-20200922-03 oram.xlsm | test\_Field

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey H	lanner		Date:	9/22/2020
		-			Field Id:		
	28	3			w-aeh-20200922-03		
	subtotal thi		aial Matlamala				
	0 28	<b>_</b>	cial Wetlands.				
max 10 pts.	subtotal	Bog (10) Fen (10) Old growth forest (10) Mature forested wetla Lake Erie coastal/tribl Lake Plain Sand Prair Relict Wet Praires (10)	nd (5) utary wetland-unrestricted hydrolo utary wetland-restricted hydrology ies (Oak Openings) (10)	gy (10) (5)	es (10)		
			songbird/water fowl habitat or usag				
		_ · ·	See Question 5 Qualitative Rating				
	-3 25	Metric 6. Plar	it communities, inter	spersi	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cov	er Scale	
		Score all present using	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed		1	Present and either comprises small par		
		1 Emergent 0 Shrub			vegetation and is of moderate quality, or significant part but is of low quality	or comprises a	
		Forest			Present and either comprises significar	nt part of wetland's 2	
		Mudflats		_	vegetation and is of moderate quality o		
		Open water			part and is of high quality		
		Other	<del></del> .		Present and comprises significant part,	or more, of wetland's 3	
		<b>6b. horizontal (plan</b> Select only one.	view) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of		
		x Low (1) None (0)			although nonnative and/or disturbance		
		6c. Coverage of inva	sive plants Refer		can also be present, and species diver- moderately high, but generallyw/o pres		
		Table 1 ORAM long for			threatened or endangered spp to	onoo or rare	
		or deduct points for co			A predominance of native species, with	nonnative spp high	
		x Extensive >75% cove			and/or disturbance tolerant native spp		
		Moderate 25-75% cov			absent, and high spp diversity and ofte		
		Sparse 5-25% cover Nearly absent <5% co		l	the presence of rare, threatened, or en	uangered spp	
		Absent (1)	, vo. (0)		Mudflat and Open Water Class Quali	ty	
		6d. Microtopography	<i>i</i> .		Absent <0.1ha (0.247 acres)		
		Score all present using			Low 0.1 to <1ha (0.247 to 2.47 acres)		
		0 Vegetated hummucks			Moderate 1 to <4ha (2.47 to 9.88 acres	)	
		Coarse woody debris     Standing dead >25cm		3	High 4ha (9.88 acres) or more		
		Amphibian breeding p			Microtopography Cover Scale		
				0	Absent		
					Present very small amounts or if more of marginal quality		-
				2	Present in moderate amounts, but not		·
Category 1					quality or in small amounts of highest q		
	25 GRAN	D TOTAL(max 100 pt	s)		Present in moderate or greater amount	s	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 001

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 001

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 001

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 001

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 001

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



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

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-02
Investigator(s): AEH, WRL	Section, Township, Range: S 20 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 1.0 % / 45.0 °
Subregion (LRR or MLRA): LRR N Lat.:	39.76666 Long.: -82.09676 Datum: NAD83
Soil Map Unit Name: Ds - Dumps, mine	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
	tly disturbed? Are "Normal Circumstances" present? Yes   No
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   No	
Hydric Soil Present? Yes   No	Is the Sampled Area Yes   No O
Wetland Hydrology Present? Yes   No	within a Wetland?
Remarks:	
Mapped wetland extent includes about 10% upland area in complex	Imps=disturbed soils, within 100-year floodplain = potentially problematic soils.
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 Plant☐ High Water Table (A2) ☐ Hydrogen Sulfide (☐ Hydrogen Sulfide (	
	eres along Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduc	
Sediment Deposits (B2)	ction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift deposits (B3)  Thin Muck Surface	
Algal Mat or Crust (B4)  Other (Explain in F	, —
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7)	✓ Geomorphic Position (D2)  ☐ Shallow Aguitard (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
Water Table Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes  No
Saturation Present? (includes capillary fringe)  Yes No Depth (inches):	wetland Hydrology Present? Tes S No C
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	(00000 0000 0040 )
	n aerial imagery (OGRIP-OSIP 2013 imagery). Primary sources of hydrology are in geomorphic position. Wetland abuts perennial stream Moxahala Creek that flows
north to Muskingum River, a TNW.	

			ominant		Sampling Point: w-aeh-20200922-02
_Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Re	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC:3(A)
2.	0		0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4			0.0%		Species Across Air Strata.
5.			0.0%		Percent of dominant Species
		$\Box$	0.0%		That Are OBL, FACW, or FAC: 75.0% (A/B)
6		$\Box$	0.0%		Prevalence Index worksheet:
7		$\Box$	0.0%		Total % Cover of: Multiply by:
8		— – Та	tal Cover		
Sapling-Sapling/Shrub Stratum (Plot size: 15' r )		- 10	otal cover		
1. Salix nigra	E	<b>✓</b>	71.4%	OBL	FACW speciles $72 \times 2 = 144$
2. Fraxinus pennsylvanica		<b>✓</b>	28.6%	FACW	FAC speci es x 3 =
3			0.0%		FACU speci es 30 x 4 = 120
4			0.0%		UPL speci es $0 \times 5 = 0$
5		$\Box$	0.0%		Column Totals: <u>107</u> (A) <u>269</u> (B)
6.		$\Box$	0.0%		
		$\Box$	0.0%		Prevalence Index = B/A = 2.514
7		$\Box$	0.0%		Hydrophytic Vegetation Indicators:
8		$\Box$	0.0%		Rapid Test for Hydrophytic Vegetation
9			-		✓ Dominance Test is > 50%
10		_	0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	7	= 10	otal Cover	=	☐ Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	Ц	0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3		Ш	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6.			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), regardless
Herb Stratum (Plot size: 5' r )	0	= To	otal Cover	-	of height.
1. Phalaris arundinacea	60	<b>✓</b>	60.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
Symphyotrichum ericoides	20	✓	20.0%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody) plants,
Apocynum cannabinum	10		10.0%	FACU	regardless of size, and all other plants less than 3.28 ft tall.
Panicum dichotomiflorum	10	П	10.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	$\Box$	0.0%		in height.
	0	$\Box$	0.0%		
6			0.0%		Five Vegetation Strata:
7			0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8			0.0%		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 woody
10	0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12	0	$\Box$	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size: 15' r )	100	= 10	otal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	Ш	0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0		0.0%		height.
5	0		0.0%		Lhydrophytia
6	0		0.0%		Hydrophytic Vegetation
	0	= T	otal Cove	r	Present? Yes No O
Remarks: (Include photo numbers here or on a separate shee					<u> </u>
mernancs. (Thichade photo humbers here of on a separate shee	51. <i>)</i>				

Soil

Sampling Point:

w-aeh-20200922-02

10YR   4/2   90   10YR   4/6   10   C   PL   Silt Loam   Concentrations	(Inol )	0.1	Matrix (maist)		0=1:::/		edox Featu	1	1 2	Touture	DI			
Contentration	inches)			90			10	Tvpe_	Loc <sup>2</sup>	Texture				
2-18 2.5 Y 5/2 80 101	_													
De: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains    De: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains    Dec: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains    Dec: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains    Decided Sand Matrix (F2)    Depleted Below Dark Surface (A11)    Depleted Below Dark Surface (A11)    Depleted Below Dark Surface (A12)    Depleted Below Dark Surface (A11)    Depleted Below Dark Surface (A12)    Depleted Below Dark Surface (A11)    Depleted Below Dark Surface (A12)    Depleted Below Dark Surface (A13)    Depleted Matrix (F3)    Depleted Matrix (F3)    Depleted Matrix (F4)    MLRA 136)    Sandy Gleyed Matrix (S4)    Depleted Matrix (F4)    Depleted Matrix (F	6-12	2.5Y	5/2	_ 80	10YR	4/4		С С	PL	Sandy Clay Loam	concentrati ons			
Arric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 136, 147)  Other (Explain in Remarks)  Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils (F19) (MLRA 136, 147, 148)  Depleted Below Surface (S8) (MLRA 147, 148)  Piedmont Floodplain Soils (F19) (MLRA 136, 147)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.	2-18	2.5Y	5/1	70	10YR	4/4	30	С	PL	Sandy Clay				
Indicators:  Histosol (A1)											·			
Arric Soil Indicators:  Histosol (A1)											·			
Arric Soil Indicators:  Histosol (A1)			`								<u>`</u>			
Arric Soil Indicators:  Histosol (A1)														
Arric Soil Indicators:  Histosol (A1)			,								·			
Arric Soil Indicators:  Histosol (A1)		econtration I	D. Doplotii	on DM Dod	used Matrix C	°S Cover	ad or Coats	nd Sand Crain	21.000	tion: DL Poro Lining M	Matrix			
Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Red Parent Material (F21) (MLRA 127, 147)  Thick Layer (if observed):  Type:  Depth (inches):  Thick Dark Surface (S7)  Depleted Below Dark Surface (S7)  Depleted Dark Surface (F6)  Wery Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Thick Dark Surface (A12)  Al Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes No				JII. RIVI=REGU	iced Matrix, C	,S=COVER	eu or coate	u sanu Gran	is ~Luca					
Black Histic (A3)														
Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136, 122)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**  Type:  Depth (inches):  **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.**  Hydric Soil Present? Yes • No • No • Matrix (S6)										Coast Prairie F	Redox (A16)			
2 cm Muck (A10) (LRR N)									Piedmont Floc	dplain Soils (F19)				
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Troit Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Type:  Depth (inches):  Hydric Soil Present? Yes No														
Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Trictive Layer (if observed):  Type:  Depth (inches):  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Warried Soil Present?  Yes No Omarks:									_					
Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Trictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No		,								Uther (Explain in Remarks)				
Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Trictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No O	Sandy Mu	uck Mineral (		N,	☐ Iron-	Mangane:		(F12) (LRR N	r					
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Type:  Depth (inches):  Hydric Soil Present? Yes No O	MEIOV 147, 140)					RA 136, 122	2)							
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Itrictive Layer (if observed):  Type:  Depth (inches):  Marks:  Hydric Soil Present? Yes No O	Sandy Redox (S5)				Piedr	mont Floo	dplain Soils	(F19) (MLR	A 148)	3 Indicators	of hydrophytic vegetation and			
Type:	Stripped I	Matrix (S6)			Red	Parent Ma	aterial (F21)	) (MLRA 127	, 147)	unless disturbed or problematic.				
Depth (Inches): Hydric Soil Present? Yes • No O	strictive L	ayer (if ob:	served):											
marks:	Type:									Hydric Soil Present	? Yes (•) No ()			
		ches):								Trydric Son Tresent	· 163 © 110 ©			
	dric soil in	dicator pre	esent as I	ow chroma	/high value	matrix w	vith comm	ion promin	ent redox	concentrations in por	re linings.			

Upland 002

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

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH	Sampling Point: upl-aeh-20200921-02
Investigator(s): AEH, WRL	Section, Township, Range: S 20	T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none):	none Slope: 1.0 % / 45.0 °
Subregion (LRR or MLRA): LRR N Lat	:: 39.76735 Long.: -8	32.09709 Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent slopes, oc	casionally flooded	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explai	in in Remarks.)
Are Vegetation $\square$ , Soil $\checkmark$ , or Hydrology $\square$ signification	ntly disturbed? Are "Normal Circun	mstances" present? Yes 💿 No 🔾
Are Vegetation ☐ , Soil ✔ , or Hydrology ☐ naturally	problematic? (If needed, explain	n any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locations, tra	ansects, important features, etc.
Hydrophytic Vegetation Present? Yes No •		
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area	O No ●
Wetland Hydrology Present? Yes O No 💿	within a Wetland?	
Sample point Upland 002 (upl-aeh-20200922-02) point out to we 100-year floodplain of Moxahala Creek (Stream 001). Within ROW problematic soils. Not a wetland point, no wetland criteria met		
Hydrology		
Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	nts (B14)  c Odor (C1)  pheres along Living Roots (C3)  uced Iron (C4)  uction in Tilled Soils (C6)  cc (C7)  n Remarks)  Summer	dary Indicators (minimum of two required)  urface Soil Cracks (B6)  parsely Vegetated Concave Surface (B8)  rainage Patterns (B10)  poss Trim Lines (B16)  ry Season Water Table (C2)  rayfish Burrows (C8)  atturation Visible on Aerial Imagery (C9)  unted or Stressed Plants (D1)  emorphic Position (D2)  nallow Aquitard (D3)  icrotopographic Relief (D4)  AC-neutral Test (D5)
Field Observations:  Surface Water Present?  Yes No Depth (inches)	: 0	
Water Table Present? Yes No Depth (inches)		
Saturation Present?  (includes consillary frings)  Yes No Depth (inches)	Wetland Hydrology F	Present? Yes O No 🖲
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial phone Remarks:  One secondary hydrology indicator present.		

### Upland 002

			ominant		Sampling Point: upl-aeh-20200921-02
Tree Stratum (Plot size: 30' r )	Absolute % Cover	R	oecies? el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2	0		0.0%		
3			0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
4			0.0%		Species reliass rill strata.
5			0.0%		Percent of dominant Species
6			0.0%		That Are OBL, FACW, or FAC: 40.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
	0	= To	otal Cove	r	0BL speci es x 1 =
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	)				FACW species 25 x 2 = 50
1			0.0%		FAC species 20 x 3 = 60
2	0		0.0%		
3	0		0.0%		· — — — — — — — — — — — — — — — — — — —
4			0.0%		10 E Spool 65
5			0.0%		Column Totals: <u>115</u> (A) <u>400</u> (B)
6			0.0%		Prevalence Index = B/A =3.478_
7			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		Dominance Test is > 50%
0	0		0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0	= To	otal Cove	r	
	0	П	0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1		$\Box$	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3			0.0%		be present, unless disturbed or problematic.
4					Definition of Vegetation Strata:
5			0.0%		Four Vegetation Strata:
6			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		$\Box$	0.0%		(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size: <u>5' r</u> )	0	= 10	otal Cove	r	of height.  Sapling/shrub stratum – Consists of woody plants, excluding
1. Phalaris arundinacea	25	<b>✓</b>	21.7%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Melilotus officinalis	20	<b>✓</b>	17.4%	FACU	Herb stratum - Consists of all herbaceous (non-woody) plants,
3. Setaria pumila	15	✓	13.0%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
4. Cirsium arvense	15	<b>✓</b>	13.0%	FACU	Woody vines – Consists of all woody vines greater than 3.28 ft
5. Solidago canadensis	15	✓	13.0%	FACU	in height.
6. Daucus carota	10		8.7%	UPL	Five Vegetation Strata:
7. Symphyotrichum ericoides	10		8.7%	FACU	Tree - Woody plants, excluding woody vines, approximately 20
8. Pycnanthemum verticillatum	5		4.3%	FAC	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).
0	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than
1	0		0.0%		3 in. (7.6 cm) DBH.
2.	0		0.0%		Shrub stratum - Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15' r )	115	= To	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
1	0		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
5	0		0.0%		Hydrophytic
6	0		0.0%		Hydrophytic Vegetation
	0	= T	otal Cove	er	Present? Yes No

Sampling Point:

upl-aeh-20200921-02

	iption: (De	escribe to Matrix	the depth r		nt the indica Redox Featur		firm the a	bsence of indicator	rs.)	
Depth (inches)	Color	(moist)	%	Color (moist)		_Tvpe_1	Loc <sup>2</sup> _	Texture	Rema	arks
0-2	10YR	3/1	100					Silt Loam	gravel I y	
		`							•	
		`			_				'	
									,	
									·,	
									· · · · · · · · · · · · · · · · · · ·	
									· · · · · · · · · · · · · · · · · · ·	
									<del></del> ,	
									·	
<sup>1</sup> Type: C=Cond	centration. I	D=Depletio	n. RM=Redu	ced Matrix, CS=Cov	ered or Coated	l Sand Grai	ns ²Locat	ion: PL=Pore Lining.	M=Matrix	
Hydric Soil I	ndicators:							Indicators for	Problematic Hydric	Soils 3.
☐ Histosol (A				☐ Dark Surfac	e (S7)				(A10) (MLRA 147)	
	pedon (A2)				elow Surface (S				e Redox (A16)	
Black Histi					urface (S9) (ML	_RA 147, 1	18)	(MLRA 147		
	Sulfide (A4	)			ed Matrix (F2)			Piedmont F	loodplain Soils (F19)	
	Layers (A5) k (A10) (LRI	D NI)		Depleted Ma	strix (F3) Surface (F6)			(MLRA 136		
	Below Dark		11\		rk Surface (F7)	)			w Dark Surface (TF12	')
	k Surface (A		.11)	Redox Depre		,		Uther (Exp	lain in Remarks)	
	ck Mineral (		J.	☐ Iron-Mangai	nese Masses (F	12) (LRR N	l,			
MLRA 147	', 148)			MLRA 136)						
_	yed Matrix	(S4)			ace (F13) (MLF			<sup>3</sup> Indicat	ors of hydrophytic veg	netation and
Sandy Red					oodplain Soils			wetla	nd hydrology must be	present,
☐ Stripped N	Matrix (S6)			☐ Red Parent	Material (F21)	(MLRA 127	, 14/)	un	less disturbed or prob	iematic.
Restrictive La	ayer (if ob:	served):								
Type:								Hydric Soil Prese	ent? Yes O	No •
Depth (inch	nes):							Trydite 3011 Frese	res O	110
Remarks:										
Shovel refusa hydrology pre			gravel fill. N	o hydric soil indic	ators presen	t in distur	bed soils.	No indicators for h	ydrophytic vegetat	ion or wetland
nyarology pre	sent ettne	:I .								

Site: Croc	ksville- Nev	wark Project	Rater(s): Audrey Ha	anner	Date:	9/22/2020
				Field ld:		
	2 2	Metric 1. Wetla	nd Area (size).	w-aeh-20200922-02		
max 6 pts	subtotal	Select one size class a  >50 acres (>20.2ha) (6 p  25 to <50 acres (10.1 to  10 to <25 acres (4 to <1  3 to <10 acres (1.2 to <4  x 0.3 to <30 acres (0.12 to  0.1 to <0.3 acres (0.04 to  <0.1 acres (0.04ha) (0 p	ots) <20.2ha) (5 pts) 0.1ha) (4 pts) tha) (3 pts) <1.2ha) (2pts) o <0.12ha) (1 pt)	0.57 acres		
	5 7	Metric 2. Uplan	d buffers and surro	unding land use.		
max 14 pts.	subtotal	WIDE. Buffers average MEDIUM. Buffers avera x NARROW. Buffers aver VERY NARROW Buffer 2b. Intensity of surrour VERY LOW. 2nd growth x LOW. Old field (>10 yea x MODERATELY HIGH. F	50m (164ft) or more around wetlage 25m to <50m (82 to <164ft) at age 10m to <25m (32ft to <82ft) is average <10m (<32ft) around to did a support of the supp	round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) louble check and average. h, wildlife area, etc. (7) owth forest. (5) conservation tillage, new fallow field. (3)		
	8.0 15.0	Metric 3. Hydro	ology.			
max 30 pts.	subtotal	None or none apparent Recovered (7)  x Recovering (3)  Recent or no recovery (1)	rface water (3) (lake or stream) (5) pth. Select one. fin) (2) tural hydrologic regime. Score (12)	tile X filling dike X road weir X dred stormwater input Other	an use (1) complex (1) ). Score one or dbl check. urated (4)  (12in) (1)  t source (nonstormwater) J/grading bed/RR track ging	
max 20 pts.	subtotal	None or none apparent ( Recovered (3)  x Recovering (2) Recent or no recovery (' 4b. Habitat developme  Excellent (7)  Very good (6) Good (5) Moderately good (4)  x Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. \$ None or none apparent ( Recovered (6)  x Recovering (3) Recent or no recovery ('	nt. Select only one and assign  Score one or double check and	score.    average.	b/sapling removal aceous/aquatic bed remova mentation ging ing ent enrichment	al
	23	OPAM v 5 0 Field Form	Overtitetive Beties			

Site: Croo	ksville- Ne	ewark Project	Rater(s): Audrey F	lanner		Date:	9/22/2020
		·			Field Id:		
	23	3]			w-aeh-20200922-02		
	subtotal thi	s page					
	0 23	Metric 5. Spe	cial Wetlands.				
max 10 pts.	subtotal	Check all that a	pply and score as indica	ted.			
		Bog (10)	,				
		Fen (10)					
		Old growth forest (10) Mature forested wetla					
			itary wetland-unrestricted hydrolo	ogy (10)			
			itary wetland-restricted hydrology	y (5)			
			ies (Oak Openings) (10)				
		Relict Wet Praires (10	i) ate/federal threatened or endange	ered sneci	ies (10)		
			congbird/water fowl habitat or usa		(10)		
		Category 1 Wetland.	See Question 5 Qualitative Rating	g (-10)			
	-2 21	Metric 6. Plan	t communities, inter	rspers	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cov		
		Score all present usin	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed 1 Emergent		1	Present and either comprises small pa vegetation and is of moderate quality, or		
		Shrub			significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significar	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality o	r comprises a small	
		Open water			part and is of high quality  Present and comprises significant part.	ar mara af watlandla 2	
		Other 6b. horizontal (plan v	view) Interspersion.	3	vegetation and is of high quality	, or more, or welland's 3	
		Select only one.	,		9,		
		High (5)			Narrative Description of Vegetation		
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3) Moderately low (2)			disturbance tolerant native species  Native spp are dominant component of	the vegetation mod	
		Low (1)			although nonnative and/or disturbance		
		x None (0)			can also be present, and species diver		
		6c. Coverage of inva			moderately high, but generallyw/o pres	ence of rare	
		Table 1 ORAM long for or deduct points for co			threatened or endangered spp to  A predominance of native species, with	nonnative enn high	
		Extensive >75% cove			and/or disturbance tolerant native spe		
		x Moderate 25-75% cov			absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (			the presence of rare, threatened, or en	dangered spp	
		Nearly absent <5% co	over (0)		Mudflat and Open Water Class Quali	4.,	
		Absent (1) 6d. Microtopography	1.	0	Absent <0.1ha (0.247 acres)	ty	
		Score all present usin			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	5)	
		0 Coarse woody debris		3	High 4ha (9.88 acres) or more		
		0 Standing dead >25cm 0 Amphibian breeding p			Microtopography Cover Scale		
		Amphibian breeding p	0013	0	Absent		
					Present very small amounts or if more	common	
					of marginal quality		
Category 1				2	Present in moderate amounts, but not quality or in small amounts of highest of		
Category 1	24 CDAN	D TOTAL (may 400 4	• )			· · · · · · · · · · · · · · · · · · ·	
	ZIIGKAN	D TOTAL(max 100 pts	>)	3	Present in moderate or greater amount	S	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 002

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 002

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 002

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



#### Wetland 002

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 002

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



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

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-04
Investigator(s): AEH, WRL	Section, Township, Range: S 20 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N Lat	t.: 39.76684 Long.: -82.09656 Datum: NAD83
Soil Map Unit Name: Ds - Dumps, mine	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
	intly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation ☐ , Soil ✔ , or Hydrology ☐ naturally	y problematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No O	
Hydric Soil Present? Yes No O	Is the Sampled Area Yes No
Wetland Hydrology Present? Yes   No   No	within a Wetland?
extends to east into woodlot. Mapped soil unit of Dumps=disturbed Hydrology	a sons, within 100 year neoapidin – potentially problematic sons.
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply  Surface Water (A1)  True Aquatic Pla	
High Water Table (A2)  Hydrogen Sulfid	
	pheres along Living Roots (C3)  Moss Trim Lines (B16)
Water Marks (B1) Presence of Rec	duced Iron (C4)
	duction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift deposits (B3)  Thin Muck Surfa	
☐ Algal Mat or Crust (B4) ☐ Other (Explain ii ☐ Iron Deposits (B5)	n Remarks) Stunted or Stressed Plants (D1)  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)	): <u> </u>
Water Table Present? Yes O No O Depth (inches)	):
Saturation Present?  (includes capillary frings)  Yes No Depth (inches)	): Wetland Hydrology Present? Yes   No ○
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	
	nary sources of hydrology are overbank flow from perennial stream 001 (Moxahala
Creek) and precipitation and concentration of surface runoff in ged to Muskingum River, a TNW.	morphic position. Wetland abuts perennial stream Moxahala Creek that flows north
to Maskingan Titror, a Titro	

			ominant		Sampling Point: w-aeh-20200922-04
Tree Stratum (Plot size: 30' r )	Absolute % Cover	R.	pecies? = el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: (A)
2	0		0.0%		Total Number of Dominant
3			0.0%		Species Across All Strata:2(B)
4			0.0%		
5			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0		0.0%		That are OBL, FACW, OF FAC:
7	0		0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	Ο	= To	otal Cover		0BL speci es x 1 =1
4.0.111	1		100.0%	OBL	FACW species 97 x 2 = 194
1. Salix nigra			0.0%	UBL	FAC speciles <u>2</u> x 3 = <u>6</u>
2			0.0%		FACU species $\frac{7}{28}$ x 4 = $\frac{28}{2}$
3			0.0%		UPL speci es
4			0.0%		Col umn Total s: 107 (A) 229 (B)
5			0.0%		Total of Tot
6			0.0%		Prevalence Index = B/A = 2.140
7					Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
10		_	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= To	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	0	Ш	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), regardless
_Herb Stratum_ (Plot size: _5' r)	0	= To	otal Cover		of height.
1. Phalaris arundinacea	95	<b>✓</b>	89.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Apocynum cannabinum	5		4.7%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Asclepias syriaca	2		1.9%	FACU	regardless of size, and all other plants less than 3.28 ft tall.
4. Euthamia graminifolia	2		1.9%	FAC	Woody vines - Consists of all woody vines greater than 3.28 ft
5. Scirpus cyperinus	2		1.9%	FACW	in height.
6.	0		0.0%		Five Vegetation Streets
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 woody vines, approximately 20 ft (6 m) or more in height and less than
11.	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum - Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15' r )	106	= To	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
1	0		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2			0.0%		in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4			0.0%		height.
5	0		0.0%		Hydrophytic
6	0		0.0%		Vegetation Ves (A) No (C)
	0	= T	otal Cove		Present? Yes VINO V
Remarks: (Include photo numbers here or on a separate she	et.)				
Hydrophytic vegetation indicator present as rapid test, dominant spe		1			

Sampling Point:

w-aeh-20200922-04

Depth		Matrix	0/	0.1		edox Featu		1	T- 1	<b>5</b>		
(inches) 0-6	Color_ 10YR	(moist) 4/2	90	Color	(moist) 4/6	<u>%</u> 10	<u>Tvpe</u> C	Loc <sup>2</sup>	Texture Silt Loam	Remarks distinct redox		
						_				concentrations prominent redox		
6-12	2.5Y	5/2	80	10YR	4/4	20	C	PL	Sandy Clay Loam	concentrations prominent redox		
2-18	2.5Y	5/1	75	10YR	4/4	25	C	PL	Sandy Clay	concentrations		
		-										
_			_		_	_				<u> </u>		
_												
e: C=Con	centration.	D=Depletion	on. RM=Redu	ced Matrix,	CS=Cover	ed or Coate	ed Sand Grain	ns ²Locat	tion: PL=Pore Lining. M	=Matrix		
ric Soil I Histosol (	ndicators:			□ Dor	k Surface	(\$7)				oblematic Hydric Soils <sup>3</sup> :		
Histic Epipedon (A2)					value Belo	ow Surface	(S8) (MLRA 1		2 cm Muck (A			
☐ Black Histic (A3) ☐ Thin Dark Surface (S9) (MLRA 147, 148) ☐ Hydrogen Sulfide (A4) ☐ Loamy Gleyed Matrix (F2)						18)	(MLRA 147,14	48)				
Stratified Layers (A5) Depleted Matrix (F3)							Piedmont Floo (MLRA 136, 1	odplain Soils (F19) 147)				
☐ 2 cm Muck (A10) (LRR N) ☐ Redox Dark Surface (F6) ☐ Depleted Below Dark Surface (A11) ☐ Depleted Dark Surface (F7)							Very Shallow	Dark Surface (TF12)				
	Below Dark		A11)			: Surface (F sions (F8)	/)		Other (Explain in Remarks)			
Sandy Mu	k Surface (A ck Mineral (		٧,	☐ Iron			(F12) (LRR N	l,				
MLRA 147	yed Matrix	(\$4)				ce (F13) (M	LRA 136, 122	2)				
Sandy Re		(34)		_			s (F19) (MLR.		<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,			
-	Matrix (S6)						) (MLRA 127		wetland unles	n hydrology must be present, ss disturbed or problematic.		
trictive L	ayer (if ob	served):										
Туре:									Lividaia Cail Danasa	+2		
Depth (inc	hes):								Hydric Soil Presen	t? Yes • No O		
ric soil ind	dicator pre	esent as lo	ow chroma	'high value	matrix v	vith comm	non promine	ent redox	concentrations in po	ore linings in sandy soil.		

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey	Hanner	Dat	e: 9/22/202
		-		Field Id:	•	
	2 2	Metric 1. Wet	land Area (size).	w-aeh-202	200922-04	
max 6 pts	subtotal	Select one size clas	s and assign score.			
		>50 acres (>20.2ha) 25 to <50 acres (10.1	· · ·	0.86	acres	
		10 to <25 acres (4 to	, , , ,			
		3 to <10 acres (1.2 to				
		x 0.3 to <3 acres (0.12 0.1 to <0.3 acres (0.0				
		<0.1 acres (0.04ha) (	0 pts)			
	5 7	Metric 2. Upl	and buffers and su	rrounding land use	e.	
max 14 pts.	subtotal	2a. Calculate averaç	je buffer width. Select only o	ne and assign score. Do no	t double check.	
			ge 50m (164ft) or more around erage 25m to <50m (82 to <16		(4)	
			verage 25m to <50m (62 to < 16 verage 10m to <25m (32ft to <	,	` '	
		VERY NARROW. Bu	ffers average <10m (<32ft) are	ound wetland perimeter (0)		
			ounding land use. Select one		ge.	
			wth or older forest, prairie, sav /ears), shrubland, young seco			
			H. Residential, fenced pasture,		w fallow field. (3)	
		HIGH. Urban, industr	ial, open pasture, row cropping	, mining, construction. (1)		
	10.0 17.0	Metric 3. Hyd	rology.			
max 30 pts.	subtotal	3a. Sources of Water	r. Score all that apply.	3b. Connectivit	y. Score all that apply.	
		High pH groundwater		x 100 year floodpl		
		Other groundwater (3 x Precipitation (1)	")		n/lake and other human use (1) upland (e.g. forest), complex (	
		Seasonal/Intermitten	` '	Part of riparian of	or upland corridor (1)	
		Perennial surface wa 3c. Maximum water	ter (lake or stream) (5)		undation/saturation. Score on nently inundated/saturated (4)	ne or dbl check.
		>0.7 (27.6in) (3)	deptil. Delect one.		ated/saturated (3)	
		0.4 to 0.7m (15.7 to 2	7.6in) (2)	Seasonally inun		
		x <0.4m (<15.7in) (1) 3e. Modifications to	natural hydrologic regime.		rated in upper 30cm (12in) (1) and average.	
		None or none appare		Check all distu	rbances observed	
		x Recovered (7) x Recovering (3)		x ditch tile	x point source (r x filling/grading	nonstormwater)
		Recent or no recover	y (1)	dike	x road bed/RR t	rack
				weir	x dredging	
	0 05	7 Madria 4 Hab	!4-4 Al44!	stormwater inpu	other:	
	8 25	4	itat Alteration and	-		
max 20 pts.	subtotal	None or none appare	bance. Score one or double nt (4)	check and average.		
		Recovered (3)	(.)			
		x Recovering (2) Recent or no recover	v (1)			
			y ( ı ) nent. Select only one and as	sign score.		
		Excellent (7)	•	•		
		Very good (6) Good (5)				
		Moderately good (4)				
		x Fair (3) Poor to fair (2)				
		Poor (1)				
			n. Score one or double chec	· ·	aanaa ahaanus i	
		None or none appare Recovered (6)	กเ (ล)	x mowing	pances observed x shrub/sapling	removal
		x Recovering (3)		grazing	herbaceous/ac	quatic bed removal
		Recent or no recover	y (1)	x clearcutting x selective cutting	x sedimentation dredging	
				x selective cutting x woody debris re		
		<b>-</b>		toxic pollutants	nutrient enrich	ment
	25		<b>.</b>			
	subtotal this	page ORAM v. 5.0 Field Fo	orm Quantitative Rating			

w-aeh-20200922-04 oram.xlsm | test\_Field

Site: Croo	ksville- Ne	wark Project	Rater(s): Audrey	Hanner		Date:	9/22/2020
		<u> </u>			Field Id:		
	25	5			w-aeh-20200922-04		
	subtotal this	s page					
	0 25	Metric 5. Spec	cial Wetlands.				
max 10 pts.	subtotal	Check all that ap	ply and score as indica	ated.			
		Bog (10)	, ,				
		Fen (10)					
		Old growth forest (10)  Mature forested wetlar	od (E)				
			tary wetland-unrestricted hydro	logy (10)			
			tary wetland-restricted hydrolog				
			es (Oak Openings) (10)				
		Relict Wet Praires (10)			(40)		
			te/federal threatened or endang ongbird/water fowl habitat or us		es (10)		
			see Question 5 Qualitative Ratir				
	-3 22			• . ,	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cov	er Scale	
		Score all present using	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed		1	Present and either comprises small par		
		1 Emergent Shrub			vegetation and is of moderate quality, on significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significant	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality o		
		Open water			part and is of high quality		
		Other		3	Present and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan v Select only one.	iew) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)			disturbance tolerant native species	: 41	
		Moderately low (2) x Low (1)			Native spp are dominant component of although nonnative and/or disturbance		
		None (0)			can also be present, and species diver-		
		6c. Coverage of invas	sive plants. Refer		moderately high, but generallyw/o pres		
		Table 1 ORAM long fo			threatened or endangered spp to		
		or deduct points for co			A predominance of native species, with		
		x Extensive >75% cover Moderate 25-75% cover			and/or disturbance tolerant native spp a absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (-			the presence of rare, threatened, or en		
		Nearly absent <5% co	ver (0)		· · ·	.,	
		Absent (1)			Mudflat and Open Water Class Quali	ty	
		6d. Microtopography Score all present using			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/			Moderate 1 to <4ha (2.47 to 9.88 acres	<u>.)</u>	
		Coarse woody debris >			High 4ha (9.88 acres) or more		
		0 Standing dead >25cm					
		Amphibian breeding po	ools	0	Microtopography Cover Scale		
					Absent Present very small amounts or if more	common	
				'	of marginal quality	55IIIOII	
				2	Present in moderate amounts, but not		
Category 1					quality or in small amounts of highest q	uality	
	22 GRANI	D TOTAL(max 100 pts	5)	3	Present in moderate or greater amount	s	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 003

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



#### Wetland 003

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 003

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 003

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





### PHOTOGRAPHIC RECORD

**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 003

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-No	orth Newark 138 kV Tran	smission Line	City/County:	Perry		Sampl	ling Date: 22-Sep-20
Applicant/Owner: AEP				State: OH		Sampling Po	vint: w-aeh-20200922-01
Investigator(s): AEH, WRL			Section, Town	nship, Range: S	21	T 14N	R 14W
Landform (hillslope, terrace	, etc.): Floodplain		Local relief (cor	ncave, convex, no	one):	concave	Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA):	LRR N	Lat.:	39.76567	Long	g.: -82.(	09622	Datum: NAD83
Soil Map Unit Name: Ds -	Dumps, mine				NW	'I classification:	N/A
Are climatic/hydrologic con	——— ditions on the site typ	cal for this time of ye	ear? Yes 💿 I	No O (If no,	explain i	n Remarks.)	
Are Vegetation . , So	il 🗹 , or Hydrolo	gy 🗌 significant	ly disturbed?	Are "Normal (	Circumst	ances" present	? Yes ⊙ No O
Are Vegetation . , So	il 🗹 , or Hydrolo	gy 🗌 naturally p	problematic?	(If needed, e	xplain ar	ny answers in R	emarks.)
Summary of Finding	gs - Attach site	map showing s	ampling po	int locations	s, tran	sects, impo	ortant features, etc.
Hydrophytic Vegetation Pr	esent? Yes •	No O					
Hydric Soil Present?		No O		Sampled Area ,	Yes •	No ()	
Wetland Hydrology Presen	t? Yes •	No O	within	a Wetland?	105 -	110 0	
Sample point w-aeh-2020 (Stream 001). Wetland ex Hydrology							
Wetland Hydrology Indica	tors:				Secondar	y Indicators (mini	imum of two required)
Primary Indicators (minim Surface Water (A1) High Water Table (A2)	um of one required; o	True Aquatic Plants Hydrogen Sulfide C	Odor (C1)		Spars	ce Soil Cracks (B6 sely Vegetated Col age Patterns (B10	ncave Surface (B8)
Saturation (A3)		Oxidized Rhizosphe		loots (C3)		Trim Lines (B16)	
Water Marks (B1) Sediment Deposits (B2)		Presence of Reduction Recent Iron Reduction	` ,	(04)		eason Water Tabl ish Burrows (C8)	le (C2)
Drift deposits (B3)		Thin Muck Surface		(00)		, ,	erial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in R	` '			ed or Stressed Pla	0 3 . ,
Iron Deposits (B5)			,			norphic Position ([	02)
Inundation Visible on Aer						ow Aquitard (D3)	
Water-Stained Leaves (BS Aquatic Fauna (B13)	')					topographic Relie neutral Test (D5)	f (D4)
Field Observations:					V I MU-I	leutiai rest (Do)	
Surface Water Present?	Yes ○ No •	Depth (inches):	0				
Water Table Present?	Yes ○ No •	Depth (inches):					
Saturation Present?	Yes ○ No ●	Depth (inches):		Wetland Hydro	ology Pre	esent? Yes	No O
(includes capillary fringe)  Describe Recorded Data (s			os, previous insp	ections), if availa	able:		
Remarks:							
One primary and one seco Creek) and precipitation at to Muskingum River, a TN'	nd concentration of su						

			ominant		Sampling Point: w-aeh-20200922-01
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	ecies? = el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  1 (A)
2	0		0.0%		Total Number of Deminent
3			0.0%		Total Number of Dominant Species Across All Strata:1 (B)
4			0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6			0.0%		That Are OBE, FACW, OF FAC.
7	0		0.0%		Prevalence Index worksheet:
8		Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	0	= To	otal Cover	•	OBL speci es <u>25</u> x 1 = <u>25</u>
1.			0.0%		FACW speci es x 2 =178
2.			0.0%		FAC speci es $3 \times 3 = 9$
3.			0.0%		FACU speci es $10$ x 4 = $40$
4			0.0%		UPL speci es x 5 =
5.			0.0%		Column Totals: 127 (A) 252 (B)
6.			0.0%		Prevalence Index = B/A = 1.984
7			0.0%		
8.			0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9			0.0%		Dominance Test is > 50%
10			0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Tc	tal Cover		
	0	П	0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. 3.	0	$\Box$	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.		$\Box$	0.0%		be present, unless disturbed or problematic.
		$\Box$	0.0%		Definition of Vegetation Strata:
5 6	0	$\Box$	0.0%		Four Vegetation Strata:
	0	$\Box$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		 = To	otal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: 5' r		<b>✓</b>	55.1%		Sapling/shrub stratum – Consists of woody plants, excluding
1. Phalaris arundinacea	70			FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Leersia oryzoides		$\Box$	15.7%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. Panicum dichotomiflorum	15		7.9%		Woody vines – Consists of all woody vines greater than 3.28 ft
4. Echinochloa crusgalli	5	$\Box$	3.9%	OBL	in height.
Persicaria hydropiper     Persicaria pensylvanica	3	$\Box$	2.4%	FACW	
7. Rumex crispus	3	$\Box$	2.4%	FAC	Five Vegetation Strata:
Symphyotrichum lateriflorum	1	$\Box$	0.8%	FACW	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	$\Box$	0.0%	17.07	diameter at breast height (DBH).
9	0	$\Box$	0.0%		Sapling stratum – Consists of woody plants, excluding woody
10	0	$\Box$	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11 12	0	$\Box$	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		 = To	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size: 15' r )					Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1			0.0%		species, except woody vines, less than approximately 3 ft (1 m)
2			0.0%		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		0.0%		Vegetation Present? Yes No No
		= To	otal Cove	r	- 1 SSSHC
Remarks: (Include photo numbers here or on a separate she Hydrophytic vegetation indicator present as rapid test, dominant specific					

Sampling Point:

w-aeh-20200922-01

(inches)	0-1-	Matrix (maist)		0-1		edox Featu	1 -	1 2	Tt	5	anto
0-5	Color (	(moist) 4/3	80	Color (	moist) 5/1	20	<u>Tvpe</u> '. RM	Loc <sup>2</sup>	Texture Silt Loam	Rem	narks
										promi nent concentrat	redox
5-11	2.5Y	5/1	70	10YR	4/6	30		M	Sandy Loam	concentrat promi nent	
1-17	10YR	5/1	80	10YR	4/6	20	C	M	Sandy Clay	concentrat	
_	_				=			_		,	
			_								
e: C=Conc	centration. [	)=Depletic	on. RM=Red	uced Matrix,	CS=Cover	ed or Coate	ed Sand Grair	ns ²Locat	ion: PL=Pore Lining	. M=Matrix	
	ndicators:									Problematic Hydric	c Soils <sup>3</sup> :
Histosol (A					K Surface (					(A10) (MLRA 147)	
Black Histi				_			(S8) (MLRA 1 MLRA 147, 14			ie Redox (A16)	
	Sulfide (A4) Layers (A5)	į			ny Gleyed leted Matr	Matrix (F2) ix (F3)	)		Piedmont I (MLRA 136	Floodplain Soils (F19) 5, 147)	
2 cm Muck	k (A10) (LRF	≀ N)				urface (F6)			☐ Very Shallo	ow Dark Surface (TF1	2)
	Below Dark		(11)			Surface (F	7)		Other (Exp	olain in Remarks)	
	k Surface (A					sions (F8)	(E10) (LDD N				
MLRA 147	,		٧,	MLR	A 136)		(F12) (LRR N				
	eyed Matrix (	(S4)					LRA 136, 122		<sup>3</sup> Indica	tors of hydrophytic ve	egetation and
Sandy Rec							(F19) (MLR		<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Stripped M	Matrix (S6)			☐ Red	Parent Ma	aterial (F21)	) (MLRA 127,	147)	ur	nless disturbed or pro	blematic.
	ayer (if obs	served):									
Type: Depth (inch	has).								Hydric Soil Pres	ent? Yes •	No O
marks:									-		
ic soil inc	dicator pre	sent as lo	ow chroma.	/high value	matrix v	vith comm	non promine	ent redox	concentrations in	matrix and pore lir	nings.

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: upl-aeh-20200922-01
Investigator(s): AEH, WRL	Section, Township, Range: S 21 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): flat Slope: 1.0 % / 45.0 °
Subregion (LRR or MLRA): LRR N Lat.	:: 39.76589 Long.: -82.09628 Datum: NAD83
Soil Map Unit Name: Ds - Dumps, mine	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
	ntly disturbed? Are "Normal Circumstances" present? Yes   No O
Are Vegetation . , Soil . , or Hydrology . naturally	problematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No  No	
Hydric Soil Present? Yes No •	Is the Sampled Area Yes O No •
Wetland Hydrology Present? Yes   No   No	within a Wetland?
	land 004, about 5' north of wetland boundary at higher elevation, in 100-year umps=disturbed soils, within 100-year floodplain = possibly problematic soils. Not a
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)	
Surface Water (A1)	
High Water Table (A2)  Hydrogen Sulfide	e Odor (C1) Drainage Patterns (B10)
	pheres along Living Roots (C3)
Water Marks (B1) Presence of Redu	
	uction in Tilled Soils (C6)
☐ Drift deposits (B3) ☐ Thin Muck Surfact ☐ Algal Mat or Crust (B4) ☐ Other (Explain in	
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)	: 0
Water Table Present? Yes O No O Depth (inches)	
Saturation Present? Vos No Ponth (inches)	Wetland Hydrology Present? Yes Wo Wo
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho	
Remarks:	
Two secondary hydrology indicators present.	

			ominant		Sampling Point: upl-aeh-20200922-01
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  3 (A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata: 3 (B)
4			0.0%		
5	0	$\square$	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6			0.0%		That Are OBE, FACW, OF FAC.
7	0	$\square$	0.0%		Prevalence Index worksheet:
8	0	Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	)	= Tc	otal Cover	-	0BL speci es x 1 =
1.			0.0%		FACW speci es x 2 =110
2.			0.0%		FAC speci es $\underline{50}$ x 3 = $\underline{150}$
3			0.0%		FACU speci es $20$ x 4 = $80$
4			0.0%		UPL speci es x 5 =
5.			0.0%		Column Totals: <u>125</u> (A) <u>340</u> (B)
6.			0.0%		Prevalence Index = B/A =2.720_
7			0.0%		
8.			0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
10			0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Tc	tal Cover	-	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	$\Box$	0.0%		data in Remarks or on a separate sheet)
2.	0	$\Box$	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.			0.0%		be present, unless disturbed or problematic.
5.			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.
Herb Stratum (Plot size: 5' r )	0	= Tc	tal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
4 "	30	<b>✓</b>	24.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
0 0 1 111	20		16.0%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody) plants,
Symphyotrichum pilosum     Euthamia graminifolia	15	<b>✓</b>	12.0%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
Setaria pumila	10		8.0%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft
5. Echinochloa crusgalli	10		8.0%	FACU	in height.
6. Solidago gigantea	10		8.0%	FACW	Five Venetation Streets
7. Symphyotrichum lateriflorum	10		8.0%	FACW	Five Vegetation Strata:
8. Panicum dichotomiflorum	5		4.0%	FACW	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. Andropogon virginicus	5		4.0%	FACU	diameter at breast height (DBH).
10. Andropogon gerardii	5		4.0%	FAC	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than
11. Ambrosia artemisiifolia	5		4.0%	FACU	3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15' r )	125	= Tc	tal Cover	-	vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants,
1.	0	$\Box$	0.0%		including herbaceous vines, regardless of size, and woody
		$\Box$	0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
2		$\Box$	0.0%		Woody vines – Consists of all woody vines, regardless of
3	0	$\Box$	0.0%		height.
4	0		0.0%		
5			0.0%		Hydrophytic
6	0		otal Cove	r	Vegetation Present? Yes No O
		. 10	ctal cove	•	l
Remarks: (Include photo numbers here or on a separate she Hydrophytic vegetation indicator present as dominance test > 50%,		ecies	s are FACW	/ and FAC	

upl-aeh-20200922-01

Sampling Point:

Soil

Depth	(De	escribe to Matrix	me depth r	ieeueu to (		the indica dox Featu		ıııııı ıne a	bsence of indicators.)		
_(inches)_	Color	(moist)	%	Color	(moist)	%	_Tvpe_1	_Loc2	Texture	Remarks	
0-4	2.5YR	5/3	100						Silt Loam		
4-16	10YR	4/6	80	2.5Y	5/2	20	D	М	Sandy Loam		
		`									
		·			•	•				-	
		`			•		•				
		·									
<sup>1</sup> Type: C=Con	centration. [	D=Depletic	n. RM=Redu	ced Matrix,	CS=Covere	ed or Coated	d Sand Graii	ns <sup>2</sup> Locati	ion: PL=Pore Lining. M=N	latrix	
Hydric Soil I	ndicators:								Indicators for Prob	lematic Hydric Soil	s <sup>3</sup> :
Histosol (					k Surface (				2 cm Muck (A10		
	pedon (A2)			Poly	value Belo	w Surface (	S8) (MLRA 1	147,148)	Coast Prairie Red		
Black Hist						ace (S9) (M	LRA 147, 14	48)	(MLRA 147,148)	10X (A16)	
	Sulfide (A4)					Matrix (F2)			Piedmont Floodp	olain Soils (F19)	
	Layers (A5)				leted Matri				(MLRA 136, 147)		
	k (A10) (LRI				ox Dark Su				Very Shallow Da	rk Surface (TF12)	
	Below Dark	,	.11)			Surface (F7	')		Other (Explain in	ı Remarks)	
	k Surface (A				ox Depress		E10) (LDD N				
Sandy Mu MLRA 147	ck Mineral ( ', 148)	S1) (LRR N	١,	MLR	RA 136)	se Masses (I					
Sandy Gle	yed Matrix	(S4)		_		e (F13) (ML			3	Charles Paracolate	to a second
Sandy Re	dox (S5)			☐ Pied	dmont Floo	dplain Soils	(F19) (MLR	A 148)	wetland hy	f hydrophytic vegetat /drology must be pres	ion and sent,
Stripped N	Matrix (S6)			Red	Parent Ma	aterial (F21)	(MLRA 127	, 147)	unless c	disturbed or problema	ntic.
Restrictive La	ayer (if ob:	served):									
Туре:											
Depth (incl	nes):								Hydric Soil Present?	Yes ○ No	•
Remarks:											
No hydric soil	indicators	nresent									
ivo riyane son	maicators	ргезепт.									

Metric 1. Wetland Area (size).  Solect one size class and assign score.  **P0 acros (*20,00) (6 refs) 20 to \$50 acros (*10 to \$10,00) (5 refs) 20 to \$50 acros (*10 to \$10,00) (5 refs) 20 to \$50 acros (*10 to \$10,00) (5 refs) 20 to \$50 acros (*10 to \$10,00) (6 refs) 20 to \$50 acros (*10 to \$10,00) (5 refs) 20 to \$50 acros (*10 to \$10,00) (5 refs) 20 to \$10 acros (*12 to *140) (3 refs) 20 to \$10 acros (*12 to *140) (3 refs) 20 to \$10 acros (*12 to *140) (3 refs) 20 to \$10 to \$10 acros (*10 to *10 acros (*10 to *1	Site: Cro	oksville- Nev	wark Project	Rater(s): Audrey	Hanner	Date:	9/22/2020
Select one situe date and sasign score.  X Select one situe date (a) (a) (b) (b) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c) (c) (c			•	• • • • • • • • • • • • • • • • • • • •	Field ld:	•	
-50 acres (10 to 20 Zam) (6 phs) -50 acres (10 to 20 Zam) (5 pts) -50 acres (10 to 20 Zam) (5 pts) -50 acres (10 to 40 Zam) (5 pts) -50 acres (10 to 40 Zam) (5 pts) -50 acres (10 to 40 Zam) (2 pts) -50 acres (00 46 to 40 Zam) (5 pts) -50 acres (00 46 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 24 to 40 Zam) (1 pts) -50 acres (00 Zam) (1 pts) -50 acres (0		1 1	Metric 1. Wet	land Area (size).	w-aeh-20200922-01		
25 to -50 acres (to 1.1 to -20.2 ha) (5 pats)   10 to -52 acres (to 1.1 to 1.4 to 1.	max 6 pts	subtotal	Select one size clas	s and assign score.	x		
10 to -25 acres (a to -10, tha) (a pbs)   3 to -2 acres (0 to -10, than) (a pbs)   0.3 to -3 acres (0.12 to -1.27a) (pbs)   0.3 to -1.27a) (p					0.18 acres	s	
Co 20 to <3 acres (0.12 to <1.2ma) (pipes)				, , , ,			
Solidary   Control   Con							
Metric 2. Upland buffers and surrounding land use.  2a. Calculate average buffer with. Select only one and assign acors. Do not double check.  Wiles Buffers average 50m (540) or more around weltand perimeter (7)  MEDIUM. Buffers average 50m (540) or more around weltand perimeter (1)  X NARROW. Buffers average 50m (540) or (250 to 1540) around weltand perimeter (1)  VERY NARROW. Buffers average (10m (520)) around weltand perimeter (1)  2b. Intensity of surrounding land use. Section or double check and average.  VERY LOW. On field (10) uses; survivalne, young second growth forest. (50)  X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new failow field. (3)  High (10 man, instance)  B.O. 14.0  Metric 3. Hydrology.  3a. Sources of Water. Score all that apply.  High pit goundwater (8)  Seasonal/Informatient surface water (3)  Perennial surface water (alse or stream) (6)  3c. Maximum water depths. Select one.  3d. Duration inundation/saturated (3)  A to Jor (7 or 70n) (3)  A to Jor (7 or 70n) (2)  X d. An (15 /70 or 70n) (2)  X d. An (15 /70 or 70n) (2)  X d. An (15 /70 or 70n) (2)  Recovered (7)  Recovered							
2. Calculate average buffer width. Select only one and assign score. Do not double check.  WIDE Buffers average S0m (14M) or more around welland perimeter (?)  WIDE Buffers average S0m (14M) or more around welland perimeter (?)  WIDE Buffers average S0m (14M) or more around welland perimeter (?)  WIDE Buffers average S0m (14M) or S0m (25M) around welland perimeter (?)  WERY MARROW, Buffers average <10m (<25M) around welland perimeter (?)  2. Intensity of surrounding land tues. Select one of double check and average.  WERY LOW. Old feel (?) hyears, shruthard, young second growth forest. (?)  WODERATECH YHIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)  #HIGH Urban, industrial, open pasture, owr corpling, finding, construction. (1)  Bacurous of Water. Score all that apply.  3. Sources of Water. Score all that apply.  4. Sources of Water. Score all that app			<0.1 acres (0.04ha) (	) pts)			
WIDE. Buffers average 50m (164fl) or more around vetland perimeter (7)		5 6	Metric 2. Upla	and buffers and su	rrounding land use.		
MEDIUM. Buffers average 25m to <50m (82 to <164R) around wetland perimeter (4)  X NARROW. Buffers average of 10m (<32P) around wetland perimeter (7)  VERY NARROW. Buffers average of 10m (<32P) around wetland perimeter (7)  2b. Intensity of surrounding land use. Select one or double check and average.  VERY LOW. 2nd growth or older forest, prairie, savannah, widfille area, etc. (7)  X LOW. 2nd growth or older forest, prairie, savannah, widfille area, etc. (7)  X MODERATELY HIGH. Residential, fenced pasture, park, conservation fillage, new failow field. (3)  Helfel Utban, industrial, open pasture, now cropping, mining, construction. (1)  Base South of the Company of the Comp	max 14 pts.	subtotal	2a. Calculate averag	e buffer width. Select only o	ne and assign score. Do not double check	<b>c.</b>	
NARROW, Buffers average from to <25m (32ft to <28th) around wetland perimeter (1)							
2b. Intensity of surrounding land use. Select one or double check and average.    EFPY LOW. 2nd growth or older forest, prairie, savarnaria, wildlife see, etc. (7)   LOW. Out field (7 by seas), shruband, young second growth forest, (3)   MODERATELY HIGH. Residential, fenced pasture, park, conservation fillage, new fallow field. (3)   HiGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)   Metric 3. Hydrology.   Sa. Sources of Water. Score all that apply.   Sa. Sources of Water. Score all that apply.   Seasonall/Intermittent surface water (3)   Seasonall				` `	, , , , , , , , , , , , , , , , , , , ,		
VERY LOW, Old field (c) ly years), shrubdand, young second growth forest, [5]							
X   LOW, Old field (~10 years), shrubland, young second growth forest. (5)							
X   MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)   HiGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)							
Metric 3. Hydrology.  3a. Sources of Water. Score all that apply.						3)	
3a. Sources of Water. Score all that apply.    High pit groundwater (5)   Cheer groundwater (5)   Cheer groundwater (7)   Percenial surface water (3)   Part of Invalidation (7)   Part			HIGH. Urban, industr	al, open pasture, row cropping	, mining, construction. (1)		
High pH groundwater (5)		8.0 14.0	Metric 3. Hyd	rology.			
Seasonal/Intermittent surface water (3)	max 30 pts.	subtotal	3a. Sources of Wate	r. Score all that apply.	3b. Connectivity. Score all that	at apply.	
Percepitation (1)   Percepitation (2)   Percepitation (3)   Percepitation (4)   Perc						s human upa (1)	
Seasonal/Intermittent surface water (3) Perennial surface water (3) Perennial surface water (3) 3. d. Maximum water depth. Select one.    >0.7 (27.6in) (3)   0.4 to 0.7m (15.7 to 27.6in) (2)   x < 0.4m (<15.7in) (1)   3a. Modifications to natural hydrologic regime. Score one or double check and average.   None or none apparent (12)   x   Recovering (3)   Recovering (3)   Recovering (3)   Recovering (3)   Recovering (2)   Recovering (2)   Recovering (2)   Recovering (3)   Recovering (4)   Recovering (5)   Recovering (6)   Recovering (7)   Recovering (8)   Recovering (8)   Recovering (8)   Recovering (9)   Recove				)		` '	
3c. Maximum water depth. Select one. 3c. Maximum water depth. Select one. 3c. Maximum water depth. Select one. 3c. Modification to a natural hydrologic regime. Score one or double check and average. None or none apparent (12)  Recovering (3)  Record or no recovery (1)  Welric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1)  Welric 5. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1)  Welric 6. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor to fair (2) Poor to fair (2) Recovered (6) Recovered (6) Recovered (7) Recovered (7) Recovered (8) Recovered (9) Recovered			Seasonal/Intermittent	` '	Part of riparian or upland corrid	or (1)	
Do 7 (27 film) (3)  0.4 to 0.7 m (16.7 to 27.6in) (2)  x <0.4 m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12)  max 20 pts.  Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4)  Recovered (3)  x Recovering (2)  None or none apparent (4)  4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  x Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovering (3)  Recovering (4)  Recovering (5)  Recovering (6)  Recovering (7)  Recovering (8)  Recovering (8)  Recovering (9)  Recovering (9)  Recovering (1)  R							neck.
30.4m (<15.7in) (1)				deptil. Delect one.			
3e. Modifications to natural hydrologic regime. Score one or double check and average.  None or none apparent (12) Recovered (7) Recovered (3) Recent or no recovery (1)  Mature 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovering (3) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) Poor (1) Recovered (8) Recovered (9) Recovered (9) Recent or no recovery (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6)				7.6in) (2)		20 (40:) (4)	
None or none apparent (12)				natural hydrologic regime. S		30cm (12ln) (1)	
Recovering (3)			None or none appare		Check all disturbances obser		
Recent or no recovery (1)    dike   weir   stormwater input   weir   stormwater input   Stormwater input   Weir   stormwater input   Stormwater input   Other:    Metric 4. Habitat Alteration and Development.    4a. Substrate disturbance. Score one or double check and average.			` '		<b>├</b>		er)
Stormwater input   Other:				y (1)			
Metric 4. Habitat Alteration and Development.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) X mowing Recovering (3) Recent or no recovery (1) X selective cutting X selective cutting Woody debris removal Internation Inte					<u> </u>		
Max 20 pts.  4a. Substrate disturbance. Score one or double check and average.  None or none apparent (4) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat atteration. Score one or double check and average.  None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat atteration. Score one or double check and average.  None or none apparent (9) Recovering (3) Recovering (4) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (9) Recove		ol aa	1 Matria 4 Hala	itat Altavation and		Other.	
None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)  X clearcutting X selective cutting X woody debris removal Loxic pollutants  Active Characteristics Active Characteristi		<u> </u>	4		-		
Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4)  x Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) x Recovered (6) x Recovering (3) Recent or no recovery (1)  Recent or no recovery (1)  Recovered (6) x Selective cutting x Sedimentation	max 20 pts.	subtotal			check and average.		
Recent or no recovery (1) 4b. Habitat development. Select only one and assign score.  Excellent (7) Very good (6) Good (5) Moderately good (4)  x Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) x Recovered (6) x Recovering (3) Recent or no recovery (1) x Selective cutting x woody debris removal x farming x word pollutants  122			Recovered (3)	( )			
4b. Habitat development. Select only one and assign score.  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  x Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x mowing  x shrub/sapling removal  x Recovering (3)  Recent or no recovery (1)  x selective cutting  x woody debris removal  x farming  nutrient enrichment				u (1)			
Very good (6) Good (5) Moderately good (4)  x Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) x mowing x shrub/sapling removal x Recovering (3) Recent or no recovery (1) x clearcutting x sedimentation x sedimentation x selective cutting x woody debris removal x farming nutrient enrichment					sign score.		
Good (5)  Moderately good (4)  x Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) x Recovered (6) x Recovering (3) Recent or no recovery (1) x Recent or no recovery (1) x Recovered (6) x mowing y shrub/sapling removal herbaceous/aquatic bed removal clearcutting x sedimentation dredging x sedimentation dredging x woody debris removal x farming nutrient enrichment			` '				
Moderately good (4)  x Fair (3)  Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double check and average.  None or none apparent (9)  Recovered (6)  x Recovering (3)  Recent or no recovery (1)  Recent or no recovery (1)  Check all disturbances observed  x mowing  y shrub/sapling removal  grazing  y sedimentation  x sedimentation  x sedimentation  x sedimentation  x sedimentation  y sedimentation  x sedimentation  y sedimentation  nutrient enrichment			0 1(5)				
Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X mowing X shrub/sapling removal x Recovering (3) Recent or no recovery (1) X clearcutting X selective cutting X woody debris removal x farming nutrient enrichment			Moderately good (4)				
Poor (1) 4c. Habitat alteration. Score one or double check and average.  None or none apparent (9) Recovered (6) X mowing X shrub/sapling removal y prazing X second performance observed  Recovering (3) Recent or no recovery (1) X selective cutting X woody debris removal X farming X toxic pollutants  122							
None or none apparent (9)  Recovered (6)  X mowing  X shrub/sapling removal  grazing  herbaceous/aquatic bed removal  clearcutting  X selective cutting  Woody debris removal  toxic pollutants  Check all disturbances observed  X shrub/sapling removal  herbaceous/aquatic bed removal  a sedimentation  dredging  farming  nutrient enrichment			Poor (1)				
Recovered (6)  X mowing  Grazing  Recent or no recovery (1)  X selective cutting X woody debris removal  Toxic pollutants  X shrub/sapling removal herbaceous/aquatic bed removal x sedimentation dredging X mowing X shrub/sapling removal herbaceous/aquatic bed removal x sedimentation dredging x mowing x sedimentation dredging x mowing x sedimentation dredging x farming nutrient enrichment					•	ad	
Recovering (3) Recent or no recovery (1)  Recent				ii ( <i>9)</i>		=	
x selective cutting woody debris removal toxic pollutants dredging nutrient enrichment			x Recovering (3)	(4)	grazing	herbaceous/aquatic bed re	moval
x woody debris removal toxic pollutants farming nutrient enrichment			Recent or no recover	y (1)			
22					x woody debris removal x	farming	
			1		toxic pollutants	nutrient enrichment	
				ma Occantitative Detire			

w-aeh-20200922-01 oram.xlsm | test\_Field

Site: Crooksville- Newark Project Rater(s): Audrey	Hanner	Date: 9/22/2020
	Field Id:	
22	w-aeh-20200922-01	
subtotal this page		
0 22 Metric 5. Special Wetlands.		
max 10 pts. subtotal Check all that apply and score as indic	ated.	
Bog (10)		
Fen (10)		
Old growth forest (10)  Mature forested wetland (5)		
Lake Erie coastal/tributary wetland-unrestricted hydro	logy (10)	
Lake Erie coastal/tributary wetland-restricted hydrolog		
Lake Plain Sand Prairies (Oak Openings) (10)		
Relict Wet Praires (10)	vered exercise (10)	
Known occurrence state/federal threatened or endan Significant migratory songbird/water fowl habitat or us		
Category 1 Wetland. See Question 5 Qualitative Rati		
-2 20 Metric 6. Plant communities, inte	rspersion, microtopography.	
max 20pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation Community Co	over Scale
Score all present using 0 to 3 scale.	0 Absent or comprises <0.1ha (0.247	
Aquatic bed	Present and either comprises small	
1 Emergent Shrub	vegetation and is of moderate qualit significant part but is of low quality	, or comprises a
Forest	2 Present and either comprises significant	cant part of wetland's 2
Mudflats	vegetation and is of moderate qualit	
Open water	part and is of high quality	
Other	3 Present and comprises significant p	art, or more, of wetland's 3
<b>6b. horizontal (plan view) Interspersion.</b> Select only one.	vegetation and is of high quality	
High (5)	Narrative Description of Vegetation	n Quality
Moderately high(4)	Low spp diversity and/or predominal	ice of nonnative or low
Moderate (3)	disturbance tolerant native species	
Moderately low (2) Low (1)	Native spp are dominant componen although nonnative and/or disturban	•
x None (0)	can also be present, and species div	
6c. Coverage of invasive plants. Refer	moderately high, but generallyw/o pi	
Table 1 ORAM long form for list. Add	threatened or endangered spp to	
or deduct points for coverage  Extensive >75% cover (-5)	A predominance of native species, value and/or disturbance tolerant native species.	
x Moderate 25-75% cover (-3)	absent, and high spp diversity and o	
Sparse 5-25% cover (-1)	the presence of rare, threatened, or	
Nearly absent <5% cover (0)		
Absent (1)	Mudflat and Open Water Class Qu	ality
<b>6d. Microtopography.</b> Score all present using 0 to 3 scale.	0 Absent <0.1ha (0.247 acres) 1 Low 0.1 to <1ha (0.247 to 2.47 acres	<u></u>
Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47 to 9.88 ac	
0 Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or more	<del></del>
0 Standing dead >25cm (10in) dbh		
Amphibian breeding pools	Microtopography Cover Scale 0 Absent	
	Present very small amounts or if mo	re common
	of marginal quality	
	2 Present in moderate amounts, but n	
Category 1	quality or in small amounts of highes	t quality
20 GRAND TOTAL(max 100 pts)	3 Present in moderate or greater amo	ınts
	and of highest quality	



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 004

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



# Wetland 004

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

# Wetland 004

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 004

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 004

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-05
Investigator(s): AEH, WRL	Section, Township, Range: S 20 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N Lat.:	39.76545 Long.: -82.09571 Datum: NAD83
Soil Map Unit Name: W - Water	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes No (If no, explain in Remarks.)
	ly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation $\hfill \square$ , Soil $\hfill arPhi$ , or Hydrology $\hfill \square$ 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   No	
Hydric Soil Present? Yes   No   No	Is the Sampled Area Yes  No
Wetland Hydrology Present? Yes ● No ○	within a Wetland?
fully delineated. Mapped soil unit of Water is surrounded by mapped problematic soils.	mall depression in 100-year floodplain of Moxahala Creek (Stream 001). Wetland I soil unit of Dumps=disturbed soils, within 100-year floodplain = potentially
Hydrology	
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)	Drainage Patterns (B10)  Peres along Living Roots (C3)  Moss Trim Lines (B16)  Peres along Living Roots (C3)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  (C7)  Saturation Visible on Aerial Imagery (C9)
Field Observations:  Surface Water Present? Yes No Depth (inches):	0
Water Table Present? Yes No Depth (inches):	
Saturation Present?  (includes confillent friege)  Yes No   Depth (inches):	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial photo-	s, previous inspections), if available:
Remarks:	
	on. Wetland drains via culvert under roadway to north to Wetland 004, which on Muskingum River, a TNW.

			ominant		Sampling Point: w-aeh-20200922-05
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  1 (A)
2	0		0.0%		Total Number of Dominant
3		Ц	0.0%		Species Across All Strata: 1 (B)
4		Ц	0.0%		
5			0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6			0.0%		
7			0.0%		Prevalence Index worksheet:
8		Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	)	= 10	otal Cover	•	0BL speci es
1			0.0%		FACW species $95 \times 2 = 190$
2.			0.0%		FAC speci es x 3 =
3			0.0%		FACU speci es $\frac{11}{2}$ x 4 = $\frac{44}{2}$
4			0.0%		UPL speci es x 5 =
5			0.0%		Col umn Total s: 106 (A) 234 (B)
6.			0.0%		Prevalence Index = B/A =2.208_
7			0.0%		Hydrophytic Vegetation Indicators:
8.			0.0%		Rapid Test for Hydrophytic Vegetation
9.			0.0%		✓ Dominance Test is > 50%
10			0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= To	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.			0.0%	`	be present, unless disturbed or problematic.
5.			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), regardless
Herb Stratum (Plot size: 5' r )	0	= To	tal Cover		of height.
1. Phalaris arundinacea	95	<b>✓</b>	89.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Apocynum cannabinum			4.7%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Cirsium arvense	5		4.7%	FACU	regardless of size, and all other plants less than 3.28 ft tall.
4. Lactuca canadensis	1		0.9%	FACU	Woody vines - Consists of all woody vines greater than 3.28 ft
5.	0		0.0%		in height.
6.	0		0.0%		Five Vegetation Strata:
7	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8.	0		0.0%		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 less than
11	0		0.0%		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: 15' r )	106	= To	otal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody
2	0		0.0%		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	= T	otal Cove	r	Present? Yes No O
Remarks: (Include photo numbers here or on a separate shee	et )				I.
Hydrophytic vegetation indicator present as rapid test, dominant spec					

Soil

Sampling Point:

w-aeh-20200922-05

Depth <u>Matrix</u>	Redox Features	
(inches) Color (moist) %	Color (moist) % Type Loc2	Texture Remarks
		· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·
		· · · · · · · · · · · · · · · · · · ·
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		`
		· · · · · · · · · · · · · · · · · · ·
une: C-Concentration D-Depletion RM-R	educed Matrix, CS=Covered or Coated Sand Grains 2Locat	ion: PL –Pore Lining M–Matrix
ydric Soil Indicators:	Education (Matrix), 63–66Vered of Coated Sand Grains	
Histosol (A1)	☐ Dark Surface (S7)	Indicators for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147,148)	2 cm Muck (A10) (MLRA 147)
Black Histic (A3)	Thin Dark Surface (S9) (MLRA 147, 148)	Coast Prairie Redox (A16)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	(MLRA 147,148)
Stratified Layers (A5)	Depleted Matrix (F3)	Piedmont Floodplain Soils (F19)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)	(MLRA 136, 147)
	Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Redox Depressions (F8)	✓ Other (Explain in Remarks)
Thick Dark Surface (A12)	☐ Iron-Manganese Masses (F12) (LRR N,	
Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)	MLRA 136)	
Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and
1	Piedmont Floodplain Soils (F19) (MLRA 148)	wetland hydrology must be present,
Sandy Redox (S5)		
Sandy Redox (S5) Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.
Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.
Stripped Matrix (S6) estrictive Layer (if observed):	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.
Stripped Matrix (S6) strictive Layer (if observed): Type:	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.  Hydric Soil Present? Yes   No
Stripped Matrix (S6) estrictive Layer (if observed): Type: Depth (inches): emarks:		Hydric Soil Present? Yes  No
Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	Red Parent Material (F21) (MLRA 127, 147)  area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent a positions as this one, all with hydric soil indicators part of the positions are the positions as the position of the property of the prop	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): marks:  vel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed): Type: Depth (inches): marks: vel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): marks:  vel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): marks:  vel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): marks:  evel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): marks:  vel refusal at surface. Entire wetland urbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland curbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  estrictive Layer (if observed):  Type:  Depth (inches):  emarks:  ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6) strictive Layer (if observed): Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland curbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other
Stripped Matrix (S6)  strictive Layer (if observed):  Type: Depth (inches): emarks: ovel refusal at surface. Entire wetland turbed soils having indicators of hydro	area comprised of hard packed rock/stone/mixed fill phytic vegetation and wetland hydrology consistent	Hydric Soil Present? Yes No No No No No Soils available to excavate, consistent with with hydric soils likely at this location. Three other

		State: OH	Sampling Point: upl-aeh-20200922-04
	Section	on, Township, Range: S	20 T 14N R 14W
etc.): Floodplain	Local re	elief (concave, convex, n	one): convex Slope: 2.0 % / 63.4 °
LRR N	Lat.: 39.765	541 Lon	g.: -82.09577 Datum: NAD83
/ater			NWI classification: N/A
itions on the site typic	al for this time of year?	∕es ⊙ No O (If no,	explain in Remarks.)
, or Hydrology	y 🔲 significantly distur	bed? Are "Normal	Circumstances" present? Yes   No
, or Hydrology	naturally problema	atic? (If needed, e	explain any answers in Remarks.)
s - Attach site m	nap showing sampli	ing point location	s, transects, important features, etc.
		Is the Sampled Area	Yes ○ No ●
<sub>?</sub> Yes O No	o •	within a Wetland?	
ek (Stream 001). Mapp	ped soil unit of Water is sui	rrounded by mapped soi	
ore:			Secondary Indicators (minimum of two required)
[ C C Il Imagery (B7)	True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres along Presence of Reduced Iron ( Recent Iron Reduction in Ti Thin Muck Surface (C7) Other (Explain in Remarks)	g Living Roots (C3) (C4)	Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5)
	Depth (inches):	)	
Yes ○ No •	Depth (inches):		oloav Present? Yes ○ No •
Yes ○ No •	Depth (inches):	Wetiana нуаг 	ology Present? Yes 🔾 INU 😊
ream gauge, monitorin	g well, aerial photos, previo	ous inspections), if availa	able:
esent.			
	Attach  Ititions on the site typical  If I or Hydrology  I or Hydrology  I s - Attach site m  I seent? Yes O No  Yes O No  (upl-aeh-20200922-04)  2 yek (Stream 001). Mappoblematic soils. Not a w  Dors:  I or Hydrology  Yes O No  Yes O N	litions on the site typical for this time of year?	Altace    Second Content of the site typical for this time of year? Yes  No  (If no.

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

# Upland 004

			ominant		Sampling Point: upl-aeh-20200922-04
Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	R	pecies? el.Strat. over	Indicator Status	
1	0		0.0%	<u> </u>	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
2	0		0.0%		
3	0		0.0%		Total Number of Dominant
		$\overline{\Box}$	0.0%		Species Across All Strata: 4 (B)
4		$\Box$			Percent of dominant Species
5			0.0%		That Are OBL, FACW, or FAC: 25.0% (A/B)
6			0.0%		
7	0	$\sqcup$	0.0%		Prevalence Index worksheet:
8	0	Ш	0.0%		Total % Cover of: Multiply by:
(Dist. 2 45)	0 =	= To	otal Cove	г	OBL speci es x 1 =
Sapling-Sapling/Shrub Stratum (Plot size: 15' r					FACW species 7 x 2 = 14
1. Lonicera morrowii	15	<b>✓</b>	68.2%	FACU	FAC speciles 15 x 3 = 45
2. Rubus occidentalis	5	✓	22.7%	UPL	
3. Fraxinus pennsylvanica	2		9.1%	FACW	FACU speci es $105$ x 4 = $420$
4			0.0%		UPL speci es $\frac{5}{}$ x 5 = $\frac{25}{}$
5.			0.0%		Column Totals: <u>132</u> (A) <u>504</u> (B)
		$\overline{\Box}$	0.0%	·	
6					Prevalence Index = B/A = 3.818
7			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9	0	Ш	0.0%		☐ Dominance Test is > 50%
10			0.0%		Prevalence Index is ≤3.0 ¹
		= To	otal Cove	 r	
Shrub Stratum (Plot size:)			0.007		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2			0.0%		Problematic Hydrophytic Vegetation (Explain)
3	0	Ш	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5			0.0%		Definition of Vegetation Strata:
6.			0.0%	•	Four Vegetation Strata:
		$\Box$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		_		-	(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size: <u>5' r</u> )	0 =	= 10	otal Cove	r	of height.  Sapling/shrub stratum – Consists of woody plants, excluding
1. Solidago altissima	80	<b>✓</b>	76.2%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Setaria pumila	15		14.3%	FAC	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Dipsacus fullonum	10		9.5%	FACU	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
	0	$\overline{\Box}$	0.0%		in height.
5	0	$\Box$	0.0%		
6					Five Vegetation Strata:
7			0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8			0.0%		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 less than
11	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum - Consists of woody plants, excluding woody
		— = То	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size: 15' r )		_			Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1. Vitis riparia		<b>✓</b>	100.0%	FACW	species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
	0	$\Box$	0.0%		
5					Hydrophytic
6	0	Ш	0.0%		Vegetation Present? Yes No   No
	5	= T	otal Cove	er	11000Ht:
Remarks: (Include photo numbers here or on a separate s	sheet.)				
No hydrophytic vegetation indicators present as dominance test is	ŕ	min	ant specie	s are FACW.	, FAC and FACU, and prevalence index > 3.0

Soil

Sampling Point: upl-aeh-20200922-04

Profile Description: (Describe to the depth	needed to document the indicator or confirm the a	bsence of indicators.)
DepthMatrix	Redox Features 1	
(inches) Color (moist) %	Color (moist) %Tvpe_	Texture Remarks  Silt Learn gravel Ly
<b>0-3</b> 10YR 3/3 100		Silt Loam graverry
		`
		· · · · · · · · · · · · · · · · · · ·
		. ————
<sup>1</sup> Type: C=Concentration D=Depletion RM=Red	uced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Local	ion: PL=Pore Lining M=Matrix
	deed Matrix, C3=Covered or Coated Sand Grains Local	
Hydric Soil Indicators:		Indicators for Problematic Hydric Soils <sup>3</sup> :
Histosol (A1)	☐ Dark Surface (S7)	2 cm Muck (A10) (MLRA 147)
Histic Epipedon (A2)	Polyvalue Below Surface (S8) (MLRA 147,148)	Coast Prairie Redox (A16)
Black Histic (A3)	☐ Thin Dark Surface (S9) (MLRA 147, 148)	(MLRA 147,148)
Hydrogen Sulfide (A4)	Loamy Gleyed Matrix (F2)	Piedmont Floodplain Soils (F19)
Stratified Layers (A5)	Depleted Matrix (F3)	(MLRA 136, 147)
2 cm Muck (A10) (LRR N)	Redox Dark Surface (F6)	Very Shallow Dark Surface (TF12)
Depleted Below Dark Surface (A11)	Depleted Dark Surface (F7)	Other (Explain in Remarks)
Thick Dark Surface (A12)	Redox Depressions (F8)	Other (Explain in Kemarks)
Sandy Muck Mineral (S1) (LRR N,	☐ Iron-Manganese Masses (F12) (LRR N,	
MLRÁ 147, 148)	MLRA 136)	
Sandy Gleyed Matrix (S4)	Umbric Surface (F13) (MLRA 136, 122)	<sup>3</sup> Indicators of hydrophytic vegetation and
Sandy Redox (S5)	Piedmont Floodplain Soils (F19) (MLRA 148)	wetland hydrology must be present,
Stripped Matrix (S6)	Red Parent Material (F21) (MLRA 127, 147)	unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes ○ No •
Remarks:		
	No hydric soil indicators present in disturbed soils.	No indicators for hydrophytic vegetation or wetland
hydrology present either.		

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audrey	<sup>,</sup> Hanner	Date:	9/22/2020
		•	· · · · · · ·	Field Id:	•	
	0 (	Metric 1. Wet	land Area (size).	w-aeh-20200922-0	5	
max 6 pts	subtotal	Select one size clas	s and assign score.			
		>50 acres (>20.2ha) 25 to <50 acres (10.1		0.02 acre	es	
		10 to <25 acres (4 to	, , , ,			
		3 to <10 acres (1.2 to				
		0.3 to <3 acres (0.12 0.1 to <0.3 acres (0.0				
		x <0.1 acres (0.04ha) (	0 pts)			
	5	Metric 2. Upl	and buffers and su	rrounding land use.		
max 14 pts.	subtotal	2a. Calculate averag	e buffer width. Select only o	ne and assign score. Do not double chec	k.	
			ge 50m (164ft) or more around	wetland perimeter (7) 4ft) around wetland perimeter (4)		
			•	82ft) around wetland perimeter (4)		
			ffers average <10m (<32ft) ard			
			-	or double check and average.		
			wth or older forest, prairie, sav /ears), shrubland, young secor			
				park, conservation tillage, new fallow field. (	(3)	
		HIGH. Urban, industr	ial, open pasture, row cropping	g, mining, construction. (1)		
	7.0 12.0	Metric 3. Hyd	rology.			
max 30 pts.	subtotal	3a. Sources of Water	r. Score all that apply.	3b. Connectivity. Score all th	nat apply.	
		High pH groundwater Other groundwater (3		x Between stream/lake and othe	r human use (1)	
		x Precipitation (1)	')	Part of wetland/upland (e.g. for		
		Seasonal/Intermitten	( )	Part of riparian or upland corric	` '	h I -
		3c. Maximum water	ter (lake or stream) (5) depth. Select one.	3d. Duration inundation/satu Semi- to permanently inundate		песк.
		>0.7 (27.6in) (3)		Regularly inundated/saturated		
		0.4 to 0.7m (15.7 to 2 x <0.4m (<15.7in) (1)	7.6in) (2)	Seasonally inundated (2)  x Seasonally saturated in upper	30cm (12in) (1)	
			natural hydrologic regime. S	Score one or double check and average.	, , , ,	
		None or none appare Recovered (7)	nt (12)	Check all disturbances obse	rved Tpoint source (nonstormwa	ter)
		x Recovering (3)		tile	filling/grading	101)
		Recent or no recover	y (1)	dike x	road bed/RR track	
				weir x stormwater input	dredging Other:	
	5.5 17.	Metric 4. Hab	itat Alteration and	Development.	_	
max 20 pts.	subtotal		bance. Score one or double of	•		
		None or none appare	nt (4)			
		Recovered (3) x Recovering (2)				
		x Recent or no recover				
		Excellent (7)	ment. Select only one and as	sign score.		
		Very good (6)				
		Good (5) Moderately good (4)				
		Fair (3)				
		Poor to fair (2) x Poor (1)				
			n. Score one or double check	k and average.		
		None or none appare	nt (9)	Check all disturbances observ		
		Recovered (6) x Recovering (3)		x mowing x grazing	shrub/sapling removal herbaceous/aquatic bed re	emoval
		Recent or no recover	y (1)	x clearcutting x	sedimentation	
				x selective cutting x woody debris removal x	dredging farming	
		_		toxic pollutants	nutrient enrichment	
	17.	5				
	subtotal th	spage ORAM v. 5.0 Field Fo	orm Quantitative Rating			

w-aeh-20200922-05 oram.xlsm | test\_Field

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audrey H	lanner		Date:	9/22/2020
					Field Id:		
	17.	5			w-aeh-20200922-05		
		_					
	subtotal th						
	0 17.	5 Metric 5. Spec	ciai wetiands.				
max 10 pts.	subtotal	Check all that a	ply and score as indicat	ted.			
		Bog (10)					
		Fen (10) Old growth forest (10)					
		Mature forested wetlar	nd (5)				
		Lake Erie coastal/tribu	tary wetland-unrestricted hydrolog	gy (10)			
			tary wetland-restricted hydrology	(5)			
		Relict Wet Praires (10	es (Oak Openings) (10)				
			<i>,</i> te/federal threatened or endange	red speci	es (10)		
			ongbird/water fowl habitat or usag		,		
			ee Question 5 Qualitative Rating				
	-4 13.	5 Metric 6. Plan	t communities, inter	spers	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		<b>Vegetation Community Cov</b>	er Scale	
		Score all present using	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed		1	Present and either comprises small pa		
		1 Emergent Shrub			vegetation and is of moderate quality, on significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significan	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality o	r comprises a small	
		Open water		_	part and is of high quality		
		Other 6b. horizontal (plan v	iow) Interspersion	3	Present and comprises significant part vegetation and is of high quality	, or more, of wetland's 3	
		Select only one.	iew) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation		
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3) Moderately low (2)			disturbance tolerant native species  Native spp are dominant component of	the vegetation mod	
		Low (1)			although nonnative and/or disturbance	•	
		x None (0)			can also be present, and species diver		
		6c. Coverage of inva			moderately high, but generallyw/o pres	ence of rare	
		Table 1 ORAM long fo or deduct points for co			threatened or endangered spp to A predominance of native species, with	nonnative snn high	
		x Extensive >75% cover	•		and/or disturbance tolerant native spe		
		Moderate 25-75% cov			absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (			the presence of rare, threatened, or en	dangered spp	
		Nearly absent <5% co Absent (1)	ver (0)		Mudflat and Open Water Class Quali	tv	
		6d. Microtopography		0	Absent <0.1ha (0.247 acres)	ty	
		Score all present using			Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks.			Moderate 1 to <4ha (2.47 to 9.88 acres	5)	
		0 Coarse woody debris 0 Standing dead >25cm		3	High 4ha (9.88 acres) or more		
		Amphibian breeding poly			Microtopography Cover Scale		
				0	Absent		
				1	Present very small amounts or if more	common	
				2	of marginal quality  Present in moderate amounts, but not	of highest	
Category 1				2	quality or in small amounts of highest of		
	13.5 GRAN	ID TOTAL(max 100 pts	3)	3	Present in moderate or greater amount	•	
	10.0 GIVAIN	io ioine(iliax ioo pis	"	3	· ·	io.	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 005

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 005

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

# Wetland 005

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 005

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 005

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line

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

City/County: Perry

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State:	OH Sampling Point: w-aeh-20200922-06
Investigator(s): AEH, WRL	Section, Township, Range:	S 21 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, conve	x, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat.: 39.75963	Long.: -82.0897 Datum: NAD83
Soil Map Unit Name: GnB - Glenford silt loam, 1 to 8 percent		NWI classification:
Are climatic/hydrologic conditions on the site typical for this tir	ne of year? Yes O No O (If	no, explain in Remarks.)
	· ·	nal Circumstances" present? Yes  No
	, and the second	d, explain any answers in Remarks.)
	( )	
Summary of Findings - Attach site map show	ing sampling point locati	ons, transects, important features, etc.
Hydrophytic Vegetation Present? Yes O No O		
Hydric Soil Present? Yes No	Is the Sampled Area	a Yes  ● No ○
Wetland Hydrology Present? Yes   No	within a Wetland?	
Sample point w-aeh-20200922-06 point in to PSS wetland 00 extends to north outside of study area into woodlot. Within 1  Hydrology		
Wetland Hydrology Indicators:		Socondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that a	apply)	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)
Surface Water (A1)	tic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	Sulfide Odor (C1)	✓ Drainage Patterns (B10)
	hizospheres along Living Roots (C3)	Moss Trim Lines (B16)
	of Reduced Iron (C4) n Reduction in Tilled Soils (C6)	☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8)
	Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	olain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		✓ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		☐ Shallow Aquitard (D3)
Aquatic Fauna (B13)		<ul><li>✓ Microtopographic Relief (D4)</li><li>✓ FAC-neutral Test (D5)</li></ul>
Field Observations:		
Surface Water Present? Yes No Depth (ii	nches): 0	
Water Table Present? Yes O No O Depth (in	nches):	ydrology Present? Yes  No
Saturation Present? Yes No Depth (in Cludes capillary fringe)		ydrology Present? Yes ♥ No U
Describe Recorded Data (stream gauge, monitoring well, aeria	I photos, previous inspections), if a	vailable:
Remarks:		
Multiple primary and secondary hydrology indicators present.		
geomorphic position and overbank flow from perennial Strean floodplain of perennial stream Moxahala Creek, which flows no		ains to west to wetland 007, also in mapped 100-year

			ominant becies? -		Sampling Point: w-aeh-20200922-06
Tree Stratum (Plot size: <u>30' r</u> )	Absolute % Cover	Re	el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC:
2	0	$\square$	0.0%		T. I.I.N. J. C. C. D. J. J. J.
3			0.0%		Total Number of Dominant Species Across All Strata: 9 (B)
4			0.0%		
5.			0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6.			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8.	0		0.0%		Total % Cover of: Multiply by:
	0	= Tc	tal Cover		0BL speci es
Sapling-Sapling/Shrub Stratum (Plot size: 15' r					FACW species 45 x 2 = 90
1. Cephalanthus occidentalis		<b>✓</b>	50.0%	OBL	FAC speciles 35 x 3 = 105
2. Acer saccharinum			25.0%	FACW	FACU speci es 0 x 4 = 0
3. Cornus alba		✓.	25.0%	FACW	· — — — — — — — — — — — — — — — — — — —
4	0	$\sqsubseteq$	0.0%		1
5	0	$\sqcup$	0.0%		Column Totals: 140 (A) 255 (B)
6		$\sqcup$	0.0%		Prevalence Index = B/A = 1.821
7			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
10			0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		- = Тс	tal Cover		
	0		0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0	$\Box$	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		$\Box$	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		$\Box$	0.0%		be present, unless disturbed or problematic.
4					Definition of Vegetation Strata:
5	0	Η.	0.0%		Four Vegetation Strata:
6			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		Ш.	0.0%		(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size: <u>5' r</u> )	0	= Tc	otal Cover	-	of height.
1. Dichanthelium dichotomum	20	✓,	20.0%	FAC	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 hydropiper	15	✓.	15.0%	OBL	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Panicum virgatum	15	<b>V</b>	15.0%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
4. Persicaria sagittata	10	✓,	10.0%	OBL	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Leersia oryzoides	10	✓,	10.0%	OBL	in neight.
6. Juncus effusus	10	✓,	10.0%	FACW	Five Vegetation Strata:
7. Panicum dichotomiflorum	5		5.0%	FACW	Tree - Woody plants, excluding woody vines, approximately 20
8. Eupatorium perfoliatum	5		5.0%	FACW	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9. Symphyotrichum novae-angliae	5		5.0%	FACW	diameter at breast height (DBH).
10. Scirpus atrovirens	5		5.0%	OBL	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than
11.	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15' r )	100	= Tc	tal Cover	-	livines, approximately 3 to 20 ft (1 to 6 m) in height.
	0		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody
1					species, except woody vines, less than approximately 3 ft (1 m)
2			0.0%		in height.
3	0	1	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4			0.0%		-
5			0.0%		Hydrophytic
6.	0	Ш.	0.0%		Vegetation Present?  Yes  No
	0	= To	otal Cove	r	Present? Yes V No V
Remarks: (Include photo numbers here or on a separate shee	et.)				
$\label{eq:hydrophytic} \mbox{Hydrophytic vegetation indicator present as dominance test} > 50\%, \mbox{ constant}.$	dominant sp	ecies	s are OBL,	FACW and I	FAC.

Sampling Point:

w-aeh-20200922-06

inches)	Matrix			edox Featu							
	Color (moist)		Color (moist)	%	_Tvpe_	Loc <sup>2</sup>	Texture	Rer promi nent	marks redox		
0-2	10YR 4/1	98	10YR 5/6	20	C	PL	Silt Loam	concentra	ti ons		
2-16	10YR 3/1	80	10YR 4/6	20	C	PL	Silty Clay Loam	promi nent concentra	redox ti ons		
								·,			
	<del></del>										
	<del></del>							,			
	<del></del>							·,			
								'			
_	<u>,</u>							· · · · · · · · · · · · · · · · · · ·			
		-									
e: C=Conce	entration. D=Depletion	n. RM=Reduce	ed Matrix, CS=Cover	ed or Coated	d Sand Grain	s <sup>2</sup> Locati	on: PL=Pore Lining. N	√=Matrix			
dric Soil In							Indicators for Pr	oblematic Hydri	c Soils <sup>3</sup> :		
Histosol (A' Histic Epipe			☐ Dark Surface☐ Polyvalue Belo		S8) (MLRA 1	47 148)	2 cm Muck (	A10) (MLRA 147)			
Black Histic	(A3)		Thin Dark Sur				Coast Prairie (MLRA 147,1				
Hydrogen S Stratified La			<ul><li>Loamy Gleyed</li><li>✓ Depleted Matr</li></ul>					oodplain Soils (F19)	)		
	(A10) (LRR N)		Redox Dark Si				(MLRA 136,		12)		
	elow Dark Surface (A´	11)	Depleted Dark		)		<ul><li>✓ Very Shallow Dark Surface (TF12)</li><li>✓ Other (Explain in Remarks)</li></ul>				
	Surface (A12)		Redox Depres		(			,			
Sandy Mucl MLRA 147,	k Mineral (S1) (LRR N 148)	ı	Iron-Mangane MLRA 136)	se Masses (I	12) (LRR N						
	ed Matrix (S4)		Umbric Surfac				3 Indicator	co of budrophytic v	agatation and		
Sandy Redo			☐ Piedmont Floo				<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,				
Stripped Ma	atrix (S6)		Red Parent M	aterial (F21)	(MLRA 127,	147)	unie	ss disturbed or pro	oblematic.		
trictive Lay	yer (if observed):										
							Hydric Soil Preser	nt? Yes •	No O		
Depth (inche			برامله مم ميرامير طاماط	and low ch	roma/low	value ma	trix with prominent	redox concentra	tions in nore linir		
Depth (inche	cators present as lo	ow chroma/l	nign value matrix						tions in pore iiiiii		
Depth (inche	cators present as lo	ow chroma/	nign value matrix				·		tions in pore iiiiii		
Depth (inche	cators present as lo	ow chroma/	nign value matrix				·		tions in pore iinii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix				'		tions in pore iinii		
Depth (inche	cators present as lo	ow chroma/	nign value matrix				,		uons in pore iinii		
Depth (inche	cators present as l	ow chroma/	nign value matrix				·		uons in pore iinii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix				·		tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						uons in pore iinii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						uoris III pore III III		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		
Depth (inche	cators present as lo	ow chroma/	nigh value matrix						tions in pore iniii		

Project/Site: Crooksville-North Newark 138	8 kV Transmission Line City/	County: Perry	Sampling Date: 22-Sep-20				
Applicant/Owner: AEP		State: OH	Sampling Point: upl-aeh-20200922-05				
Investigator(s): AEH, WRL	Sect	ion, Township, Range: S 21	T 14N R 14W				
Landform (hillslope, terrace, etc.): Floo	odplain Local r	relief (concave, convex, none):	flat Slope: 0.0 % / 0.0 °				
Subregion (LRR or MLRA): LRR N	 Lat.: 39.75	" ).959 Long.: -82	09003 Datum: NAD83				
Soil Map Unit Name: Ne - Newark silt lo			'I classification: N/A				
Are climatic/hydrologic conditions on the	site typical for this time of year?	Yes No O (If no, explain i	n Remarks.)				
	Hydrology    significantly distu	urbed? Are "Normal Circumst	ances" present? Yes   No				
Are Vegetation . , Soil . , or	Hydrology   naturally problem	natic? (If needed, explain ar	ny answers in Remarks.)				
Summary of Findings - Attacl		ling point locations, tran	sects, important features, etc.				
3 1 3 3	es O No O						
	es O No O	Is the Sampled Area Yes O No					
Wetland Hydrology Present? Ye	es   No	within a Wetland?					
Sample point Upland 005 (upl-aeh-202 grassy field, in 100-year floodplain of N point as hydrophytic vegetation criteria	Moxahala Creek (Stream 001). Withii		ary at equal elevation at edge of mowed entially problematic soils. Not a wetland				
Hydrology							
Wetland Hydrology Indicators:  Primary Indicators (minimum of one red  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)  Aquatic Fauna (B13)	<ul> <li>□ True Aquatic Plants (B14)</li> <li>□ Hydrogen Sulfide Odor (C1</li> <li>✔ Oxidized Rhizospheres alor</li> <li>□ Presence of Reduced Iron</li> <li>□ Recent Iron Reduction in T</li> <li>□ Thin Muck Surface (C7)</li> <li>□ Other (Explain in Remarks)</li> </ul>	Surfa Spars Spars I) Drain ng Living Roots (C3) Moss (C4) Dry S Filled Soils (C6) Crayf Satur Stunt Geom Shalld Micro	v Indicators (minimum of two required) ce Soil Cracks (B6) sely Vegetated Concave Surface (B8) sage Patterns (B10) Trim Lines (B16) season Water Table (C2) sish Burrows (C8) sation Visible on Aerial Imagery (C9) sed or Stressed Plants (D1) norphic Position (D2) ow Aquitard (D3) stopographic Relief (D4) neutral Test (D5)				
Water Table Present? Yes O	Depth (inches):  Depth (inches):  Depth (inches):  Depth (inches):	0 Wetland Hydrology Pre	esent? Yes • No O				
Describe Recorded Data (stream gauge,	, monitoring well, aerial photos, prev	vious inspections), if available:					
Remarks:  One primary hydrology indicator present to Muskingum River, a TNW.	t. Primary source of hydrology is ove	erbank flow from perennial Stream	001 (Moxahala Creek), which flows north				

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

# Upland 005

			ominant		Sampling Point: <u>upl-aeh-20200922-05</u>
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re		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%		T
3			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4			0.0%		Species / ici oss / iii oti did.
5			0.0%	`	Percent of dominant Species
		$\Box$	0.0%		That Are OBL, FACW, or FAC: 25.0% (A/B)
6		П	0.0%		Prevalence Index worksheet:
7					
8			0.0%		
Sapling-Sapling/Shrub Stratum (Plot size: 15' r )		= 10	otal Cover		0BL speci es x 1 =
	_	<b>✓</b>	100.0%	UPI	FACW speci es x 2 =40
•••		$\Box$	0.0%		FAC speci es 10 x 3 = 30
2		$\Box$	0.0%		FACU speci es
3.		$\vdash$			UPL speci es $\frac{5}{25}$ x 5 = $\frac{25}{25}$
4			0.0%		·
5			0.0%		Col umn Total s: 103 (A) 367 (B)
6	0		0.0%		Prevalence Index = B/A = 3.563
7	0	Ш	0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9.			0.0%		Dominance Test is > 50%
10		П	0.0%		_
		— – Та	otal Cover		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)					Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0		0.0%		I — '
2	0	Ш	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5.			0.0%		Definition of Vegetation Strata:
6.			0.0%		Four Vegetation Strata:
	0		0.0%		Tree stratum - Consists of woody plants, excluding vines, 3 in.
7		— – Та	otal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' r</u> )			otal cover		Sapling/shrub stratum – Consists of woody plants, excluding
1. Solidago altissima	30	<b>✓</b>	30.6%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Apocynum cannabinum	20	✓	20.4%	FACU	Herb stratum - Consists of all herbaceous (non-woody) plants,
3. Lysimachia nummularia	20	<b>✓</b>	20.4%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4. Glechoma hederacea	15		15.3%	FACU	Woody vines – Consists of all woody vines greater than 3.28 ft
5. Vernonia gigantea	10		10.2%	FAC	in height.
6. Lactuca canadensis	3		3.1%	FACU	F: V
7	0		0.0%		Five Vegetation Strata:
	0	$\Box$	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
8			0.0%		diameter at breast height (DBH).
9	0_				Sapling stratum – Consists of woody plants, excluding woody
10	0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than
11	0		0.0%		3 in. (7.6 cm) DBH.
12	0	Ш	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: 15'r )	98	= To	otal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1.	0	П	0.0%		including herbaceous vines, regardless of size, and woody
	0				species, except woody vines, less than approximately 3 ft (1 m) in height.
2		$\vdash$	0.0%		
3.			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
	0	= T	otal Cover		Present? Yes No •
Remarks: (Include photo numbers here or on a separate shee	2+ )				
No hydrophytic vegetation indicators present as dominance test is not		omin	ant species	are FACW,	, FACU and UPL, and prevalence index > 3.0

Soil

Sampling Point: upl-aeh-20200922-05

Depth		Matrix				edox Featu			bsence of indicator			
(inches)		(moist)	%	Color (	moist)	%	Type <sup>1</sup>	Loc <sup>2</sup> _	Texture	F	Remarks	
0-4	10YR	4/2	100						Silt Loam	foliat a		
4-17	10YR	3/1	80	10YR	4/3	15	C	M	Silty Clay		edox concentrations	
				10YR	5/6	5	С	PL		promi nei concenti	nt redox rations	
										1		
		,								,		
		,								,		
							-			· · · · · · · · · · · · · · · · · · ·		
										<u>,</u>		
Euros C. Cor	contration	D. Doploti	ion DM Dod	eod Matrix	CC Cover	ad or Coata	d Cand Crai	ns 2locat	ion: DL Doro Liping	M. Motriy		
			ion. Rivi=Real	icea iviatrix, i	CS=Cover	ed or Coate	d Sand Grai	ns ²Locat	ion: PL=Pore Lining.			
Hydric Soil Histosol (				□ Dorl	x Surface	(57)			Indicators for F	Problematic Hy	dric Soils <sup>3</sup> :	
						(57) ow Surface (	S8) (MI PA	147 148)	2 cm Muck	(A10) (MLRA 147	7)	
Histic Epipedon (A2)  Black Histic (A3)						face (S9) (M				e Redox (A16)		
	n Sulfide (A4	1)				Matrix (F2)		,	(MLRA 147,	•		
	Layers (A5)				eted Matr				Piedmont FI (MLRA 136,	loodplain Soils (F 147)	19)	
2 cm Muck (A10) (LRR N)						urface (F6)				w Dark Surface (*	TF12)	
☐ Depleted Below Dark Surface (A11)						Surface (F7	7)		_		11 12)	
_	Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Depleted Dark Surface (F7)  Depleted Dark Surface (F7)  Other (Explain in Remarks)											
Sandy Mu	uck Mineral		N,	☐ Iron	-Mangane	se Masses (	F12) (LRR N	٧,				
MLRA 14	7, 148)				A 136)							
	eyed Matrix	(S4)				e (F13) (ML			3 Indicate	ars of hydronhyti	r vegetation and	
Sandy Re						odplain Soils			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,			
Stripped	Matrix (S6)			☐ Red	Parent Ma	aterial (F21)	(MLRA 127	7, 147)	unl	ess disturbed or	problematic.	
Restrictive L	ayer (if ob	served):										
Туре:										_	_	
Depth (inc	ches):								Hydric Soil Prese	nt? Yes	No O	
Remarks:												
	dicator pre	esent ask	ow chroma/	ow value r	natrix wi	th promine	ent redox (	concentrat	ions in pore linings			
yane son m	alcator pro	John dan	ovv em em a	ow value i	ilati ix wi	tir promine	ont rodox (	on contrat	ions in pore inings	•		

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey	Hanner		Date:	9/22/2020
		•	• • • •	Field Id	d:	-	
	1 1	Metric 1. Wet	land Area (size).	w-aeh-	20200922-06		
max 6 pts	subtotal	Select one size class	and assign score.				
		>50 acres (>20.2ha) (			0.14 acres		
		25 to <50 acres (10.1 10 to <25 acres (4 to					
		3 to <10 acres (1.2 to	<4ha) (3 pts)				
		0.3 to <3 acres (0.12					
		x 0.1 to <0.3 acres (0.0 <0.1 acres (0.04ha) (0.04ha)					
	5 6		ind buffers and sur	rounding land	use.		
max 14 pts.	subtotal	<b>-</b>	e buffer width. Select only or	_			
max 14 pts.	Subtotal		e 50m (164ft) or more around	-	o not double encou.		
			rage 25m to <50m (82 to <164	,	` '		
			erage 10m to <25m (32ft to <8 fers average <10m (<32ft) are				
			• , ,	, ,	•		
			ounding land use. Select one with or older forest, prairie, sava		-		
			ears), shrubland, young secon		(.)		
			. Residential, fenced pasture,		e, new fallow field. (3)		
		HIGH. Urban, industri	al, open pasture, row cropping	mining, construction. (1	1)		
	8.0 14.0	Metric 3. Hyd	rology.				
max 30 pts.	subtotal	3a. Sources of Wate	r. Score all that apply.	3b. Conne	ctivity. Score all that apply	<i>i</i> .	
		High pH groundwater		x 100 year flo			
		Other groundwater (3 x Precipitation (1)			tream/lake and other human land/upland (e.g. forest), cor	` '	
		Seasonal/Intermittent	surface water (3)		rian or upland corridor (1)	Tiplex (1)	
			er (lake or stream) (5)		on inundation/saturation. S		
		3c. Maximum water	depth. Select one.		ermanently inundated/satura nundated/saturated (3)	ted (4)	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 2	7.6in) (2)		inundated (2)		
		x <0.4m (<15.7in) (1)	- / ( /		saturated in upper 30cm (1	2in) (1)	
			natural hydrologic regime. S				
		None or none appare Recovered (7)	11 (12)	x ditch	disturbances observed x point so	ource (nonstormwater)	
		x Recovering (3)		tile	x filling/gi		
		Recent or no recover	<i>(</i> (1)	dike		ed/RR track	
				weir stormwater	dredgin input Other:	ig	
	6 20	Metric 4 Hab	itat Alteration and I				
max 20 pts.	subtotal	₫	pance. Score one or double c	-			
max 20 pts.	Subiolai	None or none appare		neck and average.			
		Recovered (3)	• •				
		x Recovering (2) Recent or no recovery	, (1)				
			nent. Select only one and ass	ign score.			
		Excellent (7)	·				
		Very good (6)					
		Moderately good (4)					
		Fair (3)					
		x Poor to fair (2)					
		Poor (1) 4c. Habitat alteration	. Score one or double check	and average.			
		None or none appare		-	listurbances ob <u>serve</u> d		
		Recovered (6)		x mowing		apling removal	-1
		x Recovering (3) x Recent or no recover	<i>(</i> (1)	grazing x clearcutting		eous/aquatic bed removentation	aı
			1.77	x selective cu			
				x woody debi	ris removal farming	ĺ	
		7		toxic polluta	antsnutrient	t enrichment	
	20		O				
	subtotal this	s page ORAM v. 5.0 Field Fo	ını Quantitative Katıng				

Site: Cro	oksville- Ne	wark Project	Rater(s): Audrey Ha	anner		Date:	9/22/2020
			-		Field Id:	-	
	20	1			w-aeh-20200922-06		
	subtotal this						
	0 20	Metric 5. Spec	iai Wetlands.				
max 10 pts.	subtotal	Check all that ap	ply and score as indicat	ed.			
		Bog (10)					
		Fen (10)					
		Old growth forest (10)  Mature forested wetlan	d (5)				
			ary wetland-unrestricted hydrolog	gy (10)			
		Lake Erie coastal/tribut	ary wetland-restricted hydrology	(5)			
		Lake Plain Sand Prairie	es (Oak Openings) (10)				
		Relict Wet Praires (10)	e/federal threatened or endanger	rad apaai	00 (10)		
			enederal tilleateried of endanger ongbird/water fowl habitat or usag		es (10)		
			ee Question 5 Qualitative Rating				
	2 22	Metric 6. Plant	communities, inters	spers	ion, microtopography.		
max 20pts.	subtotal	■ 6a. Wetland Vege	etation Communities.	•	Vegetation Community Cov	er Scale	
max zopio.	Subtotal	Score all present using		0	Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed			Present and either comprises small pa		
		1 Emergent			vegetation and is of moderate quality, o	or comprises a	
		0 Shrub		_	significant part but is of low quality	-44	
		Forest Mudflats		2	Present and either comprises significar vegetation and is of moderate quality o		
		Open water			part and is of high quality	i compriscs a smail	
		Other		3	Present and comprises significant part	or more, of wetland's 3	
		6b. horizontal (plan vi	ew) Interspersion.		vegetation and is of high quality		
		Select only one. High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of	-	
		Low (1)			although nonnative and/or disturbance		
		x None (0) 6c. Coverage of invas	ive plants Refer		can also be present, and species diver moderately high, but generallyw/o pres		
		Table 1 ORAM long for			threatened or endangered spp to	51100 01 1410	
		or deduct points for cov	rerage		A predominance of native species, with	n nonnative spp high	
		Extensive >75% cover			and/or disturbance tolerant native spp	•	
		Moderate 25-75% cover (-			absent, and high spp diversity and ofte the presence of rare, threatened, or en		
		Nearly absent <5% cov			the presence of fare, threatened, or on	dangered spp	
		x Absent (1)			Mudflat and Open Water Class Quali	ty	
		6d. Microtopography.			Absent <0.1ha (0.247 acres)		
		Score all present using			Low 0.1 to <1ha (0.247 to 2.47 acres)	<u>,                                      </u>	
		0 Vegetated hummucks/t 0 Coarse woody debris >			Moderate 1 to <4ha (2.47 to 9.88 acres High 4ha (9.88 acres) or more	5)	
		0 Standing dead >25cm		Ü	riigit and (0.00 delee) of mere		
		Amphibian breeding po			Microtopography Cover Scale		
					Absent		
				1	Present very small amounts or if more	common	
				2	of marginal quality  Present in moderate amounts, but not	of highest	
Category 1				_	quality or in small amounts of highest of		
	22 GRANI	D TOTAL(max 100 pts	)	3	Present in moderate or greater amount	İs	
	<u> </u>	•			and of highest quality		
					and or ingrious quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 006

Date:

September 22, 2020

**Description:** 

PSS wetland

Category 1

Facing North



### Wetland 006

Date:

September 22, 2020

**Description:** 

PSS wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 006

Date:

September 22, 2020

**Description:** 

PSS wetland

Category 1

Facing South



### Wetland 006

Date:

September 22, 2020

**Description:** 

PSS wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 006

Date:

September 22, 2020

**Description:** 

PSS wetland

Category 1

Soil Pit



Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-07
Investigator(s): AEH, WRL	Section, Township, Range: S 21 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N Lai	t.: 39.75972 Long.: -82.09079 Datum: NAD83
Soil Map Unit Name: Ne - Newark silt loam, 0 to 3 percent slopes,	
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
	antly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation ☐ , Soil ✔ , or Hydrology ☐ naturall	y 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	
Hydric Soil Present? Yes   No	Is the Sampled Area Yes  No
Wetland Hydrology Present? Yes   No	within a Wetland?
Remarks:	
extends to north outside of study area through woodlot. Within 10	00-year floodplain=potentially problematic soils.
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply	
Surface Water (A1)  True Aquatic Pla	_ ' ' '
High Water Table (A2)  ☐ Hydrogen Sulfid  ☐ Saturation (A3)  ☐ Oxidized Rhizos	le Odor (C1)   ✓ Drainage Patterns (B10)  pheres along Living Roots (C3)   Moss Trim Lines (B16)
Water Marks (B1)	
	duction in Tilled Soils (C6) Crayfish Burrows (C8)
Drift deposits (B3)	ace (C7) Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4) ☐ Other (Explain i	n Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	✓ Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)	Shallow Aquitard (D3)
Aquatic Fauna (B13)	<ul><li>✓ Microtopographic Relief (D4)</li><li>✓ FAC-neutral Test (D5)</li></ul>
Field Observations:	[ <u>-</u> ] 1710 Houlding (50)
Surface Water Present? Yes O No O Depth (inches	):0
Water Table Present? Yes O No O Depth (inches	):
Saturation Present?  (includes emillion frings)  Yes No Depth (inches	): Wetland Hydrology Present? Yes   No ○
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial pho	otos, previous inspections), if available:
Remarks:	
	Primary sources of hydrology are overbank flow from perennial stream 001
	unoff in geomorphic position. Wetland drains to west to perennial Moxahala Stream

		Sampling Point: w-aeh-20200922-07					
Tree Stratum (Plot size: <u>30' r</u> )			Indicator Status				
1. Acer saccharinum	40	<b>✓</b>	66.7%	FACW	Number of Dominant Species That are OBL, FACW, or FAC: 12 (A)		
2. Ulmus rubra	20	$\mathbf{V}$	33.3%	FAC			
3.	0		0.0%		Total Number of Dominant Species Across All Strata: 12 (B)		
4	0		0.0%				
5			0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)		
6			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)		
7			0.0%		Prevalence Index worksheet:		
8	0		0.0%		Total % Cover of: Multiply by:		
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	60	= To	tal Cover	-	0BL speci es <u>25</u> x 1 = <u>25</u>		
	, 15	<b>✓</b>	34.9%	FAC	FACW speci es x 2 =		
2 1	15		34.9%	FAC	FAC speci es $\underline{75}$ x 3 = $\underline{225}$		
	10		23.3%	FACW	FACU species $11 \times 4 = 44$		
Acer saccharinum     Lonicera morrowii	3		7.0%	FACU	UPL speci es x 5 =		
		$\Box$	0.0%	17100	Col umn Total s: <u>226</u> (A) <u>524</u> (B)		
5		$\Box$	0.0%				
6		$\Box$	0.0%		Prevalence Index = B/A = 2.319		
7 8		$\Box$	0.0%		Hydrophytic Vegetation Indicators:		
9.		$\Box$	0.0%		Rapid Test for Hydrophytic Vegetation		
	0	$\Box$	0.0%		Dominance Test is > 50%		
10	42	 = To	tal Cover		Prevalence Index is ≤3.0 ¹		
Shrub Stratum (Plot size:)					Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)		
1		Η,	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)		
2			0.0%				
3		H	0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.		
4		$\Box$	0.0%		Definition of Vegetation Strata:		
5		Η,	0.0%		Four Vegetation Strata:		
6	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.		
7		, То	tal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.		
Herb Stratum (Plot size: <u>5' r</u> )					Sapling/shrub stratum – Consists of woody plants, excluding		
1. Lysimachia nummularia		<b>✓</b> ,	24.1%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2. Carex Iurida	15	<b>✓</b> ,	18.1%	OBL	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.		
3. Carex scoparia	10	<b>V</b>	12.0%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft		
4. Symphyotrichum lateriflorum	10	<b>✓</b> ,	12.0%	FACW	in height.		
5. Glyceria striata	<u>10</u> 5	<u> </u>	12.0%	OBL FAC			
6. Laportea canadensis	5	$\Box$	6.0%	FACU	Five Vegetation Strata:		
7. Solidago caesia	3	$\Box$	3.6%	FACU	Tree - Woody plants, excluding woody vines, approximately 20		
8. Geum canadense	3	$\Box$	3.6%	FACW	ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
Persicaria pensylvanica	2	H	2.4%	FACW	Sapling stratum – Consists of woody plants, excluding woody		
10. Phalaris arundinacea	0	$\Box$	0.0%	TACW	vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.		
11 12	0	$\Box$	0.0%		Shrub stratum – Consists of woody plants, excluding woody		
	_	, ت To	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot size: 15'r )					Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody		
1. Toxicodendron radicans	20	<b>✓</b>	50.0%	FAC	species, except woody vines, less than approximately 3 ft (1 m)		
2. Vitis riparia		✓,	50.0%	FACW	in height.		
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of height.		
4			0.0%				
5.			0.0%		Hydrophytic		
6		Ц,	0.0%		Vegetation Present? Yes No O		
	40	= Tc	otal Cove	r	Tresent!		
Remarks: (Include photo numbers here or on a separate she Hydrophytic vegetation indicator present as dominance test $>$ 50%,		ecies	are OBL,	FACW and F	FAC.		

Soil

Sampling Point:

w-aeh-20200922-07

inches)	Matri				dox Featu	1				
0-7	Color (moist) 2.5Y 4/2	<u>%</u> 70	Color (	moist) 4/1	20	<u>Tvpe_</u> ' D	Loc <sup>2</sup>	Texture Sandy Clay	Rema redox depl e	rks tions presen
0-7	Z.5Y 4/2		2.5Y					Sandy Clay	prominent r	·
			2.5Y	5/6	10	C	PL		concentrati	ons
7-17	2.5Y 4/1	60	2.5Y	5/6	40	С	М	Sandy Clay	prominent r concentrati	
									<u></u>	
	<del></del>								·····	
		tion. RM=Redu	ced Matrix, (	CS=Covere	ed or Coate	ed Sand Grain	ns <sup>2</sup> Locat	ion: PL=Pore Lining.	M=Matrix	
dric Soil Fr Histosol (A	ndicators:		□ Dark	: Surface (	C7)			Indicators for I	Problematic Hydric S	Soils <sup>3</sup> :
Histic Epipe						(S8) (MLRA 1	47,148)		(A10) (MLRA 147)	
Black Histic	c (A3)		Thin	Dark Surf	ace (S9) (N	/ILRA 147, 14	8)	Coast Prairi (MLRA 147,	e Redox (A16) 148)	
	Sulfide (A4)				Matrix (F2)	)			loodplain Soils (F19)	
	ayers (A5) (A10) (LRR N)			eted Matri	x (F3) irface (F6)			(MLRA 136	*	
	Below Dark Surface	(A11)			Surface (F	7)		_	w Dark Surface (TF12) ain in Remarks)	)
	Surface (A12)	,	Redo	x Depress	sions (F8)			Other (Expi	alli ili Kelliaiks)	
Sandy Muc MLRA 147,	ck Mineral (S1) (LRF . 148)	R N,		Manganes A 136)	se Masses (	(F12) (LRR N	ı			
	yed Matrix (S4)		Umb	ric Surfac	e (F13) (MI	_RA 136, 122	2)	2		
Sandy Red	Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)				A 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,				
	Matrix (S6)		Red	Parent Ma	iterial (F21)	) (MLRA 127	147)		less disturbed or probl	
Stripped M										
	yer (if observed)	:								
trictive La		:								
trictive La		:						Hydric Soil Prese	ent? Yes •	No O
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	vith comm	non promine	ent redox		oore linings in sandy	
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	vith comm	non promine	ent redox			
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	vith comm	on promine	ent redox			
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	rith comm	on promin	ent redox			
trictive La Type: Depth (inch narks:	nes):		high value	matrix w	rith comm	on promine	ent redox			
rictive La Type: Depth (inch	nes):		high value	matrix w	rith comm	non promine	ent redox			
rictive La Type: Depth (inch	nes):		high value	matrix w	vith comm	non promine	ent redox			
rictive La Type: Depth (inch	nes):		high value	matrix w	rith comm	oon promine	ent redox			
trictive La Type: Depth (inch narks:	nes):		high value	matrix w	ith comm	non promin	ent redox			
trictive La Type: Depth (inch narks:	nes):		high value	matrix w	rith comm	oon promine	ent redox			
trictive La Type: Depth (inch narks:	nes):		high value	matrix w	ith comm	on promin	ent redox			
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	vith comm	non promine	ent redox			
strictive La Type: Depth (inch	nes):		high value	matrix w	rith comm	non promin	ent redox			
strictive La Type: Depth (inch marks:	nes):		high value	matrix w	ith comm	non promin	ent redox			
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	ith comm	non promin	ent redox			
trictive La Type: Depth (inch marks:	nes):		high value	matrix w	ith comm	non promin	ent redox			

Project/Site: Crooksville-North News	ark 138 kV Transmission Line City	//County: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP		State: OH	Sampling Point: upl-aeh-20200922-06
Investigator(s): AEH, WRL	Sec	ction, Township, Range: S	21 T 14N R 14W
Landform (hillslope, terrace, etc.):	Floodplain Loca	l relief (concave, convex, none	e): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	N Lat.: 39.7	75961 Long.:	-82.09108 Datum: NAD83
Soil Map Unit Name: Ne - Newark	silt loam, 0 to 3 percent slopes, frequer		NWI classification: N/A
	on the site typical for this time of year?		xplain in Remarks.)
Are Vegetation, Soil	, or Hydrology significantly dis		rcumstances" present? Yes  No
	, o, –		rediffications present:
Are Vegetation . , Soil 🗸	, or Hydrology 🔲 naturally proble	matic? (If needed, exp	olain any answers in Remarks.)
Summary of Findings - A	ttach site map showing sam	oling point locations,	transects, important features, etc.
Hydrophytic Vegetation Present?	Yes ● No O	T	
Hydric Soil Present?	Yes ○ No •	Is the Sampled Area	
Wetland Hydrology Present?	Yes ○ No •	within a Wetland?	es O No O
Remarks:			
	h-20200922-06) point out to wetland 00	)7. about 20' west of wetland	boundary at higher elevation. In 100-year
			c soil and wetland hydrology criteria not met.
Hydrology			
Wetland Hydrology Indicators:		Se	econdary Indicators (minimum of two required)
Primary Indicators (minimum of o	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 (	· _	Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres al	_	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iro	. ,	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in	Tilled Soils (C6)	Crayfish Burrows (C8)
☐ Drift deposits (B3)☐ Algal Mat or Crust (B4)	☐ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	☐ Other (Explain in Remark	(S) <u> </u>	Geomorphic Position (D2)
Inundation Visible on Aerial Image	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		0	
Water Table Present? Yes	No Depth (inches):		pay Present? Yes O No 💿
Saturation Present? (includes capillary fringe)  Yes	No Depth (inches):	Wetland Hydrolo	igy Present? Yes C No S
	gauge, monitoring well, aerial photos, pre	evious inspections), if available	e:
Remarks:			
No hydrology indicators present.			

			ominant		Sampling Point: upl-aeh-20200922-06
Tree Stratum (Plot size: 30' r )	Absolute % Cover	R	pecies? • el.Strat. over	Indicator Status	
1. Prunus serotina	10	<b>✓</b>	76.9%	FACU	Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2. Populus deltoides	3	<b>✓</b>	23.1%	FAC	T. LIN . L CD . L L
3	0		0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
4			0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 60.0% (A/B)
6	0		0.0%		That Are OBE, FACW, OF FAC.
7	0		0.0%		Prevalence Index worksheet:
8		Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	) = 13	= To	otal Cove	r	0BL speci es x 1 =
<b>4 B</b> 1	20	<b>✓</b>	44.4%	UPL	FACW species x 2 = 100
0.	15	✓	33.3%	FAC	FAC speci es x 3 =69
<b>o</b> D		$\Box$	11.1%	FACU	FACU speci es x 4 =120
Prunus serotina     Lonicera morrowii		$\overline{\Box}$	11.1%	FACU	UPL speci es $\frac{20}{100}$ x 5 = $\frac{100}{100}$
5			0.0%		Column Totals: <u>123</u> (A) <u>389</u> (B)
6.			0.0%		Prevalence Index = B/A = 3.163
7			0.0%		
8			0.0%		Hydrophytic Vegetation Indicators:
9			0.0%		Rapid Test for Hydrophytic Vegetation
0			0.0%		✓ Dominance Test is > 50%
		= To			Prevalence Index is <b>≤3.0</b> <sup>1</sup>
Shrub Stratum (Plot size:)	0		0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3			0.0%		be present, unless disturbed or problematic.
			0.0%		Definition of Vegetation Strata:
5			0.0%		Four Vegetation Strata:
			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		ت To =	otal Cove		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' r</u> )		<b>✓</b>			Sapling/shrub stratum – Consists of woody plants, excluding
1. Impatiens capensis	50			FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Phytolacca americana			15.4%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. Verbesina alternifolia			0.0%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft
4	0		0.0%		in height.
5	0		0.0%		
6			0.0%		Five Vegetation Strata:
7	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
			0.0%		diameter at breast height (DBH).
9			0.0%		Sapling stratum – Consists of woody plants, excluding woody
			0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1  2			0.0%		Shrub stratum – Consists of woody plants, excluding woody
		ت To =	otal 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 woody
1			0.0%		species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3			0.0%		Woody vines – Consists of all woody vines, regardless of height.
4			0.0%		
5			0.0%		Hydrophytic
			0.0%		Vegetation
6	0 0		otal Cove	-	Present? Yes No

Soil

Sampling Point: upl-aeh-20200922-06

Depth		Matrix			Redox Feat	ıres				
(inches)_		(moist)	%	Color (moist	) %	Tvpe_1	Loc <sup>2</sup>	Texture	Rem	
0-7	10YR	4/1	90	10YR 4/3	10	C	М	Silty Clay Loam	raint redo	x concentrations
7-16	10YR	4/3	85	10YR 5/1	15	D	М	Sandy Clay		
		1							`	
		,							<b>'</b>	
									,	
									,	
						$\overline{}$			·,	
									<del> </del>	
									· ·	
Type: C=Cond	centration. I	D=Depletio	on. RM=Redu	ced Matrix, CS=Co	vered or Coate	ed Sand Grain	ns ²Locat	ion: PL=Pore Lining. M	l=Matrix	
Hydric Soil I	ndicators:							Indicators for Pr	oblematic Hydric	: Soils <sup>3</sup> :
Histosol (A				☐ Dark Surfa				2 cm Muck (		
	pedon (A2)				Below Surface			Coast Prairie		
Black Hist		`			Surface (S9) (N		18)	(MLRA 147,1		
	Sulfide (A4 Layers (A5)				yed Matrix (F2)	)			odplain Soils (F19)	
	k (A10) (LR			Depleted N	k Surface (F6)			(MLRA 136,		2)
	Below Dark		111)		ark Surface (F0)	7)		_	Dark Surface (TF12	2)
_	k Surface (A		(11)		ressions (F8)	,		Utner (Explai	n in Remarks)	
	ck Mineral (		٧,		anese Masses	(F12) (LRR N	,			
MLRA 147	7, 148)			MLRA 136)						
	eyed Matrix	(S4)			rface (F13) (M			<sup>3</sup> Indicator	s of hydrophytic ve	getation and
Sandy Red					Floodplain Soils			wetland	d hydrology must be	e present,
Stripped i	Matrix (S6)			☐ Red Paren	t Material (F21	) (MLRA 127	, 14/)	unie	ss disturbed or prob	Diematic.
Restrictive La	ayer (if ob	served):								
Туре:								11 12 0 11 0	t? Yes O	
Depth (inch	hes):							Hydric Soil Presen	t? Yes O	No •
Remarks:										
o hydric soil	indicators	s present	; low chrom	a/high value ma	trix without	edox conce	entrations	in pore linings.		

Wetland 007

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audre	y Hanner			Date:	9/22/2020
		•			eld ld:		-	
	2 2	Metric 1. Wet	and Area (size).	w-	aeh-20200922	2-07		
max 6 pts	subtotal	Select one size class	and assign score.					
		>50 acres (>20.2ha) (			0.46	acres		
		25 to <50 acres (10.1 10 to <25 acres (4 to	, , , ,					
		3 to <10 acres (1.2 to						
		x 0.3 to <3 acres (0.12 t	, , , ,					
		0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0						
	5 7		ınd buffers and sı	urroundina	land use.			
max 14 pts.	subtotal		buffer width. Select only	_		chack		
max 14 pts.	Subtotal		e 50m (164ft) or more aroun	_		CHECK.		
			rage 25m to <50m (82 to <1					
			erage 10m to <25m (32ft to					
			fers average <10m (<32ft) a	•	` '			
			unding land use. Select or th or older forest, prairie, sa		_			
			ears), shrubland, young sec					
			. Residential, fenced pasture			eld. (3)		
		HIGH. Urban, industri	al, open pasture, row croppir	ng, mining, construc	ction. (1)			
	8.0 15.0	Metric 3. Hyd	rology.					
max 30 pts.	subtotal	3a. Sources of Water	. Score all that apply.	3b.	Connectivity. Score	all that apply	<i>/</i> .	
		High pH groundwater	` '		year floodplain (1)			
		Other groundwater (3) x Precipitation (1)			ween stream/lake and			
		Seasonal/Intermittent	surface water (3)		t of wetland/upland (e. t of riparian or upland		riplex (1)	
		Perennial surface wat	er (lake or stream) (5)				Score one or dbl check	
		3c. Maximum water o	lepth. Select one.		ni- to permanently inu		ted (4)	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27	7 6in) (2)		gularly inundated/satur Isonally inundated (2)	rated (3)		
		x <0.4m (<15.7in) (1)	.5.11) (2)		isonally saturated in u	pper 30cm (1	2in) (1)	
			natural hydrologic regime.					
		None or none apparer Recovered (7)	nt (12)	X ditch	eck all disturbances o		ource (nonstormwater)	
		x Recovering (3)		tile		filling/g		
		Recent or no recovery	(1)	dike	)	road be	ed/RR track	
				weir		dredgin	ng	
	40 0	<b>.</b>			mwater input	Other:		
	10 2	<b>_</b>	tat Alteration and	-				
max 20 pts.	subtotal	4a. Substrate disturb	ance. Score one or double	e check and averag	ge.			
		x Recovered (3)	ii (4)					
		x Recovering (2)						
		Recent or no recovery	· (1) nent. Select only one and a	esian score				
		Excellent (7)	ient. Gelect only one and a	issign score.				
		Very good (6)						
		Good (5) Moderately good (4)						
		x Fair (3)						
		Poor to fair (2)						
		Poor (1)	Coore one or devible ober	ak and awaren				
		None or none apparer	. Score one or double cheen (9)		eck all disturbances ob	served		
		x Recovered (6)	` '	x mo	wing	x shrub/s	sapling removal	
		x Recovering (3)	. (1)	graz			eous/aquatic bed remov	al
		Recent or no recovery	(1)		arcutting ective cutting	x sedime dredgin		
				x woo	ody debris removal	farming	j	
		=		toxio	c pollutants		t enrichment	
	2	5						
	subtotal thi	s page ORAM v. 5.0 Field Fo	rm Quantitative Rating					

w-aeh-20200922-07 oram.xlsm | test\_Field

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audrey H	anner		Date:	9/22/2020
					Field Id:		
	25	5			w-aeh-20200922-07		
	subtotal this						
	0 25	Metric 5. Spec	ial Wetlands.				
max 10 pts.	subtotal	Check all that ar	ply and score as indicat	ed.			
		Bog (10)	. ,				
		Fen (10)					
		Old growth forest (10)	1.(5)				
		Mature forested wetlar	เฉ (ธ) tary wetland-unrestricted hydrolog	av (10)			
			tary wetland-restricted hydrology				
			es (Oak Openings) (10)	(-)			
		Relict Wet Praires (10)					
			te/federal threatened or endanger		es (10)		
			ongbird/water fowl habitat or usag ee Question 5 Qualitative Rating				
	1 26		-		ion, microtopography.		
			•	000.0		6 1	
max 20pts.	subtotal		etation Communities.		Vegetation Community Cov		
		Score all present using Aquatic bed	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a Present and either comprises small pa		
		Emergent		'	vegetation and is of moderate quality,		
		Shrub			significant part but is of low quality	or comprised a	
		1 Forest		2	Present and either comprises significa		
		Mudflats			vegetation and is of moderate quality of	r comprises a small	
		Open water Other		- 3	part and is of high quality Present and comprises significant part	or more, of wetland's 3	
		6b. horizontal (plan v	iew) Interspersion.	3	vegetation and is of high quality	, or more, or wettand's 5	
		Select only one.	, .				
		High (5)			Narrative Description of Vegetation		
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3) Moderately low (2)			disturbance tolerant native species  Native spp are dominant component or	f the vegetation, mod	
		Low (1)			although nonnative and/or disturbance	•	
		x None (0)			can also be present, and species diver		
		6c. Coverage of invas			moderately high, but generallyw/o pres	ence of rare	
		Table 1 ORAM long for or deduct points for co			threatened or endangered spp to  A predominance of native species, with	nonnative snn high	
		Extensive >75% cover	· ·		and/or disturbance tolerant native spp		
		Moderate 25-75% cove			absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (-			the presence of rare, threatened, or en	dangered spp	
		x Nearly absent <5% cov Absent (1)	ver (0)		Mudflat and Open Water Class Quali	4.	
		6d. Microtopography	_	0	Absent <0.1ha (0.247 acres)	ity	
		Score all present using			Low 0.1 to <1ha (0.247 to 2.47 acres)		
		0 Vegetated hummucks/			Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		0 Coarse woody debris >		3	High 4ha (9.88 acres) or more		
		Standing dead >25cm     Amphibian breeding po			Microtopography Cover Scale		
			,010	0	Absent		
					Present very small amounts or if more	common	
					of marginal quality		
Category 1				2	Present in moderate amounts, but not quality or in small amounts of highest of		
Category 1	26 65 4 3 1	D TOTAL (*** 400 - 1	Λ.	_	· · · · · · · · · · · · · · · · · · ·	· · · · · · · · · · · · · · · · · · ·	
	26 GRANI	D TOTAL(max 100 pts	5)	3	Present in moderate or greater amoun	ts	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 007

Date:

September 22, 2020

**Description:** 

PFO wetland

Category 1

Facing North



### Wetland 007

Date:

September 22, 2020

**Description:** 

PFO wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 007

Date:

September 22, 2020

**Description:** 

PFO wetland

Category 1

Facing South



### Wetland 007

Date:

September 22, 2020

**Description:** 

PFO wetland

Category 1

Facing West





Client Name:

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 007

Date:

September 22, 2020

**Description:** 

PFO wetland

Category 1

Soil Pit



### Wetland 008

Project/Site: Crooksville-North Newark 138 kV Transmission	n Line City/County: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OF	Sampling Point: w-aeh-20200922-09
Investigator(s): AEH, WRL	Section, Township, Range: S	21 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, r	none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N	 Lat.: 39.76034 Lor	ng.: -82.09372 Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percel	_	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for		, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	¬	Circumstances" present? Yes   No
		refreditistances present:
Are Vegetation . , Soil . , or Hydrology .	Inaturally problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach site map	showing sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No		
Hydric Soil Present? Yes  No O	Is the Sampled Area	Yes ● No ○
Wetland Hydrology Present? Yes   No	within a Wetland?	Yes INO
Remarks:	<u> </u>	
Sample point w-aeh-20200922-09 point in to PEM we	tland 008 in constructed drainage swale alor	og railroad grade, in 100-year floodplain of
Moxahala Creek (Stream 001). Wetland extends to no		
Woxandia Greek (Stream 661). Wetland extends to he	Till outside of study area. Within 100-year no	ouplain-potentially problematic soils.
Libration In our		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check a		Surface Soil Cracks (B6)
	rue Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	ydrogen Sulfide Odor (C1)	✓ Drainage Patterns (B10)
	xidized Rhizospheres along Living Roots (C3) esence of Reduced Iron (C4)	
	ecent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	nin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
	ther (Explain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	,	<b>✓</b> 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  No	Don'th (tack as)	
	Depth (inches): 0	
	Depth (inches): Wetland Hydi	rology Present? Yes  No
Saturation Present? (includes capillary fringe)  Yes  No  No	Depth (inches):	
Describe Recorded Data (stream gauge, monitoring we	II, aerial photos, previous inspections), if avail	lable:
Remarks:		
Two secondary hydrology indicators present. Primary s		
concentration of precipitation and surface runoff in geo Muskingum River, a TNW	imorphic position. Wetland drains to east to p	erennial Moxanaia Creek that flows north to

			ominant		Sampling Point: w-aeh-20200922-09
Tree Stratum (Plot size: 15' x 60' )	Absolute % Cover	Re	Ji. Oti at.	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2.	0		0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4			0.0%		Species vicios vin circle.
5			0.0%		Percent of dominant Species That Are ORL FACW or FAC: 75.0% (A/B)
6.			0.0%		That Are OBL, FACW, or FAC:(A/B)
7			0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' x 30' )		= To	tal Cover		0BL speci es <u>20</u> x 1 = <u>20</u>
1 Rubus occidentalis	5	<b>✓</b>	62.5%	UPL	FACW speci es <u>58</u> x 2 = <u>116</u>
Quercus palustris		<ul><li>✓</li></ul>	37.5%	FACW	FAC speciles <u>13</u> x 3 = <u>39</u>
3.			0.0%	171077	FACU species $\underline{10}$ x 4 = $\underline{40}$
4		$\overline{\sqcap}$	0.0%		UPL speci es $\frac{5}{}$ x 5 = $\frac{25}{}$
5.			0.0%		Column Totals: <u>106</u> (A) <u>240</u> (B)
6.			0.0%		Prevalence Index = B/A = 2.264_
7			0.0%		
8.			0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9.			0.0%		
10.			0.0%		✓ Dominance Test is > 50% ✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)		= To	tal Cover		
	0	П	0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. 3.	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5.		$\Box$	0.0%		Definition of Vegetation Strata:
6.	0		0.0%		Four Vegetation Strata:
7	0	П	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
Herb Stratum (Plot size: 5' r )		— = То	tal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1. Panicum dichotomiflorum	30	<b>✓</b>	30.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Persicaria hydropiper	20	<u>✓</u>	20.4%	OBL	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Scirpus cyperinus	15		15.3%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4. Echinochloa crusgalli	10		10.2%	FACU	Woody vines - Consists of all woody vines greater than 3.28 ft
5. Bidens frondosa	10		10.2%	FACW	in height.
6. Dichanthelium clandestinum	5		5.1%	FAC	Five Vegetation Strata:
7. Dichanthelium dichotomum	5		5.1%	FAC	Tree - Woody plants, excluding woody vines, approximately 20
8. Solidago rugosa	3		3.1%	FAC	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 less than
11	0		0.0%		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: _15' x 30')	98	= To	tal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody
2.	0		0.0%		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	= T	otal Cover		Present? Yes No O
					1

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

Hydrophytic vegetation indicator present as dominance test > 50%, dominant species are FACW, FAC and UPL. Sample plots adjusted to constrain to wetland configuration in swale.

Sampling Point:

w-aeh-20200922-09

Histosol (A1)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Coast Pr (MLRA 1  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Piedmon (MLRA 2  Polyvalue Below Surface (S9) (MLRA 147, 148)  Coast Pr (MLRA 1  Piedmon (MLRA 2  Piedmon (MLRA 2  Very Sh  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F6)  Very Sh  Depleted Below Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Piedmont Floodplain Soils (F10) (MLRA 149)	ning. M=Matrix  di sti nct redox concentrati ons  ning. M=Matrix  for Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  nont Floodplain Soils (F19)  A 136, 147)  Shallow Dark Surface (TF12)  (Explain in Remarks)		
Topic   Topi	ning. M=Matrix  In for Problematic Hydric Soils 3:  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  In the control of th		
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains   2Location: PL=Pore Lini ydric Soil Indicators:    Histosol (A1)	ning. M=Matrix  In for Problematic Hydric Soils 3:  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  In the control of th		
### Appeing Continuity of the	ning. M=Matrix  for Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  A 136, 147)  Shallow Dark Surface (TF12)		
pe: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains      Carlos Soil Indicators:	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for Histosol (A1)	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for Histosol (A1)	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Stripped Matrix (S4)  Stripped Matrix (S6)  Thick Layer (if observed):  Type:  Depth (inches):  Indicators for Indicators	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for this properties of the state	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
dric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Depleted Matrix (F3)  Depleted Dark Surface (F13) (MLRA 136, 122)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Depth (inches):  Thick Dark Surface (A12)  Redox Depressions (F8)  Hydric Soil Promarks:  Tric soil indicators for indicators (S9) (MLRA 147, 148)  Dark Surface (S9) (MLRA 147, 148)  Depleted Matrix (F2)  Depleted Matrix (F3)  Depleted Dark Surface (F6)  Depleted Dark Surface (F6)  Depleted Dark	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Stripped Matrix (S4)  Stripped Matrix (S6)  Thick Layer (if observed):  Type:  Depth (inches):  Indicators for Indicators	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for this properties of the state	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Indicators for Histosol (A1)  Histosol (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Stripped Matrix (S4)  Stripped Matrix (S6)  Thick Layer (if observed):  Type:  Depth (inches):  Indicators for Indicators	of or Problematic Hydric Soils <sup>3</sup> :  Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Jont Floodplain Soils (F19)  136, 147)  Shallow Dark Surface (TF12)		
Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F3)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Depleted Matrix (S4)  Polyvalue Below Surface (F1)  Depleted Matrix (F2)  Piedmon (MLRA 147, 148)  Depleted Dark Surface (F7)  Other (E1)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Gleyed Matrix (S4)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Trictive Layer (if observed):  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Depth (inches):  Tric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as material in the strain of the s	Muck (A10) (MLRA 147)  Prairie Redox (A16)  147,148)  Iont Floodplain Soils (F19)  A 136, 147)  Shallow Dark Surface (TF12)		
Histic Epipedon (A2)	Prairie Redox (A16) x 147,148) yont Floodplain Soils (F19) x 136, 147) Shallow Dark Surface (TF12)		
Black Histic (A3)	v 147,148) John Floodplain Soils (F19) v 136, 147) Shallow Dark Surface (TF12)		
Hydrogen Sulfide (A4)  Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Depleted Matrix (F3)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Hydric Soil Promarks:  ric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as matrix	ont Floodplain Soils (F19) A 136, 147) Shallow Dark Surface (TF12)		
Stratified Layers (A5)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, 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)  Piedmont Floodplain Soil Premarks:  Type:  Depth (inches):  Type:  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Type:  Depth (inches):  Type:   A 136, 147) Shallow Dark Surface (TF12)			
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Sh. Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (E7) Thick Dark Surface (A12) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, MLRA 136) Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)  strictive Layer (if observed): Type: Depth (inches): Type: Depth (inches): Type: Type: Depth (inches): Type: Ty	Shallow Dark Surface (TF12)		
Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136, 124)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Depth (inches):  Depth (inches):  Type:  Depth (inches):  Trope:  Trope:  Depth (inches):  Trope:  Trope			
Thick Dark Surface (A12) Redox Depressions (F8)  Sandy Muck Mineral (S1) (LRR N, MLRA 136) Iron-Manganese Masses (F12) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)  Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)  Strictive Layer (if observed):  Type:  Depth (inches):  Depth (inches):  Trype:  Trype:  Thype:	, , , , , , , , , , , , , , , , , , , ,		
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Itrictive Layer (if observed):  Type:  Depth (inches):  Trype:  Depth (inches):  Trype:  The coil Primarks:  Trype:  Tr			
Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  trictive Layer (if observed):  Type:  Depth (inches):  Trype:  Trype:  Depth (inches):  Trype:  Trype			
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)  strictive Layer (if observed): Type: Depth (inches): Type: Typ			
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)  Strictive Layer (if observed):  Type: Depth (inches):  Type: Depth (inches): Iric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as mat	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
strictive Layer (if observed):  Type:  Depth (inches):  Emarks:  dric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as ma			
Type:			
Depth (inches): Hydric Soil Premarks:  dric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as ma			
emarks:  dric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as ma	Present? Yes No O		
dric soil indicator present as low chroma/high value matrix with common redox depletions in matrix as ma			
	panganosa modulas and radov		
	langanese modules and redox		

Project/Site: Crooksville-North Newark 138 kV Transmission Line	City/County: Perry		Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State:	OH S	ampling Point: upl-aeh-20200922-08
Investigator(s): AEH, WRL	Section, Township, Range	e: S 21	T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, conv	vex, none): flat	Slope: <u>0.0</u> % / <u>0.0</u> °
Subregion (LRR or MLRA): LRR N	_at.: 39.76018	Long.: -82.0932	Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent slopes,	occasionally flooded	NWI cla	assification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes ● No O (I	If no, explain in Re	
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 signif	icantly disturbed? Are "No	ormal Circumstance	es" present? Yes • No O
Are Vegetation 🔲 , Soil 🗹 , or Hydrology 🔲 natura	ally problematic? (If need	ded, explain any ar	nswers in Remarks.)
Summary of Findings - Attach site map showing	ng sampling point locat	tions, transed	cts, important features, etc.
Hydrophytic Vegetation Present? Yes No			
Hydric Soil Present? Yes No •	Is the Sampled Arwithin a Wetland?		•
Wetland Hydrology Present? Yes No •	WILLIII) a Welland:	<u> </u>	
Sample point Upland 007 (upl-aeh-20200922-08) point out to v crossing. In 100-year floodplain of Moxahala Creek (Stream 00 criteria not met.  Hydrology			
Wetland Hydrology Indicators:		0	dicators (minimum of two required)
Primary Indicators (minimum of one required; check all that approximate the surface Water (A1)  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Thin Muck Surface Water (A1)  Presence of Figure 1  Recent Iron Figure 1  Thin Muck Surface Water (A1)	Plants (B14)  Ifide Odor (C1)  cospheres along Living Roots (C3)  Reduced Iron (C4)  Reduction in Tilled Soils (C6)  Inface (C7)  In in Remarks)	Surface So Sparsely V Drainage I Moss Trim Dry Seaso Crayfish B Saturation Stunted or Geomorph Shallow Ar	poil Cracks (B6)  Vegetated Concave Surface (B8)  Patterns (B10) In Lines (B16) In Water Table (C2)  Burrows (C8) In Visible on Aerial Imagery (C9) In Stressed Plants (D1) Inic Position (D2) Indic Position (D3) Ingraphic Relief (D4) Irical Test (D5)
Water Table Present? Yes No Depth (inches Saturation Present?	Wetland	Hydrology Present	t? Yes ○ No •
(includes capillary fringe) Yes V No V Depth (incr	es):		
Describe Recorded Data (stream gauge, monitoring well, aerial p	photos, previous inspections), if	available:	
Remarks:			
One secondary hydrology indicator present.			

			ominant		Sampling Point: upl-aeh-20200922-08
	Absolute % Cover	Re	ecies? = el.Strat. over	Indicator Status	Dominance Test worksheet:
1	0		0.0%	, ,	Number of Dominant Species That are OBL, FACW, or FAC:
2	0		0.0%		
3			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
4			0.0%		
5.			0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 50.0% (A/B)
6.			0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
(Plot size: 15'r	=	= To	otal Cover		0BL speci es <u>2</u> x 1 = <u>2</u>
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	10	<b>✓</b>	EO 00/	LIDI	FACW species <u>65</u> x 2 = <u>130</u>
1. Rubus occidentalis		<b>✓</b>	50.0%	UPL	FAC speciles 30 x 3 = 90
2. Rhus copallinum	3		25.0% 15.0%	FACW	FACU speci es $\frac{13}{2}$ x 4 = $\frac{52}{2}$
3. Quercus palustris				FACW	UPL species $\frac{10}{10}$ x 5 = $\frac{50}{10}$
4. Betula nigra			0.0%	FACVV	Col umn Total s: 120 (A) 324 (B)
5					1001 dillin 100 dillin 120 (11)
6			0.0%		Prevalence Index = B/A = 2.700
7			0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		☐ Dominance Test is > 50%
10	0	ш	0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= To	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1.			0.0%		data in Remarks or on a separate sheet)
2			0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			0.0%		
5			0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7	0	Ш	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size: 5' r )	0 =	= To	otal Cover		of height.
1. Solidago gigantea	50	<b>✓</b>	50.0%	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. Dichanthelium clandestinum	20	<b>✓</b>	20.0%	FAC	Herb stratum - Consists of all herbaceous (non-woody) plants,
3. Solidago rugosa	10		10.0%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
4. Panicum dichotomiflorum	10	Ш	10.0%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Lactuca canadensis	5		5.0%	FACU	
6. Taraxacum officinale	3		3.0%	FACU	Five Vegetation Strata:
7. Scirpus atrovirens	2	$\sqcup$	2.0%	OBL	Tree - Woody plants, excluding woody vines, approximately 20
8	0	$\sqcup$	0.0%		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).  Sapling stratum – Consists of woody plants, excluding woody
10	0		0.0%		vines, approximately 20 ft (6 m) or more in height and less than
11	0		0.0%		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:)	100	= To	otal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2.	0		0.0%		in height.
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
5.	0		0.0%		I budaaa bu dia
6.	0		0.0%		Hydrophytic Vegetation
	0	= To	otal Cove		Present? Yes No O
Remarks: (Include photo numbers here or on a separate shee	et.)				1
Hydrophytic vegetation indicator present as prevalence index < 3.0, or		ecies	s are FACW	, FAC, FACI	U and UPL

Soil

Sampling Point: upl-aeh-20200922-08

Profile Descr Depth	ription: (De	escribe to Matrix	tne depth r		t the indicator or o	confirm the a	bsence of indicators.)	
(inches)	Color	(moist)	%	Color (moist)	%Tvpe	1 Loc²	Texture	Remarks
0-4	10YR	3/2	100				Silt Loam	
4-15	10YR	5/6	90	10YR 4/2	10 D		Sandy Clay	4
					· · · · · · · · · · · · · · · · · · ·			1
					• • •			4
								4
								<b>,</b>
		_						
								1
								1
				$\overline{}$				4
Type: C=Con	centration.	D=Depletion	on. RM=Redu	ced Matrix, CS=Cover	ed or Coated Sand C	Grains <sup>2</sup> Locat	ion: PL=Pore Lining. M=M	latrix
Hydric Soil								lematic Hydric Soils <sup>3</sup> :
Histosol (				☐ Dark Surface (	(S7)			
	pedon (A2)				w Surface (S8) (MLF	RA 147,148)	2 cm Muck (A10)	
Black His					ace (S9) (MLRA 147		Coast Prairie Red (MLRA 147,148)	dox (A16)
Hydroger	Sulfide (A4	1)		Loamy Gleyed			Piedmont Floodp	dele Celle (F10)
Stratified	Layers (A5)			Depleted Matr			(MLRA 136, 147)	
2 cm Muc	k (A10) (LR	R N)		Redox Dark Su	ırface (F6)		Very Shallow Da	
Depleted	Below Dark	Surface (A	A11)	Depleted Dark	Surface (F7)		Other (Explain in	
	k Surface (A			Redox Depress	sions (F8)		Other (Explain)	r romano)
☐ Sandy Mu	uck Mineral	(S1) (LRR	N,	☐ Iron-Mangane	se Masses (F12) (LR	R N,		
MLRA 14	7, 148)			MLRA 136)	(=) (1			
	eyed Matrix	(S4)			e (F13) (MLRA 136,		3 Indicators of	f hydrophytic vegetation and
☐ Sandy Re					dplain Soils (F19) (N		wetland hy	drology must be present,
☐ Stripped	Matrix (S6)			Red Parent Ma	aterial (F21) (MLRA	127, 147)	unless d	listurbed or problematic.
Restrictive L	aver (if ob	served):						
Type:	,	,						
Depth (inc	:hes):						Hydric Soil Present?	Yes ○ No •
Remarks:								
No hydric soi	Lindicators	s nrasant						
NO FIYUFIC SOF	i ilidicator.	s present						

### Wetland 008

Site: Cro	oksville- Ne	ewark Project	Rater(s): Audrey	/ Hanner		Date:	9/22/2020
		•	. , ,	Field	l ld:	•	
	0 (	Metric 1. Wet	land Area (size).	w-ae	h-20200922-09		
max 6 pts	subtotal	Select one size clas	s and assign score.				
		>50 acres (>20.2ha) 25 to <50 acres (10.1			0.08 acres		
		10 to <25 acres (4 to	, , , ,				
		3 to <10 acres (1.2 to					
		0.3 to <3 acres (0.12 0.1 to <0.3 acres (0.0	, , , ,				
		x <0.1 acres (0.04ha) (	) pts)				
	8 8	Metric 2. Upla	and buffers and su	rrounding lar	nd use.		
max 14 pts.	subtotal	2a. Calculate averag	e buffer width. Select only o	ne and assign score	e. Do not double check.		
			e 50m (164ft) or more around rage 25m to <50m (82 to <16				
			erage 10m to <25m (32ft to <				
			fers average <10m (<32ft) are				
			ounding land use. Select one		-		
			vth or older forest, prairie, sav ears), shrubland, young seco		etc. (1)		
			. Residential, fenced pasture,		llage, new fallow field. (3)		
		HIGH. Urban, industr	al, open pasture, row cropping	g, mining, constructio	n. (1)		
	8.0 16.0	Metric 3. Hyd	rology.				
max 30 pts.	subtotal	3a. Sources of Wate	r. Score all that apply.	3b. Co	nnectivity. Score all that appl	y.	
		High pH groundwater Other groundwater (3			ar floodplain (1) n stream/lake and other humar	2 USA (1)	
		x Precipitation (1)	)		wetland/upland (e.g. forest), co		
		Seasonal/Intermittent	( )	Part of	riparian or upland corridor (1)		
		Perennial surface was 3c. Maximum water	er (lake or stream) (5)		ration inundation/saturation. o permanently inundated/satura		
		>0.7 (27.6in) (3)	aoptii. Goldot olic.		rly inundated/saturated (3)	3104 (4)	
		0.4 to 0.7m (15.7 to 2	7.6in) (2)		nally inundated (2)	10:) (4)	
		x <0.4m (<15.7in) (1) 3e. Modifications to	natural hydrologic regime.		nally saturated in upper 30cm (*  check and average.	12In) (1)	
		None or none appare		Check	all disturbances observed		
		Recovered (7) x Recovering (3)		x ditch tile		source (nonstormwater) grading	
		Recent or no recover	/ (1)	dike		ed/RR track	
				weir	x dredgi	•	
		<b></b>			ater input Other:		
	10 26	Metric 4. Hab	itat Alteration and	Developmen	t.		
max 20 pts.	subtotal	4a. Substrate distur	pance. Score one or double	check and average.			
		x Recovered (3)	it (4)				
		x Recovering (2)	. (4)				
		Recent or no recover  4b. Habitat developr	/ (1) nent. Select only one and as	sian score.			
		Excellent (7)	, , , ,				
		Very good (6)					
		Moderately good (4)					
		x Fair (3)					
		Poor to fair (2) Poor (1)					
		4c. Habitat alteration	. Score one or double chec				
		None or none appare x Recovered (6)	nt (9)	Check :	all disturbances observed g x shrub/	sapling removal	
		x Recovering (3)		grazing		ceous/aquatic bed remova	al
		Recent or no recover	<i>(</i> (1)	x clearcu		entation	
					re cutting dredgi debris removal farmin		
		=				ent enrichment	
	26	6					
	subtotal thi	spage ORAM v. 5.0 Field Fo	rm Quantitative Rating				

w-aeh-20200922-09 oram.xlsm | test\_Field

Site: Croo	ksville- Ne	wark Project	Rater(s): Audrey	Hanner		Date:	9/22/2020
		<u> </u>			Field Id:		
	26	5			w-aeh-20200922-09		
	subtotal this	s page					
	0 26	Metric 5. Spec	cial Wetlands.				
max 10 pts.	subtotal	Check all that a	ply and score as indicate	ated.			
		Bog (10)	, ,				
		Fen (10)					
		Old growth forest (10) Mature forested wetlan	od (E)				
			tary wetland-unrestricted hydro	ology (10)			
			tary wetland-restricted hydrolog				
			es (Oak Openings) (10)				
		Relict Wet Praires (10			(40)		
			te/federal threatened or endano ongbird/water fowl habitat or us		es (10)		
			See Question 5 Qualitative Ratir				
	2 28	<u> </u>		• , ,	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cov	er Scale	
		Score all present using	g 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed		1	Present and either comprises small pa		
		1 Emergent Shrub			vegetation and is of moderate quality, or significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significant	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality o		
		Open water			part and is of high quality		
		Other	iaux Interesponaios	3	Present and comprises significant part	or more, of wetland's 3	
		6b. horizontal (plan v Select only one.	iew) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)			disturbance tolerant native species	: 41	
		Moderately low (2) Low (1)			Native spp are dominant component of although nonnative and/or disturbance		
		x None (0)			can also be present, and species diver		
		6c. Coverage of inva	sive plants. Refer		moderately high, but generallyw/o pres		
		Table 1 ORAM long for			threatened or endangered spp to		
		or deduct points for co			A predominance of native species, with		
		Extensive >75% cove Moderate 25-75% cov	. ,		and/or disturbance tolerant native spp absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (			the presence of rare, threatened, or en		
		Nearly absent <5% co	ver (0)			.,	
		x Absent (1)			Mudflat and Open Water Class Quali	ty	
		6d. Microtopography Score all present using			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks			Moderate 1 to <4ha (2.47 to 9.88 acres	<u></u>	
		Coarse woody debris			High 4ha (9.88 acres) or more		
		0 Standing dead >25cm			•		
		Amphibian breeding p	ools	0	Microtopography Cover Scale		
					Absent Present very small amounts or if more	common	
				'	of marginal quality	55IIIOII	
				2	Present in moderate amounts, but not		
Category 1					quality or in small amounts of highest o	uality	
	28 GRANI	D TOTAL(max 100 pts	5)	3	Present in moderate or greater amount	s	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

#### Wetland 008

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing North



### Wetland 008

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing East





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 008

Date:

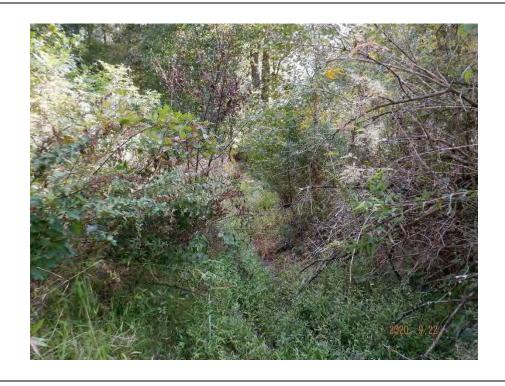
September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing South



### Wetland 008

Date:

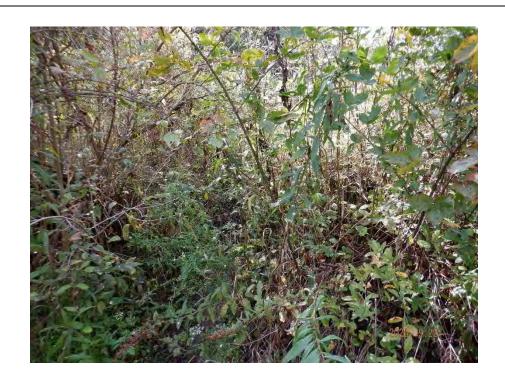
September 22, 2020

**Description:** 

PEM wetland

Category 1

Facing West





**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 008

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



### Wetland 009a

Project/Site: Crooksville-North Newar	k 138 kV Transmission Line	City/County: Perry	Sa	impling Date: 22-Sep-20
Applicant/Owner: AEP		State: 0	H Sampling	g Point: w-aeh-20200922-08a
Investigator(s): AEH, WRL		Section, Township, Range: S	5 21 T 14N	R 14W
Landform (hillslope, terrace, etc.):	Toeslope Lo	ocal relief (concave, convex,	none): concave	Slope: <u>0.0</u> % / <u>0.0</u> °
Subregion (LRR or MLRA): LRR N	Lat.: 3	39.7608 Lo	ng.: <u>-82.09493</u>	Datum: NAD83
Soil Map Unit Name: No - Nolin silt	loam, 0 to 3 percent slopes, occasion	onally flooded	NWI classificat	ion: PSS1/EM1C
Are climatic/hydrologic conditions or	n the site typical for this time of year	r? Yes ⊙ No O (If no	o, explain in Remarks.)	
Are Vegetation . , Soil .	, or Hydrology $\square$ significantly	disturbed? Are "Norma	l Circumstances" pres	sent? Yes • No O
Are Vegetation , Soil ,	, or Hydrology $\ \square$ naturally pro	blematic? (If needed,	explain any answers i	in Remarks.)
Summary of Findings - At	1 0	mpling point locatio	ns, transects, im	nportant features, etc.
Hydrophytic Vegetation Present?	Yes ● No O			
Hydric Soil Present?	Yes No O	Is the Sampled Area	Yes ● No ○	
Wetland Hydrology Present?	Yes ● No O	within a Wetland?		
	a PEM point in to wetland 009a, one I Creek (Stream 001). Wetland exter y embankment.			
Wetland Hydrology Indicators:			2	minimum of two required)
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 Imagery  Water-Stained Leaves (B9)  Aquatic Fauna (B13)  Field Observations:	☐ True Aquatic Plants (I☐ Hydrogen Sulfide Odd  ✔ Oxidized Rhizosphere ☐ Presence of Reduced ☐ Recent Iron Reductio ☐ Thin Muck Surface (C☐ Other (Explain in Ren	or (C1) es along Living Roots (C3) I Iron (C4) on in Tilled Soils (C6)	Surface Soil Cracks Sparsely Vegetated ✓ Drainage Patterns Moss Trim Lines (B Dry Season Water Crayfish Burrows (6	s (B6) d Concave Surface (B8) (B10) B16) Table (C2) C8) On Aerial Imagery (C9) d Plants (D1) on (D2) D3) Relief (D4)
Surface Water Present? Yes C	No Depth (inches):	0		
Water Table Present? Yes C	No Depth (inches):	. Makland II.		Yes ● No O
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetlana нус 	rology Present?	res 🖭 INO 🔾
Describe Recorded Data (stream ga	uge, monitoring well, aerial photos,	previous inspections), if ava	lable:	
Remarks:  One primary and two secondary by:	drology indicators present. Primary s	sources of hydrology are pre	cinitation concentration	on of surface runoff in
	flow from perennial Stream 001 (Mc			

			ominant ecies? -		Sampling Point: w-aeh-20200922-08a
Tree Stratum (Plot size: _15' x 60')	Absolute % Cover	Re	el.Strat.	Indicator Status	Dominance Test worksheet:
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 3 (A)
2.	0		0.0%		
3			0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4			0.0%		Species Across Air Strata.
5			0.0%		Percent of dominant Species
6			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8			0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' x 30' )		= То	tal Cover		0BL speci es x 1 =
	10	<b>✓</b>	100.0%	FΔC\W	FACW speci es x 2 =
1. Betula nigra		Ţ,	0.0%	TACV	FAC speciles <u>65</u> x 3 = <u>195</u>
2		$\Box$	0.0%		FACU speci es x 4 =
3		$\Box$	0.0%		UPL speci es x 5 =
4 5			0.0%		Column Totals: <u>115</u> (A) <u>295</u> (B)
6.			0.0%		Prevalence Index = $B/A = 2.565$
7			0.0%		
8			0.0%		Hydrophytic Vegetation Indicators:
9.			0.0%		Rapid Test for Hydrophytic Vegetation  Dominance Test is > 50%
10.	0		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	10	To =	tal Cover		
1	0		0.0%		Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2.			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.			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), regardless
Herb Stratum (Plot size: 5' r )	0 =	= To	tal Cover		of height.
1. Panicum virgatum	60	<b>✓</b>	57.1%	FAC	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 cyperinus	25	<b>v</b>	23.8%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Panicum dichotomiflorum	10		9.5%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4. Andropogon gerardii	5		4.8%	FAC	Woody vines – Consists of all woody vines greater than 3.28 ft
5. Juncus effusus	5		4.8%	FACW	in height.
6	0		0.0%		Five Vegetation Strata:
7	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8	0		0.0%		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).  Sapling stratum – Consists of woody plants, excluding woody
10	0	$\square$	0.0%		vines, approximately 20 ft (6 m) or more in height and less than
11	0	$\sqsubseteq$	0.0%		3 in. (7.6 cm) DBH.
12		Ш,	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: 15' x 30' )	105	= То	tal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0		0.0%		height.
5	0		0.0%		Hydrophytic
6.	0		0.0%		Vegetation Vac A Na O
	0	= To	otal Cover		Present? Yes V No V

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

Hydrophytic vegetation indicator present as dominance test > 50%, dominant species are FACW and FAC. Sample plots adjusted to long and narrow to adequately characterize PEM component of wetland complex.

Wetland 009a

Soil

Sampling Point:

w-aeh-20200922-08a

Dark Surface (S8) (MLRA 147, 148)   Silt Loam   Silt	tions redox tions		
2-9 2.5Y 4/1 80 10YR 4/4 20 C PL Clay distinct concentral p-16 2.5Y 5/1 80 2.5Y 4/4 20 C M Clay prominent concentral concentral prominent concentral prominent concentral prominent concentral prominent concentral concentral prominent concentral concentral prominent concentral concentral concentral prominent concentral	tions redox tions		
9-16 2.5Y 5/1 80 2.5Y 4/4 20 C M Clay prominent concentral prominent con	redox ti ons		
De: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix  dric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Dark Surface (S7)  Polyvalue Below Surface (S8) (MLRA 147,148)  Thin Dark Surface (S9) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)	tions		
dric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Black Histic (A3)  Dark Surface (S8) (MLRA 147,148)  Thin Dark Surface (S9) (MLRA 147, 148)  Dark Surface (S8) (MLRA 147,148)  Coast Prairie Redox (A16) (MLRA 147,148)	ic Soils <sup>3</sup> :		
Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S9)  Dark	ic Soils <sup>3</sup> :		
ric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S9)  Dark Surface (S	ic Soils <sup>3</sup> :		
Iric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)  Coast Prairie Redox (A16) (MLRA 147,148)	ic Soils <sup>3</sup> :		
Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S8) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)  Coast Prairie Redox (A16) (MLRA 147,148)  Dark Surface (S9) (MLRA 147,148)	ic Soils <sup>3</sup> :		
Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (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 Suilide (A4) Loamy Gleyed Matrix (F2)			
Trydrogen Sunde (A4)  Stratified Layers (A5)  ✓ Depleted Matrix (F3)  ✓ Depleted Matrix (F3)  ✓ MIRA 136, 147)	)		
2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF	12)		
Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Other (Explain in Remarks)			
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) Umbric Surface (F13) (MLRA 136, 122)			
Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Indicators of hydrophytic v wetland hydrology must be wetland hydrology must be said to be sai	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or pro	oblematic.		
strictive Layer (if observed):			
Type: Hydric Soil Present? Yes •	No O		
begin (indies).	110 0		
marks:	gs.		

### Wetland 009b

Project/Site: Crooksville-North Newark 138 kV Transmission Line City	//County: Perry Sampling Date: 22-Sep-20
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20200922-08b
Investigator(s): AEH, WRL Sec	ction, Township, Range: S 21 T 14N R 14W
Landform (hillslope, terrace, etc.): Floodplain Loca	I relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR N Lat.: 39.7	76073 Long.: -82.09475 Datum: NAD83
Soil Map Unit Name: No - Nolin silt loam, 0 to 3 percent slopes, occasiona	lly flooded NWI classification: PSS1/EM1C
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 dis	V (A) N. (
Are Vegetation ☐ , Soil ✓ , or Hydrology ☐ naturally proble	
Summary of Findings - Attach site map showing samp	oling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes ● No ○	
Hydric Soil Present? Yes   No   No	Is the Sampled Area Yes  No O
Wetland Hydrology Present? Yes   No   No	within a Wetland?
Moxahala Creek (Stream 001). Wetland extends to north and south outsi	de of study area. Within 100-year floodplain=potentially problematic soils.
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	
☐ High Water Table (A2)       ☐ Hydrogen Sulfide Odor (         ☐ Saturation (A3)       ✓ Oxidized Rhizospheres a	
☐ Water Marks (B1) ☐ Presence of Reduced Iro	
Sediment Deposits (B2)	
Drift deposits (B3)  Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Other (Explain in Remark	
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7)	✓ Geomorphic Position (D2)  ☐ Shallow Aguitard (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
	Wetland Hydrology Present? Yes ● No ○
(includes capillary fringe)  Yes O No O Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, pre	evious inspections), if available:
Remarks:	
Multiple primary and secondary hydrology indicators present. Primary sour	
geomorphic position and overbank flow from perennial Stream 001 (Moxal north to Muskingum River, a TNW	nala Creek). Wetland drains to east to prennial Moxahala Creek that drains
The titre madalingam titre / a	

			minant		Sampling Point: w-aeh-20200922-08b
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	ecies? = el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  3 (A)
2	0		0.0%		Total Number of Dominant
3	0		0.0%		Species Across All Strata: 4 (B)
4			0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 75.0% (A/B)
6			0.0%		That Are OBE, TAOW, OF TAO.
7	0		0.0%		Prevalence Index worksheet:
8		Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r )	0	= Tc	tal Cover		0BL speci es x 1 =
1. Betula nigra	60	<b>✓</b>	73.2%	FACW	FACW species 112 x 2 = 224
2. Rubus occidentalis		<b>✓</b>	24.4%	UPL	FAC speci es x 3 =
3. Quercus palustris			2.4%	FACW	FACU speci es x 4 =
4.			0.0%		UPL speci es $\frac{20}{100}$ x 5 = $\frac{100}{100}$
5.			0.0%		Column Totals: <u>132</u> (A) <u>324</u> (B)
6.			0.0%		Prevalence Index = B/A =
7			0.0%		
8.			0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
10			0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= Tc	tal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.			0.0%		be present, unless disturbed or problematic.
5.			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.
Herb Stratum (Plot size: 5' r )	0	= Tc	tal Cover		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
4.01	30	<b>✓</b>	60.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
		<ul><li>✓</li></ul>	30.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody) plants,
Panicum dichotomiflorum     Onoclea sensibilis	5		10.0%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4.	0	$\overline{\Box}$	0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft
5	0		0.0%		in height.
6.	0		0.0%		Five Venetation Streets
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 woody vines, approximately 20 ft (6 m) or more in height and less than
11	0		0.0%		3 in. (7.6 cm) DBH.
12.	0		0.0%		Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size: 15'r )	50	= Tc	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants,
1.	0		0.0%		including herbaceous vines, regardless of size, and woody
2	0	$\Box$	0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
•	0		0.0%		Woody vines – Consists of all woody vines, regardless of
3	0	$\Box$	0.0%		height.
4	0		0.0%		
5 6	0		0.0%		Hydrophytic Vegetation
U	0	ات Tı	otal Cove		Present? Yes No
December (Include phate guard		1,	50 (0)		
Remarks: (Include photo numbers here or on a separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the separate sheethydrophytic vegetation indicator present as dominance test > 50%, or the		ecies	are FACW	and UPL	

Wetland 009b

Soil

Sampling Point:

w-aeh-20200922-08b

(inches)_		Matrix				edox Featu					
0.0		(moist)	%	Color	(moist)	_ %	<u>Tvpe</u>	Loc <sup>2</sup>	Texture	Rema	nrks
0-2	7.5YR	3/3	100						Silt Loam	distinct re	dox
2-9	2.5Y	4/1		10YR	4/4		C	PL	Clay	concentrati	ons
9-16	2.5Y	5/1	80	2.5Y	4/4	20	C	M	Clay	concentrati	
		,								·	
		`								·	
										',	
										<u> </u>	
					-					·	
										·	
ype: C=Cond	centration. [	D=Depleti	on. RM=Redu	ıced Matrix,	CS=Cover	ed or Coate	d Sand Grai	ns <sup>2</sup> Locat	ion: PL=Pore Lining	M=Matrix	
ydric Soil I									Indicators for	Problematic Hydric	Soils <sup>3</sup> :
Histosol (A					k Surface (		20) (14) 54		2 cm Muck	(A10) (MLRA 147)	
_	bedon (A2)					w Surface (			Coast Prair	ie Redox (A16)	
Black Histi Hvdrogen	Sulfide (A4)	)				face (S9) (M Matrix (F2)	LKA 14/, 14	+0)	(MLRA 147	,148)	
_	Layers (A5)	)							Piedmont f (MLRA 136	Floodplain Soils (F19)	
Stratified Layers (A5)						_ `	,	)			
Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)					<ul><li>✓ Very Shallow Dark Surface (TF12)</li><li>✓ Other (Explain in Remarks)</li></ul>						
-	ck Dark Surface (A12) Redox Depressions (F8)						Cirie (Explain in Nemarks)				
] Sandy Mu	ck Mineral (	S1) (LRR	N,			se Masses (I	F12) (LRR N	Ι,			
MLRA 147					(A 136)	o (F12) (MI	DA 124 12	))			
Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)  Diadrest Fleedalsia Saile (F10) (MLRA 140)					<sup>3</sup> Indicators of hydrophytic vegetation and						
☐ Sandy Redox (S5) ☐ Piedmont Floodplain Soils (F19) (MLFA 12:  ☐ Stripped Matrix (S6) ☐ Red Parent Material (F21) (MLRA 12:					wetland hydrology must be present, unless disturbed or problematic.						
	viati ix (30)			Red	Parent IVI	ateriai (FZT)	(IVILKA 127	, 147)	ui I	liess distalbed of probl	erriatic.
estrictive La	ayer (if ob:	served):									
									Hydric Soil Pres	ent? Yes 💿	No O
Туре:									Hydric 3011 Presi	ent? Yes 😊	140 🔾
	hes):										
Type: Depth (inchemarks:						Address of the second	an dictinct				
Type: Depth (inchemarks:		sent as I	ow chroma	/high value	matrix v	vitn comm	JII aistiilet	redox cor	ncentrations in ma	trix and pore linings	i.
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	JII UISTIIICT	redox cor	ncentrations in ma	trix and pore linings	i.
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vith comm	JII GISTIIICT	redox cor	ncentrations in ma	trix and pore linings	i.
Type: Depth (inchemarks:		sent as l	ow chroma	/high value	matrix v	vith comm	JII distilict	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vith commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vith comm	JII distillet	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma,	/high value	matrix v	vitn comm	JII distinct	redox coi	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox coi	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox coi	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inch marks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox coi	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	
Type: Depth (inchemarks:		sent as I	ow chroma,	/high value	matrix v	vitn commi	on distinct	redox cor	ncentrations in ma	trix and pore linings	

### Wetland 009c

Project/Site: Crooksville-North	Newark 138 kV Transmission Line	City/County: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP		State: OH	Sampling Point: w-aeh-20200922-08c
Investigator(s): AEH, WRL		Section, Township, Range: S	21 T 14N R 14W
Landform (hillslope, terrace, et	tc.): Floodplain	Local relief (concave, convex, no	one): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): L	LRR N Lat.	:: 39.7609 Long	g.: -82.09471 Datum: NAD83
Soil Map Unit Name: No - No	lin silt loam, 0 to 3 percent slopes, occ	casionally flooded	NWI classification: PSS1/EM1C
Are climatic/hydrologic conditi	ions on the site typical for this time of	year? Yes • No O (If no, e	explain in Remarks.)
Are Vegetation , Soil			Circumstances" present? Yes ● No ○
Are Vegetation . , Soil	, or Hydrology naturally		xplain any answers in Remarks.)
Summary of Findings	- Attach site map showing	sampling point locations	s, transects, important features, etc.
Hydrophytic Vegetation Prese			
Hydric Soil Present?	Yes   No	Is the Sampled Area	Yes ● No ○
Wetland Hydrology Present?	Yes ● No O	within a Wetland?	
			SS/PFO complex, in 100-year floodplain of 0-year floodplain=potentially problematic soils.
Wetland Hydrology Indicators			
Primary Indicators (minimum 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 I Water-Stained Leaves (B9) Aquatic Fauna (B13) Field Observations: Surface Water Present?	n of one required; check all that apply)  True Aquatic Plat Hydrogen Sulfide Oxidized Rhizosp Presence of Red Recent Iron Red Thin Muck Surfar Other (Explain in	nts (B14) e Odor (C1) bheres along Living Roots (C3) uced Iron (C4) uction in Tilled Soils (C6) ce (C7) n Remarks)  :	Secondary Indicators (minimum of two required)  Surface Soil Cracks (B6)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Microtopographic Relief (D4)  FAC-neutral Test (D5)
Saturation Present?	Ves No Depth (inches)	Wetland Hydro	ology Present? Yes   No
(includes capillally ininge)	eam gauge, monitoring well, aerial pho		ble:
		· · · · · · · · · · · · · · · · · · ·	
Remarks:			
	rbank flow from perennial Stream 001		itation, concentration of surface runoff in sto east to perennial stream Moxahala Creek that

			minant		Sampling Point: w-aeh-20200922-08c
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	ecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1. Acer saccharinum	40_	✓	57.1%	FACW	That are OBL, FACW, or FAC:  6 (A)
2. Betula nigra	30	<b>✓</b>	42.9%	FACW	Total Number of Dominant
3	0		0.0%		Species Across All Strata:6(B)
4	0	$\sqcup$	0.0%		
5	0	$\sqcup$	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6			0.0%		That Are Obt., FACW, of FAC.
7		$\square$	0.0%		Prevalence Index worksheet:
8		Ш	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	70	= Tc	tal Cover	-	0BL speci es
4 Potulo piero	20	<b>✓</b>	58.8%	FACW	FACW species 100 x 2 = 200
O 111 to 1 o 1 o 1 1 1 1 1 1 0 o o			14.7%	FACU	FAC speci es $\underline{19}$ x 3 = $\underline{57}$
Liriodendron tulipirera     Fraxinus pennsylvanica		$\Box$	14.7%	FACW	FACU speci es $5 \times 4 = 20$
		$\Box$	5.9%	FAC	UPL speci es
<b>F</b> 11 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2	$\Box$	5.9%	FAC	Column Totals: <u>124</u> (A) <u>277</u> (B)
Liquidambar styraciflua     .		$\Box$	0.0%		Prevalence Index = $B/A = 2.234$
7		$\Box$	0.0%		
8.		$\Box$	0.0%		Hydrophytic Vegetation Indicators:
9		$\Box$	0.0%		Rapid Test for Hydrophytic Vegetation
			0.0%		Dominance Test is > 50%
10	34	 _ To	tal Cover		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)					Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2			0.0%		
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			0.0%		
5	0		0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:  Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		Ш,	0.0%		(7.6 cm) or more in diameter at breast height (DBH), regardless
Herb Stratum (Plot size: <u>5' r</u> )			tal Cover	-	of height. Sapling/shrub stratum – Consists of woody plants, excluding
1. Cinna arundinacea	5	<b>✓</b>	50.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Rubus idaeus	5	✓	50.0%	FAC	Herb stratum - Consists of all herbaceous (non-woody) plants,
3	0	Щ	0.0%		regardless of size, and all other plants less than 3.28 ft tall.
4		$\square$	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	$\square$	0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8.			0.0%		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).  Sapling stratum – Consists of woody plants, excluding woody
10	0	$\square$	0.0%		vines, approximately 20 ft (6 m) or more in height and less than
11	0	$\square$	0.0%		3 in. (7.6 cm) DBH.
12		Ш	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: 15' r )	10	= Tc	tal Cover	-	Herb stratum – Consists of all herbaceous (non-woody) plants,
1. Toxicodendron radicans	10	✓	100.0%	FAC	including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2	0		0.0%		in height.
3.	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0		0.0%		height.
5.	0		0.0%		Lludraphytia
6	0		0.0%		Hydrophytic Vegetation
	10	= To	otal Cove	r	Present? Yes No O
Remarks: (Include photo numbers here or on a separate she	et.)				1
Hydrophytic vegetation indicator present as dominance test > 50%,	,	ecies	are FACW	/ and FAC	

Sampling Point:

w-aeh-20200922-08c

(inches)_		Matrix				dox Featu	1				
0.2		(moist)	%	Color	(moist)	_ %	Tvpe	Loc <sup>2</sup>	Texture	Rem	narks
0-2	2.5Y	4/4	100			-			Silt Loam	distinct r	edox
2-7	2.5Y	4/1	80	2.5Y	4/4		C	M	Clay	concentrat promi nent	ions
7-16	2.5Y	5/1	80	2.5Y	4/4	20	C	PL	Clay	concentrat	
		1								· ·	
		`								'	
										<del>`</del>	
										·	
ype: C=Cond	centration. D	D=Depletion	on. RM=Redu	iced Matrix,	CS=Covere	ed or Coate	d Sand Grain	ns <sup>2</sup> Locat	ion: PL=Pore Lining.	M=Matrix	
ydric Soil I									Indicators for I	Problematic Hydrid	c Soils <sup>3</sup> :
Histosol (A					k Surface (	•	20) (1 " 2 1	47.4.0\	2 cm Muck	(A10) (MLRA 147)	
] Histic Epip ] Black Hist	pedon (A2)						S8) (MLRA 1 LRA 147, 14			e Redox (A16)	
_	Sulfide (A4)	١				ace (39) (M Matrix (F2)	LKA 147, 14	10)	(MLRA 147,	,	
_	Layers (A5)	'							Piedmont F (MLRA 136	loodplain Soils (F19)	
Stratified Layers (A5)       ✓ Depleted Matrix (F3)         2 cm Muck (A10) (LRR N)       ☐ Redox Dark Surface (F6)         Depleted Below Dark Surface (A11)       ☐ Depleted Dark Surface (F7)						`	,	2)			
						<ul><li>☐ Very Shallow Dark Surface (TF12)</li><li>☐ Other (Explain in Remarks)</li></ul>					
	Thick Dark Surface (A12) Redox Depressions (F8)						Cirie (Explain in Nemarks)				
] Sandy Mu	ck Mineral (	S1) (LRR	٧,			se Masses (l	F12) (LRR N	Ι,			
MLRA 147	,				A 136)	- (E12) (MI	DA 124 122	))			
Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)  Diadmost Floodylpic Scile (F10) (MLRA 140)					<sup>3</sup> Indicators of hydrophytic vegetation and						
Sandy Redox (S5)					wetland hydrology must be present, unless disturbed or problematic.						
	wati ix (50)			□ Kec	Parent ivia	iteriai (FZT)	(IVILKA 127	, 147)	un	ess disturbed or prof	Diematic.
estrictive La	ayer (if obs	served):									
									Hydric Soil Prese	ent? Yes •	No O
Туре:									Trydric 3011 Frese	res e	140 🔾
Type: Depth (inch	nes):										
Depth (inchemarks:					matriv w	ith comm	on distinct	redox cor	ncentrations in mat	rix and pore lining	IS.
Depth (inchemarks:		sent as l	ow chroma,	high value	IIIatiix W					1	,
Depth (inchemarks:		sent as l	ow chroma	′high valu∈	THATTIX W					,	,
Depth (inchemarks:		sent as l	ow chroma	'high value	matrix w						,
Depth (inch		sent as l	ow chroma	/high value	THATIA W						,
Depth (inch		sent as l	ow chroma,	'high value	THATIA W						,
Depth (inch		sent as l	ow chroma,	'high value	maura w						,
Depth (inch		sent as l	ow chroma,	'high value	maura w						
Depth (inch		sent as l	ow chroma,	'high value	maura w						
Depth (inch		sent as l	ow chroma	'high value	maura w						
Depth (inch		sent as l	ow chroma,	'high value	maura v						
Depth (inch		sent as l	ow chroma	'high value	maura v						
Depth (inch		sent as l	ow chroma,	'high value	maura w						
Depth (inchemarks:		sent as l	ow chroma	'high value	maura vo						
Depth (inchemarks:		sent as l	ow chroma	'high value	maura vo						
Depth (inchemarks:		sent as l	ow chroma	'high value	maura vo						
Depth (inchemarks:		sent as l	ow chroma	'high value	maura vo						
Depth (inchemarks:		sent as l	ow chroma	'high value	maura vo						
Depth (inch		sent as l	ow chroma	'high value	maura vo						

Project/Site: Crooksville-North Newark 138 K	V Transmission Line City/C	ounty: Perry	Sampling Date: 22-Sep-20
Applicant/Owner: AEP		State: OH	Sampling Point: upl-aeh-20200922-07
Investigator(s): AEH, WRL	Section	on, Township, Range: S 21	T 14N R 14W
Landform (hillslope, terrace, etc.): Flood	plain Local re	elief (concave, convex, none):	convex Slope: 1.0 % / 45.0 °
Subregion (LRR or MLRA): LRR N	Lat.: 39.760	)54 Long.:82	2.094706 Datum: NAD83
Soil Map Unit Name: No - Nolin silt Ioam, (	0 to 3 percent slopes, occasionally	flooded	WI classification: N/A
Are climatic/hydrologic conditions on the si	te typical for this time of year? Y	'es ⊙ No O (If no, explair	n in Remarks.)
Are Vegetation 🔲 , Soil 🔲 , or Hy	ydrology 🔲 significantly distur	bed? Are "Normal Circum:	nstances" present? Yes   No
Are Vegetation 🔲 , Soil 🗹 , or Hy	ydrology	atic? (If needed, explain	any answers in Remarks.)
Summary of Findings - Attach	site map showing sampli	ng point locations, tra	insects, important features, etc.
Hydrophytic Vegetation Present? Yes			
Hydric Soil Present? Yes		Is the Sampled Area Yes	) <sub>No</sub> ●
Wetland Hydrology Present? Yes	O No ●	within a Wetland?	
Sample point Upland 008 (upl-aeh-20200 grade. In 100-year floodplain of Moxahala criteria not met.  Hydrology			d point as hydric soil and wetland hydrology
Wetland Hydrology Indicators:  Primary Indicators (minimum of one requi		Sur	lary Indicators (minimum of two required)
Surface Water (A1) High Water Table (A2)	True Aquatic Plants (B14)		arsely Vegetated Concave Surface (B8)
Saturation (A3)	<ul><li>☐ Hydrogen Sulfide Odor (C1)</li><li>☐ Oxidized Rhizospheres along</li></ul>		ainage Patterns (B10) ss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (		y Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Til		ayfish Burrows (C8)
Drift deposits (B3) Algal Mat or Crust (B4)	Thin Muck Surface (C7)		turation Visible on Aerial Imagery (C9) Inted or Stressed Plants (D1)
Iron Deposits (B5)	Other (Explain in Remarks)		omorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			allow Aquitard (D3)
Water-Stained Leaves (B9)			crotopographic Relief (D4)
Aquatic Fauna (B13) Field Observations:		L] FAC	C-neutral Test (D5)
Surface Water Present? Yes No	Depth (inches): 0	)	
Water Table Present? Yes O No	Depth (inches):		
Saturation Present?  (includes capillary frings)  Yes O No		Wetland Hydrology P	Present? Yes ○ No •
(includes capillary fringe)  Describe Recorded Data (stream gauge, m		ous inspections), if available:	
5 4			
Remarks:  One secondary hydrology indicator presen	+		
Office Secondary Trydrology indicator present	t.		

			ominant		Sampling Point: upl-aeh-20200922-07
Tree Stratum (Plot size: 30' r )	Absolute % Cover	Re	Ji. Oti at.	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1	0		0.0%		That are OBL, FACW, or FAC:  3 (A)
2	0	$\square$	0.0%		Total Number of Deminant
3			0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
4			0.0%		
5			0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 60.0% (A/B)
6.			0.0%		That Are OBL, FACW, or FAC: 60.0% (A/B)
7	0		0.0%		Prevalence Index worksheet:
8.	0		0.0%		Total % Cover of: Multiply by:
	0	= Tc	tal Cover		0BL speci es x 1 =
Sapling-Sapling/Shrub Stratum (Plot size: 15' r	1				FACW species 25 x 2 = 50
1. Rubus occidentalis			36.1%	UPL	FAC speciles 44 x 3 = 132
2. Sambucus nigra		<b>✓</b>	30.1%	FAC	FACU speci es $35 \times 4 = 140$
3. Betula nigra			12.0%	FACW	UPL species $30 \times 5 = 150$
4. Hypericum prolificum		Ц.	12.0%	FACU	'
5. Prunus serotina		Ц.	6.0%	FACU	Col umn Total s:134 (A)472 (B)
6. Ulmus rubra		Ц.	3.6%	FAC	Prevalence Index = B/A = 3.522
7		<u></u>	0.0%		Hydrophytic Vegetation Indicators:
8		$\sqcup$	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	$\sqsubseteq$	0.0%		✓ Dominance Test is > 50%
10	0		0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= To	tal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2.	0		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3.			0.0%	-	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.			0.0%		be present, unless disturbed or problematic.
5.			0.0%		Definition of Vegetation Strata:
6.	0		0.0%		Four Vegetation Strata:
	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in.
7		, _ Тс	otal Cover	-	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' r</u> )					Sapling/shrub stratum – Consists of woody plants, excluding
1. Polystichum acrostichoides			39.2%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Onoclea sensibilis	10	<b>✓</b> ,	19.6%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28 ft tall.
3. Dichanthelium clandestinum	10	✓,	19.6%	FAC	1 -
4. Thelypteris palustris	5	Ц.	9.8%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5. Symphyotrichum pilosum	3	Ц.	5.9%	FAC	
6. Solidago rugosa	3	Ц.	5.9%	FAC	Five Vegetation Strata:
7		<u></u>	0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8		$\Box$	0.0%		ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0	$\sqcup$	0.0%		diameter at breast height (DBH).  Sapling stratum – Consists of woody plants, excluding woody
10	0	$\sqcup$	0.0%		vines, approximately 20 ft (6 m) or more in height and less than
11	0		0.0%		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: 15' r )	51	= To	tal Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m)
2			0.0%		in height.
3	0	Ц.	0.0%		Woody vines – Consists of all woody vines, regardless of height.
4	0	Ц.	0.0%		neight.
5	0	$\sqcup$	0.0%		Hydrophytic
6	0	Ш,	0.0%		Vegetation Var A Na O
	0	= To	otal Cover	·	Present? Yes No C
Remarks: (Include photo numbers here or on a separate shee	et.)				
Hydrophytic vegetation indicator present as dominance test > 50%, or	dominant sp	ecies	are FACW	/, FAC, FACI	U and UPL

Upland 008
Sampling Point: upl-aeh-20200922-07

	ibriou: (Di	escribe to Matrix	e aeptn r 		the indicator or co dox Features	the a	bsence of indicators.)		
Depth Matrix (inches) Color (moist) %			%	Color (moist) % Type 1 Loc2			Texture Remarks		
0-3	10YR	4/3	100				Silt Loam		
3-14	2.5Y	3/3	80	2.5Y 3/4	20 C	М	Sandy Clay Loam	,	
								'	
								,	
								<u>'</u>	
								,	
								,	
		_			•			'-	
		_			·				
Type: C=Con	centration.	D=Depleti	on. RM=Redu	ced Matrix, CS=Cover	ed or Coated Sand Gra	ains <sup>2</sup> Locat	ion: PL=Pore Lining. M=M	atrix	
Hydric Soil I		:					Indicators for Proble	ematic Hydric Soils <sup>3</sup> :	
Histosol (					Dark Surface (S7)			(MLRA 147)	
	pedon (A2)			Polyvalue Below Surface (S8) (MLRA 147,148)  Thin Dark Surface (S9) (MLRA 147, 148)			Coast Prairie Redox (A16) (MLRA 147,148)		
Black Hist									
	Sulfide (A4			Loamy Gleyed Matrix (F2)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Dark Surface (F7)			Piedmont Floodplain Soils (F19) (MLRA 136, 147)  Very Shallow Dark Surface (TF12)		
	Layers (A5)								
	k (A10) (LR								
	Below Dark		411)				Other (Explain in	Remarks)	
	k Surface (/		N.I.		Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N,				
MLRA 14	ick Mineral 7, 148)	(ST) (LRR	N,	MLRA 136)					
	eyed Matrix	(S4)		Umbric Surface (F13) (MLRA 136, 122)					
Sandy Re		, ,		Piedmont Floodplain Soils (F19) (MLRA 148)			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Stripped I	Matrix (S6)			Red Parent Ma	Parent Material (F21) (MLRA 127, 147) unless disturbed or problem			sturbed or problematic.	
	(16.1								
Restrictive L	ayer (if ob	served):							
Type:	boo).						Hydric Soil Present?	Yes ○ No •	
Depth (inc	nes):								
Remarks:									
No hydric soi	l indicator	s present							

Wetland 009

Site: Cr	ooksville- New	vark Project	Rater(s): Audrey	<sup>'</sup> Hanner	Date:	9/22/2020
				Field Id:	•	
	3 3	Metric 1. We	etland Area (size).	w-aeh-20200922-	08	
max 6 pts	subtotal	Select one size cla	ss and assign score.			
		10 to <25 acres (4 t x 3 to <10 acres (1.2 0.3 to <3 acres (0.1	.1 to <20.2ha) (5 pts) o <10.1ha) (4 pts) to <4ha) (3 pts) 2 to <1.2ha) (2pts) .04 to <0.12ha) (1 pt)	1.50 a	cres	
	8 11	Metric 2. Up	land buffers and su	rrounding land use.		
max 14 pts.	subtotal	WIDE. Buffers aver x MEDIUM. Buffers a NARROW. Buffers VERY NARROW. E 2b. Intensity of sur VERY LOW. 2nd gr x LOW. Old field (>10 x MODERATELY HIG	age 50m (164ft) or more around verage 25m to <50m (82 to <16-average 10m to <25m (32ft to <i5uffers (<32ft)="" <10m="" arc="" average="" fenced="" forest,="" land="" older="" one="" or="" owth="" pasture,<="" prairie,="" residential,="" rounding="" sav.)="" secors.="" select="" shrubland,="" td="" use.="" years),="" young=""><td>4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) bund wetland perimeter (0) or double check and average. annah, wildlife area, etc. (7) and growth forest. (5) park, conservation tillage, new fallow field</td><td></td><td></td></i5uffers>	4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) bund wetland perimeter (0) or double check and average. annah, wildlife area, etc. (7) and growth forest. (5) park, conservation tillage, new fallow field		
	10.0 21.0	Metric 3. Hy	trial, open pasture, row cropping	g, mining, construction. (1)		
max 30 pts.	subtotal	3a. Sources of Wa	ter. Score all that apply.	3b. Connectivity. Score all x 100 year floodplain (1)		
	-	Other groundwater x Precipitation (1)	(3)	x Between stream/lake and of Part of wetland/upland (e.g.		
		Seasonal/Intermitte	nt surface water (3)	Part of riparian or upland co		
			ater (lake or stream) (5) r depth. Select one.	3d. Duration inundation/sa Semi- to permanently inund	aturation. Score one or dbl ch	eck.
	Γ	>0.7 (27.6in) (3)	r deptili. Gelect one.	Regularly inundated/saturat		
		0.4 to 0.7m (15.7 to	27.6in) (2)	Seasonally inundated (2)		
	<u> </u>	x <0.4m (<15.7in) (1)	o natural hydrologic rogimo. 9	x Seasonally saturated in upp Score one or double check and average		
	Г	None or none appa		Check all disturbances ob		
		x Recovered (7)	, ,		x point source (nonstormwat	er)
		x Recovering (3)	(4)	tile	filling/grading	
	L	Recent or no recov	ery (1)	<del></del>	x road bed/RR track x dredging	
				stormwater input	Other:	
	11 32	Metric 4. Ha	bitat Alteration and	Development.	<u></u>	
max 20 pts.	subtotal		ırbance. Score one or double	check and average.		
	_	None or none appa x Recovered (3)	rent (4)			
		x Recovering (2)				
		Recent or no recov	ery (1)			
	г		pment. Select only one and as	sign score.		
		Excellent (7) Very good (6)				
		Good (5)				
		x Moderately good (4	)			
		Fair (3)				
		Poor to fair (2) Poor (1)				
	L		on. Score one or double check	c and average.		
		None or none appa	rent (9)	Check all disturbances obse		
		x Recovered (6) x Recovering (3)		x mowing grazing	<ul> <li>x shrub/sapling removal herbaceous/aquatic bed re</li> </ul>	moval
	-	Recent or no recov	ery (1)		x sedimentation	movai
	L			x selective cutting	dredging	
				x woody debris removal	farming	
	20			toxic pollutants	nutrient enrichment	
	32	00444 - 5.5	- 0 00 50			
	subtotal this pa	age UKAM v. 5.0 Field	Form Quantitative Rating			

w-aeh-20200922-08 oram.xlsm | test\_Field

#### Wetland 009

Site: Crook	sville- Ne	wark Project	Rater(s): Audrey	/ Hanner	,	Date:	9/22/2020
		-			Field Id:		
	32	2			w-aeh-20200922-08		
	subtotal this	s page					
	0 32	Metric 5. Spec	ial Wetlands.				
max 10 pts.	subtotal	Check all that ap	ply and score as indi	icated.			
		Bog (10)	. ,				
		Fen (10)					
		Old growth forest (10)  Mature forested wetlan	d (E)				
			ary wetland-unrestricted hyd	Irology (10)			
			ary wetland-restricted hydrol				
		Lake Plain Sand Prairie					
		Relict Wet Praires (10)			(40)		
			te/federal threatened or enda ongbird/water fowl habitat or		les (10)		
			ee Question 5 Qualitative Ra				
	7 39	Metric 6. Plan	t communities, int	terspers	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Vege	etation Communities.		Vegetation Community Cov	er Scale	
		Score all present using	0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed		1	Present and either comprises small pa		
		0 Emergent 1 Shrub			vegetation and is of moderate quality, significant part but is of low quality	or comprises a	
		2 Forest		2	Present and either comprises significa	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality of		
		Open water			part and is of high quality		
		Other 6b. horizontal (plan vi	out Interesperator	3	Present and comprises significant part vegetation and is of high quality	, or more, of wetland's 3	
		Select only one.	ew) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)			disturbance tolerant native species	I the venetation med	
		x Moderately low (2) Low (1)			Native spp are dominant component or although nonnative and/or disturbance		
		None (0)			can also be present, and species diver	• • • • • • • • • • • • • • • • • • • •	
		6c. Coverage of invas	ive plants. Refer		moderately high, but generallyw/o pres		
		Table 1 ORAM long for			threatened or endangered spp to		
		or deduct points for cov Extensive >75% cover			A predominance of native species, with and/or disturbance tolerant native spp		
		Moderate 25-75% cover	· ,		absent, and high spp diversity and ofte	•	
		Sparse 5-25% cover (-			the presence of rare, threatened, or en		
		Nearly absent <5% cov	ver (0)				
		x Absent (1)		0	Mudflat and Open Water Class Qual	ty	
		6d. Microtopography. Score all present using			Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/			Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		1 Coarse woody debris >			High 4ha (9.88 acres) or more	·	
		0 Standing dead >25cm					
		Amphibian breeding po	ools	0	Microtopography Cover Scale Absent		
					Present very small amounts or if more	common	
				•	of marginal quality		
				2	Present in moderate amounts, but not		
Modified Catego			_		quality or in small amounts of highest of	· · · · · · · · · · · · · · · · · · ·	
	39 GRANI	D TOTAL(max 100 pts	)	3	Present in moderate or greater amoun	ts	
					and of highest quality		



**Client Name:** 

Site Location:

Project No.

AEP

Crooksville-North Newark 138 kV Transmission Line Rebuild Project

60616110

### Wetland 008

Date:

September 22, 2020

**Description:** 

PEM wetland

Category 1

Soil Pit



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

12/2/2021 2:47:16 PM

in

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

Summary: Notice Letter of Notification Part 5 electronically filed by Hector Garcia-Santana on behalf of AEP Ohio Transmission Company, Inc.