

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 8**

Sample Point: **SP 19**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Juncus tenuis</i>	15	Y	FAC
2.	<i>Cyperus esculentus</i>	60	Y	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **75**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	60	x 2 =	120
FAC spp.	15	x 3 =	45
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **75** (A) **165** (B)

Prevalence Index = B/A = **2.200**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 12/31/19							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio							
Soil Unit: Algiers silt loam, frequently flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 8							
Landform: Side slope		Local Relief: Linear		Sample Point: SP 20							
Slope (%): 2		Latitude: 40.21133		Longitude: -82.500341							
		Datum: WGS 84		Community ID: UPL							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Section: N/A								
			Township: N/A								
			Range: N/A Dir: N/A								
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Algiers silt loam, frequently flooded											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	1	10YR	4/3	90	10YR	4/6	10	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed) Type: Depth:			Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 8**

Sample Point: **SP 20**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	Zea mays	60	Y	UPL
2.	Taraxacum officinale	5	N	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **65**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	5	x 4 =	20
UPL spp.	60	x 5 =	300

Total **65** (A) **320** (B)

Prevalence Index = B/A = **4.923**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 12/31/19							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio							
Soil Unit: Algiers silt loam, frequently flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 9							
Landform: Toeslope		Local Relief: Concave		Sample Point: SP 21							
Slope (%): 0		Latitude: 40.210447	Longitude: -82.500081	Community ID: PEM							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 2 (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 50%; background-color: #f0f0f0; padding: 5px; text-align: center;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Algiers silt loam, frequently flooded											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	1	10YR	2/1	90	10YR	5/6	10	C	PL	silt loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹											
<ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 9**

Sample Point: **SP 21**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Juncus effusus</i>	10	N	UPL
2.	<i>Cyperus esculentus</i>	40	Y	FACW
3.	<i>Apocynum cannabinum</i>	10	N	FAC
4.	<i>Setaria faberi</i>	5	N	FACU
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **65**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	40	x 2 =	80
FAC spp.	10	x 3 =	30
FACU spp.	5	x 4 =	20
UPL spp.	10	x 5 =	50

Total **65** (A) **180** (B)

Prevalence Index = B/A = **2.769**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 12/31/19						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio						
Soil Unit: Algiers silt loam, frequently flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 9						
Landform: Plain		Local Relief: Linear		Sample Point: SP 22						
Slope (%): 0		Latitude: 40.21035	Longitude: -82.500017	Community ID: UPL						
Datum: WGS 84										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Algiers silt loam, frequently flooded										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	6	1	10YR	4/2	100	--	--	--	--	silty clay loam
6	16	2	10YR	3/1	70	--	--	--	--	silty clay loam
--	--	2	10YR	4/6	30	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>										
Indicators for Problematic Soils ¹ <ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 										
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 9**

Sample Point: **SP 22**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	Zea mays	70	Y	UPL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **70**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	70	x 5 =	350

Total **70** (A) **350** (B)

Prevalence Index = B/A = **5.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio							
Soil Unit: Amanda silt loam		NWII/WWI Classification:		Wetland ID: Wetland 10							
Landform: Depression		Local Relief: Concave		Sample Point: SP 23							
Slope (%): 2	Latitude: 40.22929	Longitude: -82.505351	Datum: WGS 84	Community ID: PEM							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A							
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
Field Observations:											
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)										
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: 11 (in.)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Amanda silt loam											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	1	1	10YR	3/1	100	--	--	--	--	silt loam	
1	16	2	10YR	4/1	95	10YR	4/6	5	C	M	silt loam
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
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--	--	--	--	--	--	--	--	--	--	--	
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹						
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)						
Restrictive Layer (If Observed) Type: Depth:					Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 10**

Sample Point: **SP 23**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	100	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	100	x 2 =	200
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **100** (A) **200** (B)

Prevalence Index = B/A = **2.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20										
Applicant: American Electric Power (AEP)				County: Licking										
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio										
Soil Unit: Amanda silt loam		NWII/WWI Classification:		Wetland ID: Wetland 10										
Landform: Depression		Local Relief: Concave		Sample Point: SP 24										
Slope (%): 0		Latitude: 40.22963	Longitude: -82.505417	Community ID: PSS										
		Datum: WGS 84		Section: N/A										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?														
SUMMARY OF FINDINGS														
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No												
Remarks:														
HYDROLOGY														
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):														
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>														
Field Observations:														
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No														
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No														
Depth: (in.)														
Depth: (in.)														
Depth: 11 (in.)														
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A														
Remarks:														
SOILS														
Map Unit Name: Amanda silt loam														
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)														
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)					
			Color (Moist)	%	Color (Moist)	%	Type	Location						
0	1	1	10YR	3/1	100	--	--	--	--	silt loam				
1	16	2	10YR	4/1	95	10YR	4/6	5	C	M	silt loam			
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹									
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)				
					<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>									
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No										
Remarks:														

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 10**

Sample Point: **SP 24**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	Salix nigra	50	Y	OBL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **50**

Herb Stratum (Plot size: 5 ft radius)

1.	Phalaris arundinacea	100	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	50	x 1 =	50
FACW spp.	100	x 2 =	200
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **150** (A) **250** (B)

Prevalence Index = B/A = **1.667**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Amanda silt loam	NW1/WW1 Classification:			Wetland ID: Wetland 10						
Landform: Side slope	Local Relief: Linear			Sample Point: SP 25						
Slope (%): 2	Latitude: 40.22971	Longitude: -82.505134	Datum: WGS 84	Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A						
Remarks:										
SOILS										
Map Unit Name: Amanda silt loam										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	1	10YR	4/4	100	--	--	--	--	silt loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹					
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					
					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)					
Restrictive Layer (If Observed) Type: Depth:					Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 10**

Sample Point: **SP 25**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus allegheniensis</i>	60	Y	FACU
2.	<i>Aesculus flava</i>	15	N	FACU
3.	<i>Cornus florida</i>	15	N	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **90**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Alliaria petiolata</i>	15	Y	FAC
2.	<i>Phytolacca americana</i>	30	Y	FACU
3.	<i>Phalaris arundinacea</i>	10	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **55**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	10	x 2 =	20
FAC spp.	15	x 3 =	45
FACU spp.	120	x 4 =	480
UPL spp.	0	x 5 =	0

Total **145** (A) **545** (B)

Prevalence Index = B/A = **3.759**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio							
Soil Unit: Carlisle muck		NW/WWI Classification: PEM1C		Wetland ID: Wetland 11							
Landform: Depression		Local Relief: Concave		Sample Point: SP 26							
Slope (%): 2	Latitude: 40.22779	Longitude: -82.505274	Datum: WGS 84	Community ID: PEM							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A							
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks: PEM1C											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Carlisle muck											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	1	10YR	2/1	42	--	--	--	--	silt loam	
0	16	1	10YR	4/1	50	10YR	4/6	8	C	M	silt loam
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
--	--	--	--	--	--	--	--	--	--	--	
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Indicators for Problematic Soils ¹ <ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 11**

Sample Point: **SP 26**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	<i>Fraxinus pennsylvanica</i>	20	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **20**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	75	Y	FACW
2.	<i>Polygonum sagittatum</i>	15	N	OBL
3.	<i>Verbesina alternifolia</i>	10	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	15	x 1 =	15
FACW spp.	105	x 2 =	210
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **120** (A) **225** (B)

Prevalence Index = B/A = **1.875**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Carlisle muck		NW1/WW1 Classification:		Wetland ID: Wetland 11						
Landform: Rise		Local Relief: Convex		Sample Point: SP 27						
Slope (%): 3		Latitude: 40.22791	Longitude: -82.505228	Community ID: UPL						
Datum: WGS 84										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A						
Remarks:										
SOILS										
Map Unit Name: Carlisle muck										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	1	10YR	3/3	100	--	--	--	--	silt loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> Restrictive Layer (If Observed) Type: Depth: </div> <div style="width: 30%; text-align: center;"> Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 11**

Sample Point: **SP 27**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus allegheniensis</i>	10	Y	FACU
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **10**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Verbesina alternifolia</i>	10	N	FACW
2.	<i>Schedonorus arundinaceus</i>	50	Y	FACU
3.	<i>Plantago lanceolata</i>	5	N	FACU
4.	<i>Trifolium pratense</i>	15	N	FACU
5.	<i>Solidago canadensis</i>	30	Y	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **110**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	10	x 2 =	20
FAC spp.	0	x 3 =	0
FACU spp.	110	x 4 =	440
UPL spp.	0	x 5 =	0

Total **120** (A) **460** (B)

Prevalence Index = B/A = **3.833**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20											
Applicant: American Electric Power (AEP)				County: Licking											
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio											
Soil Unit: Pewamo silty clay loam		NW1/WW1 Classification: PEM1A		Wetland ID: N/A											
Landform: Depression		Local Relief: Concave		Sample Point: SP 28											
Slope (%): 0		Latitude: 40.23536	Longitude: -82.505852	Community ID: UPL non-JD											
Datum: WGS 84				Section: N/A											
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?															
SUMMARY OF FINDINGS															
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Remarks:															
HYDROLOGY															
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):															
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>															
Field Observations:															
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)															
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A											
Remarks:															
SOILS															
Map Unit Name: Pewamo silty clay loam															
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)															
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)						
			Color (Moist)	%	Color (Moist)	%	Type	Location							
0	16	1	10YR	4/2	100	--	--	--	--	silty clay loam					
--	--	--	--	--	--	--	--	--	--	--					
--	--	--	--	--	--	--	--	--	--	--					
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--	--	--	--	--	--	--	--	--	--	--					
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹										
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)					
					<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>										
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No										
Remarks:															

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **N/A**

Sample Point: **SP 28**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Herb Stratum (Plot size: 5 ft radius)

1.	Glycine max	15	Y	UPL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
Total Cover =		15		

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
Total Cover =		0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	15	x 5 =	75

Total **15** (A) **75** (B)

Prevalence Index = B/A = **5.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio							
Soil Unit: Pewamo silty clay loam		NW/WWI Classification: PSS1/EM1C		Wetland ID: Wetland 12							
Landform: Basin		Local Relief: Concave		Sample Point: SP 29							
Slope (%): 0		Latitude: 40.24204	Longitude: -82.506641	Community ID: PEM							
Datum: WGS 84											
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)				<input type="checkbox"/> Yes <input type="checkbox"/> No							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present?		Section: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		Township: N/A							
				Range: N/A Dir: N/A							
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Wetland Hydrology Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks: PSS1/EM1C											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 1 (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: Surface (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: Surface (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Pewamo silty clay loam											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	1	10YR	4/1	88	2.5YR	4/1	12	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--	--
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Restrictive Layer (If Observed) Type: Depth: </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Remarks:											

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 12**

Sample Point: **SP 29**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	95	Y	FACW
2.	<i>Polygonum sagittatum</i>	5	N	OBL
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	5	x 1 =	5
FACW spp.	95	x 2 =	190
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **100** (A) **195** (B)

Prevalence Index = B/A = **1.950**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Pewamo silty clay loam		NW1/WW1 Classification: PSS1/EM1C		Wetland ID: Wetland 12						
Landform: Basin		Local Relief: Concave		Sample Point: SP 30						
Slope (%): 0		Latitude: 40.24258	Longitude: -82.506756	Community ID: PSS						
Datum: WGS 84										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)				<input type="checkbox"/> Yes <input type="checkbox"/> No						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present?		Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Wetland Hydrology Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks: PSS1/EM1C										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Pewamo silty clay loam										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	4	1	10YR	3/1	100	--	--	--	--	silty clay loam
4	16	2	10YR	3/4	90	10YR	4/6	10	C	M
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹					
<ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat 					<ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions 					
					<ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 					
Restrictive Layer (If Observed) Type: Depth:					Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 12**

Sample Point: **SP 30**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Cornus sericea</i>	20	Y	FACW
2.	<i>Rubus allegheniensis</i>	10	Y	FACU
3.	<i>Rosa palustris</i>	10	Y	OBL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **40**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Solidago gigantea</i>	30	Y	FACW
2.	<i>Carex lurida</i>	40	Y	OBL
3.	<i>Epilobium coloratum</i>	15	N	OBL
4.	<i>Agrimonia parviflora</i>	15	N	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **80%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	<u>65</u>	x 1 =	<u>65</u>
FACW spp.	<u>65</u>	x 2 =	<u>130</u>
FAC spp.	<u>0</u>	x 3 =	<u>0</u>
FACU spp.	<u>10</u>	x 4 =	<u>40</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>

Total **140** (A) **235** (B)

Prevalence Index = B/A = **1.679**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Pewamo silty clay loam		NW1/WW1 Classification:		Wetland ID: Wetland 12						
Landform: Rise		Local Relief: Convex		Sample Point: SP 31						
Slope (%): 2	Latitude: 40.24315	Longitude: -82.506618	Datum: WGS 84	Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px; text-align: center;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Pewamo silty clay loam										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	4	1	10YR	3/5	100	--	--	--	--	silt loam
4	16	2	10YR	4/4	100	--	--	--	--	silt loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>										
Indicators for Problematic Soils ¹ <ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 										
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 12**

Sample Point: **SP 31**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rosa multiflora</i>	15	Y	FACU
2.	<i>Crataegus crus-galli</i>	5	Y	FAC
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **20**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Solidago canadensis</i>	45	Y	UPL
2.	<i>Lepidium virginicum</i>	40	Y	FACU
3.	<i>Carex frankii</i>	25	Y	OBL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **110**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **5** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **40%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	25	x 1 =	25
FACW spp.	0	x 2 =	0
FAC spp.	5	x 3 =	15
FACU spp.	55	x 4 =	220
UPL spp.	45	x 5 =	225

Total **130** (A) **485** (B)

Prevalence Index = B/A = **3.731**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Amanda silt loam		NWII/WWI Classification:		Wetland ID: Wetland 13						
Landform: Side slope		Local Relief: Concave		Sample Point: SP 32						
Slope (%): 2		Latitude: 40.24632	Longitude: -82.507019	Community ID: PEM						
		Datum: WGS 84		Section: N/A						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?										
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: <1 (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: Surface (in.)										
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: Surface (in.)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A						
Remarks:										
SOILS										
Map Unit Name: Amanda silt loam										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	2	1	10YR	4/2	100	--	--	--	--	silt loam
2	16	2	10YR	4/1	92	2.5YR	6/8	8	C	M
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹					
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)					
Restrictive Layer (If Observed) Type: Depth:					Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 13**

Sample Point: **SP 32**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Juncus effusus</i>	15	N	OBL
2.	<i>Carex lurida</i>	20	Y	OBL
3.	<i>Phalaris arundinacea</i>	20	Y	FACW
4.	<i>Setaria faberi</i>	20	Y	FACU
5.	<i>Lysimachia nummularia</i>	15	N	FACW
6.	<i>Onoclea sensibilis</i>	10	N	FACW
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	35	x 1 =	35
FACW spp.	45	x 2 =	90
FAC spp.	0	x 3 =	0
FACU spp.	20	x 4 =	80
UPL spp.	0	x 5 =	0

Total **100** (A) **205** (B)

Prevalence Index = B/A = **2.050**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/08/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar		State: Ohio						
Soil Unit: Amanda silt loam		NW1/WW1 Classification:		Wetland ID: Wetland 13						
Landform: Basin		Local Relief: Concave		Sample Point: SP 33						
Slope (%): 0		Latitude: 40.24643	Longitude: -82.507172	Community ID: UPL						
		Datum: WGS 84		Section: N/A						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?										
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		N/A								
Remarks:										
SOILS										
Map Unit Name: Amanda silt loam										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	1	10YR	4/3	100	--	--	--	--	silt loam
--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹					
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					
					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)					
Restrictive Layer (If Observed) Type: Depth:					Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 13**

Sample Point: **SP 33**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rosa multiflora</i>	10	Y	FACU
2.	<i>Rubus allegheniensis</i>	10	Y	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **20**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Solidago canadensis</i>	40	Y	UPL
2.	<i>Alliaria petiolata</i>	20	Y	FAC
3.	<i>Glechoma hederacea</i>	15	N	FACU
4.	<i>Phytolacca americana</i>	15	N	FACU
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **90**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	20	x 3 =	60
FACU spp.	50	x 4 =	200
UPL spp.	40	x 5 =	200

Total **110** (A) **460** (B)

Prevalence Index = B/A = **4.182**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20											
Applicant: American Electric Power (AEP)				County: Licking											
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio											
Soil Unit: Stonelick loam, occasionally flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 14											
Landform: Terrace		Local Relief: Concave		Sample Point: SP 34											
Slope (%): 0		Latitude: 40.25405	Longitude: -82.506862	Community ID: PEM											
		Datum: WGS 84		Section: N/A											
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?															
SUMMARY OF FINDINGS															
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Remarks:															
HYDROLOGY															
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):															
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>															
Field Observations:															
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No													
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)															
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A											
Remarks:															
SOILS															
Map Unit Name: Stonelick loam, occasionally flooded															
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)															
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)						
			Color (Moist)	%	Color (Moist)	%	Type	Location							
0	16	1	10YR	4/2	100	--	--	--	--	sandy loam					
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--	--	--	--	--	--	--	--	--	--	--					
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹										
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)					
					<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>										
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No										
Remarks: Sandy deposition soils fits definition of Problematic Soil #2 - Fluvial Sediments within Floodplains per Midwest Regional Supplement															

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 14**

Sample Point: **SP 34**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	<i>Platanus occidentalis</i>	5	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = 5

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = 0

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	70	Y	FACW
2.	<i>Verbena hastata</i>	10	N	FACW
3.	<i>Achillea millefolium</i>	5	N	FACU
4.	<i>Solidago gigantea</i>	5	N	FACW
5.	<i>Alliaria petiolata</i>	3	N	FAC
6.	<i>Verbesina alternifolia</i>	2	N	FACW
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = 95

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = 0

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	<u>0</u>	x 1 =	<u>0</u>
FACW spp.	<u>92</u>	x 2 =	<u>184</u>
FAC spp.	<u>3</u>	x 3 =	<u>9</u>
FACU spp.	<u>5</u>	x 4 =	<u>20</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>

Total 100 (A) 213 (B)

Prevalence Index = B/A = 2.130

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio						
Soil Unit: Fox gravelly loam, 18-25% slopes, eroded		NW1/WW1 Classification: none		Wetland ID: Wetland 14						
Landform: Side slope		Local Relief: Linear		Sample Point: SP 35						
Slope (%): 2		Latitude: 40.25431	Longitude: -82.506875	Community ID: UPL						
		Datum: WGS 84		Section: N/A						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?										
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 45%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 50%; background-color: #f0f0f0; padding: 5px; text-align: center;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Fox gravelly loam, 18-25% slopes, eroded										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	3	1	10YR	3/4	100	--	--	--	--	sandy loam
3	16	2	10YR	3/3	100	--	--	--	--	sandy loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 65%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>										
Indicators for Problematic Soils ¹										
<ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 										
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 14**

Sample Point: **SP 35**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Acer negundo</i>	5	Y	FAC
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **5**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Verbesina alternifolia</i>	40	Y	FACW
2.	<i>Achillea millefolium</i>	10	N	FACU
3.	<i>Alliaria petiolata</i>	5	N	FAC
4.	<i>Solidago canadensis</i>	15	Y	FACU
5.	<i>Schedonorus arundinaceus</i>	10	N	FACU
6.	<i>Dipsacus fullonum</i>	10	N	FACU
7.	<i>Plantago major</i>	10	N	FAC
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **67%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	40	x 2 =	80
FAC spp.	20	x 3 =	60
FACU spp.	45	x 4 =	180
UPL spp.	0	x 5 =	0

Total **105** (A) **320** (B)

Prevalence Index = B/A = **3.048**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20							
Applicant: American Electric Power (AEP)				County: Licking							
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio							
Soil Unit: Centerburg silt loam, 2-6% slopes		NW1/WW1 Classification: none		Wetland ID: Wetland 15							
Landform: Plain		Local Relief: Concave		Sample Point: SP 36							
Slope (%): 0		Latitude: 40.264262	Longitude: -82.506059	Community ID: PSS							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Centerburg silt loam, 2-6% slopes											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	2	1	10YR	3/1	100	--	--	--	--	silt loam	
2	12	2	10YR	4/1	80	10YR	5/6	20	C	M	clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹ <ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 15**

Sample Point: **SP 36**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Salix nigra</i>	20	Y	OBL
2.	<i>Cornus amomum</i>	40	Y	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **60**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Juncus effusus</i>	15	N	OBL
2.	<i>Scirpus cyperinus</i>	30	Y	OBL
3.	<i>Epilobium coloratum</i>	10	N	OBL
4.	<i>Solidago gigantea</i>	15	N	FACW
5.	<i>Leersia oryzoides</i>	30	Y	OBL
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	105	x 1 =	105
FACW spp.	55	x 2 =	110
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **160** (A) **215** (B)

Prevalence Index = B/A = **1.344**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio						
Soil Unit: Centerburg silt loam, 2-6% slopes		NW1/WW1 Classification: none		Wetland ID: Wetland 15						
Landform: Terrace		Local Relief: Linear		Sample Point: SP 37						
Slope (%): 0		Latitude: 40.26421		Longitude: -82.505924						
		Datum: WGS 84		Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Section: N/A							
			Township: N/A							
			Range: N/A Dir: N/A							
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Centerburg silt loam, 2-6% slopes										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	1	10YR	5/3	100	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):			Indicators for Problematic Soils ¹							
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat			<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions							
			<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)							
Restrictive Layer (If Observed) Type: Depth:			Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks: recently plowed										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 15**

Sample Point: **SP 37**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	Rubus allegheniensis	15	Y	FACU
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **15**

Herb Stratum (Plot size: 5 ft radius)

1.	Setaria faberi	15	Y	FACU
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **15**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	30	x 4 =	120
UPL spp.	0	x 5 =	0

Total **30** (A) **120** (B)

Prevalence Index = B/A = **4.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Lobdell silt loam, 0-3% slopes, occasionally flooded		NW1/WW1 Classification:		Wetland ID: Wetland 16							
Landform: Terrace		Local Relief: Concave		Sample Point: SP 38							
Slope (%): 1		Latitude: 40.27279		Longitude: -82.505177							
		Datum: WGS 84		Community ID: PEM							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
Section: N/A											
Township: N/A											
Range: N/A Dir: N/A											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 5" (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Lobdell silt loam, 0-3% slopes, occasionally flooded											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	4/2	95	7.5YR	4/6	5	C	PL	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>											
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;"> Restrictive Layer (If Observed) Type: Depth: </div> <div style="width: 30%; text-align: right;"> Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Remarks:											

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 16**

Sample Point: **SP 38**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Aesculus glabra</i>	5	Y	FAC
2.	<i>Rubus allegheniensis</i>	5	Y	FACU
3.	<i>Salix nigra</i>	15	Y	OBL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **25**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	80	Y	FACW
2.	<i>Verbesina alternifolia</i>	15	N	FACW
3.	<i>Ambrosia trifida</i>	2	N	FAC
4.	<i>Conium maculatum</i>	5	N	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **102**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **75%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	<u>15</u>	x 1 =	<u>15</u>
FACW spp.	<u>100</u>	x 2 =	<u>200</u>
FAC spp.	<u>7</u>	x 3 =	<u>21</u>
FACU spp.	<u>5</u>	x 4 =	<u>20</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>

Total **127** (A) **256** (B)

Prevalence Index = B/A = **2.016**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Lobdell silt loam, 0-3% slopes, occasionally flooded		NW1/WW1 Classification:		Wetland ID: Wetland 16							
Landform: Rise		Local Relief: Linear		Sample Point: SP 39							
Slope (%): 1		Latitude: 40.27288 Longitude: -82.505121		Community ID: UPL							
Datum: WGS 84				Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No											
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Township: N/A								
			Range: N/A Dir: N/A								
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
Primary:			Secondary:								
<input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface			<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)								
<input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test											
Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Lobdell silt loam, 0-3% slopes, occasionally flooded											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	4/4	100	--	--	--	--	silty clay loam	
--	--	--	--	--	--	--	--	--	--	--	
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat						<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					
Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)											
Restrictive Layer (If Observed) Type: Depth:						Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No					
Remarks:											

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 16**

Sample Point: **SP 39**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	<i>Aesculus glabra</i>	5	Y	FAC
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = 5

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus occidentalis</i>	20	Y	UPL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = 20

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Setaria faberi</i>	30	Y	FACU
2.	<i>Monarda fistulosa</i>	20	Y	FACU
3.	<i>Dichanthelium clandestinum</i>	15	N	FACW
4.	<i>Verbesina alternifolia</i>	10	N	FACW
5.	<i>Symphotrichum ericoides</i>	10	N	FACU
6.	<i>Solidago canadensis</i>	5	N	FACU
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = 90

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = 0

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25% (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	<u>0</u>	x 1 =	<u>0</u>
FACW spp.	<u>25</u>	x 2 =	<u>50</u>
FAC spp.	<u>5</u>	x 3 =	<u>15</u>
FACU spp.	<u>65</u>	x 4 =	<u>260</u>
UPL spp.	<u>20</u>	x 5 =	<u>100</u>

Total 115 (A) 425 (B)

Prevalence Index = B/A = 3.696

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Pewamo silty clay loam, low carbonate till, 0-2% slopes		NW1/WW1 Classification: PSS1C		Wetland ID: Wetland 17							
Landform: Depression		Local Relief: Concave		Sample Point: SP 40							
Slope (%): 1		Latitude: 40.27592	Longitude: -82.504872	Community ID: PSS							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0-1" (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Pewamo silty clay loam, low carbonate till, 0-2% slopes											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	3/1	85	7.5YR	4/4	15	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹											
<ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 17**

Sample Point: **SP 40**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	<i>Acer saccharinum</i>	10	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **10**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Cephalanthus occidentalis</i>	30	Y	OBL
2.	<i>Rosa palustris</i>	10	Y	OBL
3.	<i>Fraxinus pennsylvanica</i>	10	Y	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **50**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Scirpus cyperinus</i>	20	Y	OBL
2.	<i>Phalaris arundinacea</i>	15	Y	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **35**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **6** (A)

Total Number of Dominant Species Across All Strata: **6** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	60	x 1 =	60
FACW spp.	35	x 2 =	70
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **95** (A) **130** (B)

Prevalence Index = B/A = **1.368**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20						
Applicant: American Electric Power (AEP)				County: Knox						
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio						
Soil Unit: Pewamo silty clay loam, low carbonate till, 0-2% slopes		NW1/WW1 Classification:		Wetland ID: Wetland 17						
Landform: Rise		Local Relief: Linear		Sample Point: SP 41						
Slope (%): 1		Latitude: 40.27565	Longitude: -82.504814	Community ID: UPL						
Datum: WGS 84										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)				<input type="checkbox"/> Yes <input type="checkbox"/> No						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present?		Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Wetland Hydrology Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Pewamo silty clay loam, low carbonate till, 0-2% slopes										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	4/3	100	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--
<div style="display: flex; justify-content: space-between;"> <div style="width: 60%;"> NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 35%;"> Indicators for Problematic Soils ¹ <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>										
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Restrictive Layer (If Observed) Type: Depth: </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Remarks:										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 17**

Sample Point: **SP 41**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus allegheniensis</i>	5	Y	FACU
2.	<i>Cornus amomum</i>	10	Y	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **15**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Setaria faberi</i>	20	Y	FACU
2.	<i>Panicum capillare</i>	5	N	FAC
3.	<i>Zea mays</i>	60	Y	UPL
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **85**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks: **Harvested ag (corn) field**

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **25%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	10	x 2 =	20
FAC spp.	5	x 3 =	15
FACU spp.	25	x 4 =	100
UPL spp.	60	x 5 =	300

Total **100** (A) **435** (B)

Prevalence Index = B/A = **4.350**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Pewamo silty clay loam, low carbonate till, 0-2% slopes		NW1/WW1 Classification: PUBGx		Wetland ID: Wetland 18							
Landform: Depression		Local Relief: Concave		Sample Point: SP 42							
Slope (%): 1		Latitude: 40.28277	Longitude: -82.504428	Community ID: PEM							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 5" (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Pewamo silty clay loam, low carbonate till, 0-2% slopes											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	4/1	90	5YR	4/6	10	C	PL	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)											
<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>											
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 18**

Sample Point: **SP 42**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Leersia oryzoides</i>	20	Y	OBL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **20**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	20	x 1 =	20
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **20** (A) **20** (B)

Prevalence Index = B/A = **1.000**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
- ☐ Yes ☐ No Dominance Test is > 50%
- ☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
- ☐ Yes ☐ No Morphological Adaptations (Explain) *
- ☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20						
Applicant: American Electric Power (AEP)				County: Knox						
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio						
Soil Unit: Pewamo silty clay loam, low carbonate till, 0-2% slopes		NW1/WW1 Classification:		Wetland ID: Wetland 18						
Landform: Rise		Local Relief: Linear		Sample Point: SP 43						
Slope (%): 1		Latitude: 40.28284	Longitude: -82.504405	Community ID: UPL						
		Datum: WGS 84		Section: N/A						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?										
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<u>Primary:</u>		<u>Secondary:</u>								
<input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface		<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)								
<input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A						
Remarks:										
SOILS										
Map Unit Name: Pewamo silty clay loam, low carbonate till, 0-2% slopes										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	3/2	100	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):			Indicators for Problematic Soils ¹							
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat			<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions			<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)				
						¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
Restrictive Layer (If Observed)		Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 18**

Sample Point: **SP 43**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus allegheniensis</i>	3	N	FACU
2.	<i>Rosa multiflora</i>	5	Y	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **8**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Solidago canadensis</i>	80	Y	FACU
2.	<i>Dactylis glomerata</i>	25	N	FACU
3.	<i>Symphyotrichum ericoides</i>	2	N	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **107**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	115	x 4 =	460
UPL spp.	0	x 5 =	0

Total **115** (A) **460** (B)

Prevalence Index = B/A = **4.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20										
Applicant: American Electric Power (AEP)				County: Licking										
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio										
Soil Unit: Shoals silt loam, 0-2% slopes, occasionally flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 19										
Landform: Plain		Local Relief: Concave		Sample Point: SP 44										
Slope (%): 1		Latitude: 40.313027	Longitude: -82.501419	Community ID: PEM										
		Datum: WGS 84		Section: N/A										
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?														
SUMMARY OF FINDINGS														
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Remarks:														
HYDROLOGY														
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):														
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>														
Field Observations:														
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 8 (in.)		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No												
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.)														
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.)														
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A										
Remarks:														
SOILS														
Map Unit Name: Shoals silt loam, 0-2% slopes, occasionally flooded														
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)														
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)					
			Color (Moist)	%	Color (Moist)	%	Type	Location						
0	6	1	10YR	4/1	85	10YR	5/6	15	C	M	clay loam			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
--	--	--	--	--	--	--	--	--	--	--	--			
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):					Indicators for Problematic Soils ¹									
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat					<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions					<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)				
					<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>									
Restrictive Layer (If Observed)		Type: rock	Depth: 6"		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:														

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 19**

Sample Point: **SP 44**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	90	Y	FACW
2.	<i>Cyperus esculentus</i>	5	N	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **95**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	95	x 2 =	190
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **95** (A) **190** (B)

Prevalence Index = B/A = **2.000**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/02/20						
Applicant: American Electric Power (AEP)				County: Licking						
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio						
Soil Unit: Shoals silt loam, 0-2% slopes, occasionally flooded		NW1/WW1 Classification: none		Wetland ID: Wetland 19						
Landform: Terrace		Local Relief: Linear		Sample Point: SP 45						
Slope (%): 0		Latitude: 40.313027		Longitude: -82.501453						
		Datum: WGS 84		Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Section: N/A							
			Township: N/A							
			Range: N/A Dir: N/A							
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Shoals silt loam, 0-2% slopes, occasionally flooded										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	10	1	10YR	4/2	60	--	--	--	--	sand
--	--	1	10YR	5/6	40	--	--	--	--	sand
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>										
<div style="display: flex; justify-content: space-between; margin-top: 5px;"> <div style="width: 40%;"> Restrictive Layer (If Observed) Type: fill Depth: 10" </div> <div style="width: 50%; text-align: center;"> Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>										
Remarks: sandy gravel										

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 19**

Sample Point: **SP 45**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Setaria faberi</i>	25	Y	FACU
2.	<i>Trifolium pratense</i>	10	N	FACU
3.	<i>Glycine max</i>	5	N	UPL
4.	<i>Schedonorus arundinaceus</i>	50	Y	FACU
5.	<i>Dipsacus fullonum</i>	10	N	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	95	x 4 =	380
UPL spp.	5	x 5 =	25

Total **100** (A) **405** (B)

Prevalence Index = B/A = **4.050**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Kate Bomar		Investigator #2: Matt Denzler		State: Ohio							
Soil Unit: Bennington silt loam, 2-6% slopes		NW1/WW1 Classification: none		Wetland ID: Wetland 20							
Landform: Depression		Local Relief: Concave		Sample Point: SP 46							
Slope (%): 0		Latitude: 40.31908	Longitude: -82.319075	Community ID: PEM							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 1 (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Bennington silt loam, 2-6% slopes											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	1	10YR	5/1	90	10YR	5/6	10	C	M	clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)											
<small>¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</small>											
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 20**

Sample Point: **SP 46**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	Salix nigra	5	Y	OBL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **5**

Herb Stratum (Plot size: 5 ft radius)

1.	Phalaris arundinacea	55	Y	FACW
2.	Panicum virgatum	20	Y	FAC
3.	Alliaria petiolata	5	N	UPL
4.	Cyperus esculentus	15	N	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **95**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **3** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	5	x 1 =	5
FACW spp.	70	x 2 =	140
FAC spp.	20	x 3 =	60
FACU spp.	0	x 4 =	0
UPL spp.	5	x 5 =	25

Total **100** (A) **230** (B)

Prevalence Index = B/A = **2.300**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20						
Applicant: American Electric Power (AEP)				County: Knox						
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio						
Soil Unit: Bennington silt loam, 2-6% slopes		NW1/WW1 Classification:		Wetland ID: Wetland 20						
Landform: Rise		Local Relief: Linear		Sample Point: SP 47						
Slope (%): 1		Latitude: 40.31901		Longitude: -82.500531						
		Datum: WGS 84		Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No										
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Section: N/A							
			Township: N/A							
			Range: N/A Dir: N/A							
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No			Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>										
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)			Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.)										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A										
Remarks:										
SOILS										
Map Unit Name: Bennington silt loam, 2-6% slopes										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	4/3	100	--	--	--	--	silty clay loam
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>										
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive Layer (If Observed) Type: Depth:			Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 20**

Sample Point: **SP 47**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Schedonorus arundinaceus</i>	55	N	FACU
2.	<i>Cyperus esculentus</i>	5	N	FACW
3.	<i>Alliaria petiolata</i>	5	N	FAC
4.	<i>Lolium perenne</i>	15	N	FACU
5.	<i>Phleum pratense</i>	20	Y	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	5	x 2 =	10
FAC spp.	5	x 3 =	15
FACU spp.	90	x 4 =	360
UPL spp.	0	x 5 =	0

Total **100** (A) **385** (B)

Prevalence Index = B/A = **3.850**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Sebring silt loam		NW1/WW1 Classification:		Wetland ID: Wetland 21							
Landform: Depression		Local Relief: Concave		Sample Point: SP 48							
Slope (%): 1		Latitude: 40.32154	Longitude: -82.499933	Community ID: PEM							
		Datum: WGS 84		Section: N/A							
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Township: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Range: N/A Dir: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?											
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <u>Primary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 48%;"> <u>Secondary:</u> <ul style="list-style-type: none"> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: 2" (in.) Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No Depth: surface (in.) </div> <div style="width: 48%; background-color: #f0f0f0; padding: 5px;"> Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No </div> </div>											
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: N/A											
Remarks:											
SOILS											
Map Unit Name: Sebring silt loam											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	5/2	88	10YR	4/6	12	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
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NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 48%;"> <ul style="list-style-type: none"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>											
Indicators for Problematic Soils ¹											
<ul style="list-style-type: none"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) 											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)		Type:	Depth:		Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No						
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 21**

Sample Point: **SP 48**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Carex vulpinoidea</i>	60	Y	FACW
2.	<i>Schedonorus arundinaceus</i>	10	N	FACU
3.	<i>Juncus effusus</i>	15	N	OBL
4.	<i>Cyperus esculentus</i>	5	N	FACW
5.	<i>Phleum pratense</i>	10	N	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	15	x 1 =	15
FACW spp.	65	x 2 =	130
FAC spp.	0	x 3 =	0
FACU spp.	20	x 4 =	80
UPL spp.	0	x 5 =	0

Total **100** (A) **225** (B)

Prevalence Index = B/A = **2.250**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nate Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Sebring silt loam		NW1/WW1 Classification: none		Wetland ID: Wetland 21							
Landform: Side slope		Local Relief: Linear		Sample Point: SP 49							
Slope (%): 0		Latitude: 40.32139	Longitude: -82.500027	Community ID: UPL							
Datum: WGS 84											
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)				<input type="checkbox"/> Yes <input type="checkbox"/> No							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present?		Section: N/A							
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A							
				Range: N/A Dir: N/A							
SUMMARY OF FINDINGS											
Hydrophytic Vegetation Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Wetland Hydrology Present?		<input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:											
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface </div> <div style="width: 30%;"> <input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks) </div> <div style="width: 30%;"> <u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test </div> </div>											
Field Observations:											
Surface Water Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth:	(in.)								
Water Table Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth:	(in.)								
Saturation Present?	<input type="checkbox"/> Yes <input type="checkbox"/> No	Depth:	(in.)								
		Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A							
Remarks:											
SOILS											
Map Unit Name: Sebring silt loam											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	6	1	10YR	4/2	90	10YR	5/6	10	C	M	silty clay loam
6	16	2	10YR	4/2	100	--	--	--	--	--	silty clay loam
--	--	2	10YR	3/1	40	--	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):											
<div style="display: flex; justify-content: space-between;"> <div style="width: 30%;"> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div style="width: 30%;"> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> <div style="width: 30%;"> <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) </div> </div>											
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.											
Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:											

Project/Site: **North Newark- Sharp Road 138 kV Line Rebuild Project**

Wetland ID: **Wetland 21**

Sample Point: **SP 49**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rubus occidentalis</i>	10	Y	UPL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **10**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Prunella vulgaris</i>	5	N	FAC
2.	<i>Schedonorus arundinaceus</i>	45	Y	FACU
3.	<i>Solidago canadensis</i>	10	N	UPL
4.	<i>Cyperus esculentus</i>	25	Y	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **85**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **33%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	25	x 2 =	50
FAC spp.	5	x 3 =	15
FACU spp.	45	x 4 =	180
UPL spp.	20	x 5 =	100

Total **95** (A) **345** (B)

Prevalence Index = B/A = **3.632**

Hydrophytic Vegetation Indicators:

- ☐ Yes ☐ No Rapid Test for Hydrophytic Vegetation
☐ Yes ☐ No Dominance Test is > 50%
☐ Yes ☐ No Prevalence Index is ≤ 3.0 *
☐ Yes ☐ No Morphological Adaptations (Explain) *
☐ Yes ☐ No Problem Hydrophytic Vegetation (Explain) *

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North North - Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20							
Applicant: American Electric Power (AEP)				County: Knox							
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio							
Soil Unit: Condit silt loam, 0-1% slopes		NWI/WWI Classification:		Wetland ID: Wetland 22							
Landform: Depression		Local Relief: Concave		Sample Point: SP 50							
Slope (%): 1		Latitude: 40.33547		Longitude: -82.498724							
		Datum: WGS 84		Community ID: PEM							
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks)				Yes No							
Are Vegetation, Soil, or Hydrology significantly disturbed?		Are normal circumstances present?		Yes No							
Are Vegetation, Soil, or Hydrology naturally problematic?				Yes No							
SUMMARY OF FINDINGS				Section: N/A							
Hydrophytic Vegetation Present?		Yes No		Hydric Soils Present?							
Wetland Hydrology Present?		Yes No		Is This Sampling Point Within A Wetland?							
Remarks:				Yes No							
HYDROLOGY											
Wetland Hydrology Indicators (Check here if indicators are not present):											
Primary:			Secondary:								
A1 - Surface Water			B6 - Surface Soil Cracks								
A2 - High Water Table			B10 - Drainage Patterns								
A3 - Saturation			C2 - Dry-Season Water Table								
B1 - Water Marks			C8 - Crayfish Burrows								
B2 - Sediment Deposits			C9 - Saturation Visible on Aerial Imagery								
B3 - Drift Deposits			D1 - Stunted or Stressed Plants								
B4 - Algal Mat or Crust			D2 - Geomorphic Position								
B5 - Iron Deposits			D5 - FAC-Neutral Test								
B7 - Inundation Visible on Aerial Imagery											
B8 - Sparsely Vegetated Concave Surface											
Field Observations:											
Surface Water Present?			Depth: (in.)								
Water Table Present?			Depth: 3" (in.)								
Saturation Present?			Depth: surface (in.)								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			N/A								
Remarks:											
SOILS											
Map Unit Name: Condit silt loam, 0-1% slopes											
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)											
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	16	--	10YR	4/1	95	10YR	4/4	5	C	M	silty clay loam
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present):											
A1 - Histosol						S4 - Sandy Gleyed Matrix					
A2 - Histic Epipedon						S5 - Sandy Redox					
A3 - Black Histic						S6 - Stripped Matrix					
A4 - Hydrogen Sulfide						F1 - Loamy Muck Mineral					
A5 - Stratified Layers						F2 - Loamy Gleyed Matrix					
A10 - 2 cm Muck						F3 - Depleted Matrix					
A11 - Depleted Below Dark Surface						F6 - Redox Dark Surface					
A12 - Thick Dark Surface						F7 - Depleted Dark Surface					
S1 - Sandy Muck Mineral						F8 - Redox Depressions					
S3 - 5 cm Mucky Peat or Peat											
Indicators for Problematic Soils 1						A16 - Coast Prairie Redox					
						S7 - Dark Surface					
						F12 - Iron-Manganese Masses					
						TF12 - Very Shallow Dark Surface					
						Other (Explain in Remarks)					
Restrictive Layer (If Observed)						Type:					
Depth:						Hydric Soil Present?					
Remarks:						Yes No					

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 22**

Sample Point: **SP 50**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Cornus amomum</i>	10	Y	FACW
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **10**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Carex vulpinoidea</i>	35	Y	FACW
2.	<i>Symphyotrichum lateriflorum</i>	15	N	FACW
3.	<i>Carex cristatella</i>	20	N	FACW
4.	<i>Panicum virgatum</i>	10	N	FAC
5.	<i>Scirpus cyperinus</i>	2	N	OBL
6.	<i>Vernonia gigantea</i>	5	N	FAC
7.	<i>Persicaria hydropiperoides</i>	10	N	OBL
8.	<i>Eupatorium perfoliatum</i>	5	N	OBL
9.	<i>Cirsium arvense</i>	3	N	FACU
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **105**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	17	x 1 =	17
FACW spp.	80	x 2 =	160
FAC spp.	15	x 3 =	45
FACU spp.	3	x 4 =	12
UPL spp.	0	x 5 =	0

Total **115** (A) **234** (B)

Prevalence Index = B/A = **2.035**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328		Date: 01/03/20						
Applicant: American Electric Power (AEP)				County: Knox						
Investigator #1: Nathan Noland		Investigator #2: Rohini Vembar		State: Ohio						
Soil Unit: Amanda silt loam, 12-18% slopes, eroded		NW1/WW1 Classification:		Wetland ID: Wetland 22						
Landform: Rise		Local Relief: Linear		Sample Point: SP 51						
Slope (%): 1		Latitude: 40.33508		Longitude: -82.498671						
		Datum: WGS 84		Community ID: UPL						
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks) <input type="checkbox"/> Yes <input type="checkbox"/> No				Section: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Township: N/A						
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?				Range: N/A Dir: N/A						
SUMMARY OF FINDINGS										
Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Hydric Soils Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No		Is This Sampling Point Within A Wetland? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Remarks:										
HYDROLOGY										
Wetland Hydrology Indicators (Check here if indicators are not present <input type="checkbox"/>):										
Primary:			Secondary:							
<input type="checkbox"/> A1 - Surface Water	<input type="checkbox"/> B9 - Water-Stained Leaves	<input type="checkbox"/> B6 - Surface Soil Cracks								
<input type="checkbox"/> A2 - High Water Table	<input type="checkbox"/> B13 - Aquatic Fauna	<input type="checkbox"/> B10 - Drainage Patterns								
<input type="checkbox"/> A3 - Saturation	<input type="checkbox"/> B14 - True Aquatic Plants	<input type="checkbox"/> C2 - Dry-Season Water Table								
<input type="checkbox"/> B1 - Water Marks	<input type="checkbox"/> C1 - Hydrogen Sulfide Odor	<input type="checkbox"/> C8 - Crayfish Burrows								
<input type="checkbox"/> B2 - Sediment Deposits	<input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots	<input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery								
<input type="checkbox"/> B3 - Drift Deposits	<input type="checkbox"/> C4 - Presence of Reduced Iron	<input type="checkbox"/> D1 - Stunted or Stressed Plants								
<input type="checkbox"/> B4 - Algal Mat or Crust	<input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils	<input type="checkbox"/> D2 - Geomorphic Position								
<input type="checkbox"/> B5 - Iron Deposits	<input type="checkbox"/> C7 - Thin Muck Surface	<input type="checkbox"/> D5 - FAC-Neutral Test								
<input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery	<input type="checkbox"/> D9 - Gauge or Well Data									
<input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> Other (Explain in Remarks)									
Field Observations:										
Surface Water Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No								
Water Table Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Saturation Present? <input type="checkbox"/> Yes <input type="checkbox"/> No	Depth: (in.)									
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				N/A						
Remarks:										
SOILS										
Map Unit Name: Amanda silt loam, 12-18% slopes, eroded										
Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)										
Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	3/2	100	--	--	--	--	silty clay loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):			Indicators for Problematic Soils ¹							
<input type="checkbox"/> A1- Histosol	<input type="checkbox"/> S4 - Sandy Gleyed Matrix	<input type="checkbox"/> A16 - Coast Prairie Redox								
<input type="checkbox"/> A2 - Histic Epipedon	<input type="checkbox"/> S5 - Sandy Redox	<input type="checkbox"/> S7 - Dark Surface								
<input type="checkbox"/> A3 - Black Histic	<input type="checkbox"/> S6 - Stripped Matrix	<input type="checkbox"/> F12 - Iron-Manganese Masses								
<input type="checkbox"/> A4 - Hydrogen Sulfide	<input type="checkbox"/> F1 - Loamy Muck Mineral	<input type="checkbox"/> TF12 - Very Shallow Dark Surface								
<input type="checkbox"/> A5 - Stratified Layers	<input type="checkbox"/> F2 - Loamy Gleyed Matrix	<input type="checkbox"/> Other (Explain in Remarks)								
<input type="checkbox"/> A10 - 2 cm Muck	<input type="checkbox"/> F3 - Depleted Matrix									
<input type="checkbox"/> A11 - Depleted Below Dark Surface	<input type="checkbox"/> F6 - Redox Dark Surface									
<input type="checkbox"/> A12 - Thick Dark Surface	<input type="checkbox"/> F7 - Depleted Dark Surface									
<input type="checkbox"/> S1 - Sandy Muck Mineral	<input type="checkbox"/> F8 - Redox Depressions									
<input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat										
¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.										
Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No							
Remarks:										

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 22**

Sample Point: **SP 51**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Schedonorus arundinaceus</i>	75	Y	FACU
2.	<i>Poa pratensis</i>	20	N	FAC
3.	<i>Digitaria sanguinalis</i>	5	N	FACU
4.	<i>Trifolium repens</i>	3	N	FACU
5.	<i>Plantago lanceolata</i>	2	N	FACU
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **105**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	20	x 3 =	60
FACU spp.	85	x 4 =	340
UPL spp.	0	x 5 =	0

Total **105** (A) **400** (B)

Prevalence Index = B/A = **3.810**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|-----------------------------|--|
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 23
Landform: Depression	Local Relief: Concave		Sample Point: SP 52
Slope (%): 1	Latitude: 40.137665	Longitude: -82.462300	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: PEM
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input checked="" type="checkbox"/> A2 - High Water Table <input checked="" type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input checked="" type="checkbox"/> D2 - Geomorphic Position <input checked="" type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 1 (in.) Water Table Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 4 (in.) Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix			Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%		Color (Moist)	%	Type	Location		
0	12	--	10YR	4/2	96	10YR	6/8	4	C	PL	silty clay
12	16	--	10YR	4/2	92	10YR	6/8	8	C	PL	sandy clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 23**

Sample Point: **SP 52**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Typha angustifolia</i>	75	Y	OBL
2.	<i>Persicaria pensylvanica</i>	20	N	FACW
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **95**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	75	x 1 =	75
FACW spp.	20	x 2 =	40
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **95** (A) **115** (B)

Prevalence Index = B/A = **1.211**

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 23
Landform: Rise	Local Relief: Convex		Sample Point: SP 53
Slope (%): 1	Latitude: 40.137676	Longitude: -82.462382	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: UPL
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	4/4	100	--	--	--	--	silty clay
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 23** Sample Point: **SP 53**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Glechoma hederacea</i>	15	N	FACU
2.	<i>Conium maculatum</i>	15	N	FACW
3.	<i>Schedonorus arundinaceus</i>	30	Y	FACU
4.	<i>Elymus canadensis</i>	20	Y	FACU
5.	<i>Daucus carota</i>	5	N	UPL
6.	<i>Achillea millefolium</i>	5	N	FACU
7.	<i>Dipsacus fullonum</i>	5	N	FACU
8.	<i>Solidago canadensis</i>	5	N	FACU
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	15	x 2 =	30
FAC spp.	0	x 3 =	0
FACU spp.	80	x 4 =	320
UPL spp.	5	x 5 =	25

Total **100** (A) **375** (B)

Prevalence Index = B/A = **3.750**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☒ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 24
Landform: Rise	Local Relief: Convex		Sample Point: SP 54
Slope (%): 1	Latitude: 40.134869	Longitude: -82.461377	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: PEM
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input checked="" type="checkbox"/> D2 - Geomorphic Position <input checked="" type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 1.5 (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix			Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)		%	Color (Moist)	%	Type	Location		
0	10	1	10YR	4/2	90	10YR	6/8	10	C	M	silty clay
10	16	2	10YR	4/1	90	10YR	6/8	10	C	M	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <div style="display: flex; justify-content: space-between;"> <div> <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat </div> <div> <input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions </div> </div>	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 24** Sample Point: **SP 54**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)				
	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Herb Stratum (Plot size: 5 ft radius)				
1.	<i>Iris versicolor</i>	80	Y	OBL
2.	<i>Conium maculatum</i>	10	N	FACU
3.	<i>Symphyotrichum ericoides</i>	10	N	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
Total Cover =		100		

Woody Vine Stratum (Plot size: 30 ft radius)				
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
Total Cover =		0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	<u>80</u>	x 1 =	<u>80</u>
FACW spp.	<u>0</u>	x 2 =	<u>0</u>
FAC spp.	<u>0</u>	x 3 =	<u>0</u>
FACU spp.	<u>20</u>	x 4 =	<u>80</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>
Total		<u>100</u> (A)	<u>160</u> (B)
Prevalence Index = B/A =			<u>1.600</u>

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 24
Landform: Rise	Local Relief: Convex		Sample Point: SP 55
Slope (%): 1	Latitude: 40.134862	Longitude: -82.461999	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: UPL
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	4/4	90	--	--	--	--	silty clay
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project**

Wetland ID: **Wetland 24**

Sample Point: **SP 55**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Elymus canadensis</i>	60	Y	FACU
2.	<i>Solidago canadensis</i>	30	Y	FACU
3.	<i>Rosa multiflora</i>	5	N	FACU
4.	<i>Apocynum cannabinum</i>	5	N	FAC
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	5	x 3 =	15
FACU spp.	95	x 4 =	380
UPL spp.	0	x 5 =	0

Total **100** (A) **395** (B)

Prevalence Index = B/A = **3.950**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☒ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 25
Landform: Depression	Local Relief: Concave		Sample Point: SP 56
Slope (%): 1	Latitude: 40.128422	Longitude: -82.456315	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: PEM
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input checked="" type="checkbox"/> A2 - High Water Table <input checked="" type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input checked="" type="checkbox"/> D2 - Geomorphic Position <input checked="" type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 2 (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix			Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%		Color (Moist)	%	Type	Location		
0	2	--	10YR	2/1	100	--	--	--	--	--	silty clay
2	12	--	10YR	4/2	90	10YR	6/8	10	C	M	silty clay
12	16	--	10YR	4/1	90	10YR	6/8	10	C	M	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 25** Sample Point: **SP 56**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Juncus effusus</i>	60	Y	OBL
2.	<i>Acorus calamus</i>	30	Y	OBL
3.	<i>Lysimachia nummularia</i>	5	N	FACW
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **95**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	90	x 1 =	90
FACW spp.	5	x 2 =	10
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **95** (A) **100** (B)

Prevalence Index = B/A = **1.053**

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded	NW1/WW1 Classification: None		Wetland ID: Wetland 25
Landform: Rise	Local Relief: Convex		Sample Point: SP 57
Slope (%): 1	Latitude: 40.12839	Longitude: -82.456309	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: UPL
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Sh: Shoals silt loam, 0 to 2 percent slopes, occasionally flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Type	Location	Texture (e.g. clay, sand, loam)
			Color (Moist)	%	Color (Moist)	%					
0	1	--	10YR	4/2	100	--	--	--	--	--	silty clay
1	16	--	10YR	4/2	90	10YR	6/8	10	C	M	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>):		Indicators for Problematic Soils ¹
<input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	<input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 25** Sample Point: **SP 57**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Elymus canadensis</i>	45	Y	FACU
2.	<i>Conyza canadensis</i>	10	N	UPL
3.	<i>Schedonorus arundinaceus</i>	45	Y	FACU
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	90	x 4 =	360
UPL spp.	10	x 5 =	50

Total **100** (A) **410** (B)

Prevalence Index = B/A = **4.100**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☒ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: FcA: Fitchville silt loam, 0 to 2 percent slopes	NW1/WW1 Classification: None		Wetland ID: Wetland 26
Landform: Depression	Local Relief: Concave		Sample Point: SP 58
Slope (%): 1	Latitude: 40.124553	Longitude: -82.453654	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: PEM
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?			Section: QSW
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?			Township: T3N
Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Range: R12W Dir: N/A

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input checked="" type="checkbox"/> A2 - High Water Table <input checked="" type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input checked="" type="checkbox"/> D2 - Geomorphic Position <input checked="" type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 2 (in.) Water Table Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.) Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **FcA: Fitchville silt loam, 0 to 2 percent slopes**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)		
			Color (Moist)	%	Color (Moist)	%	Type	Location			
0	3	--	10YR	2/1	100	--	--	--	--	silty clay	
3	10	--	10YR	2/1	90	10YR	6/8	10	C	M	silty clay
10	16	--	10YR	4/1	90	10YR	6/8	10	C	M	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 26** Sample Point: **SP 58**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rosa palustris</i>	10	Y	OBL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **10**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Typha latifolia</i>	25	Y	OBL
2.	<i>Carex frankii</i>	10	N	UPL
3.	<i>Symplocarpus foetidus</i>	25	Y	OBL
4.	<i>Epilobium coloratum</i>	10	N	OBL
5.	<i>Persicaria pensylvanica</i>	25	Y	FACW
6.	<i>Eupatorium perfoliatum</i>	10	N	OBL
7.	<i>Mimulus ringens</i>	5	N	OBL
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **110**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	85	x 1 =	85
FACW spp.	25	x 2 =	50
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	10	x 5 =	50

Total **120** (A) **185** (B)

Prevalence Index = B/A = **1.542**

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: FcA: Fitchville silt loam, 0 to 2 percent slopes	NW1/WW1 Classification: None		Wetland ID: Wetland 26
Landform: Rise	Local Relief: Convex		Sample Point: SP 59
Slope (%): 1	Latitude: 40.124852	Longitude: -82.453654	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: UPL
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **FcA: Fitchville silt loam, 0 to 2 percent slopes**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	--	10YR	3/4	100	--	--	--	--	silty clay
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
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--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 26** Sample Point: **SP 59**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)				
	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Sapling/Shrub Stratum (Plot size: 15 ft radius)				
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
Total Cover =		0		

Herb Stratum (Plot size: 5 ft radius)				
1.	<i>Elymus canadensis</i>	35	Y	FACU
2.	<i>Schedonorus arundinaceus</i>	35	Y	FACU
3.	<i>Alliaria petiolata</i>	15	N	FAC
4.	<i>Glechoma hederacea</i>	15	N	FACU
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--
Total Cover =		100		

Woody Vine Stratum (Plot size: 30 ft radius)				
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
Total Cover =		0		

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

Prevalence Index Worksheet

Total % Cover of:		Multiply by:	
OBL spp.	<u>0</u>	x 1 =	<u>0</u>
FACW spp.	<u>0</u>	x 2 =	<u>0</u>
FAC spp.	<u>15</u>	x 3 =	<u>45</u>
FACU spp.	<u>85</u>	x 4 =	<u>340</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>
Total		<u>100</u> (A)	<u>385</u> (B)
Prevalence Index = B/A =			<u>3.850</u>

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☒ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 01/13/21
Applicant: American Electric Power (AEP)			County: Licking
Investigator #1: Aaron Kwolek		Investigator #2: Kate Bomar	State: Ohio
Soil Unit: FcA: Fitchville silt loam, 0 to 2 percent slopes	NW1/WW1 Classification: None		Wetland ID: Wetland 26
Landform: Depression	Local Relief: Concave		Sample Point: SP 60
Slope (%): 1	Latitude: 40.124623	Longitude: -82.453618	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			Community ID: PSS
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Section: QSW	
		Township: T3N	
		Range: R12W Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Wetland Hydrology Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input checked="" type="checkbox"/> A2 - High Water Table <input checked="" type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input checked="" type="checkbox"/> D2 - Geomorphic Position <input checked="" type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 1 (in.) Water Table Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.) Saturation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Depth: 0 (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **FcA: Fitchville silt loam, 0 to 2 percent slopes**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Type	Location	Texture (e.g. clay, sand, loam)
			Color (Moist)	%	Color (Moist)	%					
0	4	--	10YR	2/1	100	--	--	--	--	--	silty clay
4	16	--	10YR	3/1	90	10YR	6/8	10	C	M	silty clay
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input checked="" type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **Wetland 26** Sample Point: **SP 60**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	<i>Rosa palustris</i>	30	Y	OBL
2.	<i>Salix nigra</i>	60	Y	OBL
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **90**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Symphotrichum novae-angliae</i>	25	Y	FACW
2.	<i>Typha latifolia</i>	30	N	OBL
3.	<i>Alliaria petiolata</i>	30	Y	FAC
4.	<i>Blephilia hirsuta</i>	5	N	FACU
5.	<i>Epilobium coloratum</i>	10	N	OBL
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **4** (A)

Total Number of Dominant Species Across All Strata: **4** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL spp.	130	x 1 =	130
FACW spp.	25	x 2 =	50
FAC spp.	30	x 3 =	90
FACU spp.	5	x 4 =	20
UPL spp.	0	x 5 =	0

Total **190** (A) **290** (B)

Prevalence Index = B/A = **1.526**

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project Stantec Project #: 193707328		Date: 03/03/21
Applicant: American Electric Power (AEP)		County: Licking
Investigator #1: Aaron Kwolek Investigator #2: Kate Bomar		State: Ohio
Soil Unit: Stonelick Loam, Occasionally Flooded NWI/WWI Classification: R3USA		Wetland ID: N/A
Landform: Toeslope Local Relief: Linear		Sample Point: SP 61
Slope (%): 0 Latitude: 40.11178 Longitude: -82.442355 Datum: WGS 84	Community ID: UPL	
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Section: N/A
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?	Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?	Township: N/A	
	Range: N/A Dir: N/A	

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Stonelick Loam, Occasionally Flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	16	1	10YR	4/3	100	--	--	--	--	fine sandy loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
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¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed)	Type:	Depth:	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **N/A** Sample Point: **SP 61**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	<u>Species Name</u>	<u>% Cover</u>	<u>Dominant</u>	<u>Ind. Status</u>
1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Phalaris arundinacea</i>	95	Y	FACW
2.	<i>Verbesina alternifolia</i>	1	N	FACW
3.	<i>Verbena hastata</i>	3	N	FACW
4.	<i>Conium maculatum</i>	1	N	FACW
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **100%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL spp.	0	x 1 =	0
FACW spp.	100	x 2 =	200
FAC spp.	0	x 3 =	0
FACU spp.	0	x 4 =	0
UPL spp.	0	x 5 =	0

Total **100** (A) **200** (B)

Prevalence Index = B/A = **2.000**

Hydrophytic Vegetation Indicators:

- | | | |
|---|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Dominance Test is > 50% |
| <input checked="" type="checkbox"/> Yes | <input type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☒ Yes ☐ No

Additional Remarks:

Project/Site: North Newark- Sharp Road 138 kV Transmission Line Rebuild Project		Stantec Project #: 193707328	Date: 03/03/21
Applicant: American Electric Power (AEP)		Investigator #1: Aaron Kwolek	Investigator #2: Kate Bomar
Soil Unit: Shoals Silt Loam, 0-2% Slopes, Occasionally Flooded		NW1/WW1 Classification: PEM1C	
Landform: Rise	Local Relief: Linear	Wetland ID: N/A	Sample Point: SP 62
Slope (%): 0	Latitude: 40.13335	Longitude: -82.459778	Datum: WGS 84
Are climatic/hydrologic conditions on the site typical for this time of year? (If no, explain in remarks) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		Community ID: UPL	Section: N/A
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> significantly disturbed?		Township: N/A	
Are Vegetation <input type="checkbox"/> , Soil <input type="checkbox"/> , or Hydrology <input type="checkbox"/> naturally problematic?		Range: N/A Dir: N/A	
Are normal circumstances present? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No			

SUMMARY OF FINDINGS

Hydrophytic Vegetation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Hydric Soils Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Is This Sampling Point Within A Wetland? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators (Check here if indicators are not present ☐):

<u>Primary:</u> <input type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input type="checkbox"/> B3 - Drift Deposits <input type="checkbox"/> B4 - Algal Mat or Crust <input type="checkbox"/> B5 - Iron Deposits <input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery <input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface	<input type="checkbox"/> B9 - Water-Stained Leaves <input type="checkbox"/> B13 - Aquatic Fauna <input type="checkbox"/> B14 - True Aquatic Plants <input type="checkbox"/> C1 - Hydrogen Sulfide Odor <input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots <input type="checkbox"/> C4 - Presence of Reduced Iron <input type="checkbox"/> C6 - Recent Iron Reduction in Tilled Soils <input type="checkbox"/> C7 - Thin Muck Surface <input type="checkbox"/> D9 - Gauge or Well Data <input type="checkbox"/> Other (Explain in Remarks)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input type="checkbox"/> B10 - Drainage Patterns <input type="checkbox"/> C2 - Dry-Season Water Table <input type="checkbox"/> C8 - Crayfish Burrows <input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery <input type="checkbox"/> D1 - Stunted or Stressed Plants <input type="checkbox"/> D2 - Geomorphic Position <input type="checkbox"/> D5 - FAC-Neutral Test
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Field Observations: Surface Water Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Water Table Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.) Saturation Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Depth: (in.)	Wetland Hydrology Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: **N/A**

Remarks:

SOILS

Map Unit Name: **Shoals Silt Loam, 0-2% Slopes, Occasionally Flooded**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.) (Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Top Depth	Bottom Depth	Horizon	Matrix		Redox Features				Texture (e.g. clay, sand, loam)	
			Color (Moist)	%	Color (Moist)	%	Type	Location		
0	6	1	10YR	4/4	100	--	--	--	--	fine sandy loam
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--
--	--	--	--	--	--	--	--	--	--	--

NRCS Hydric Soil Field Indicators (check here if indicators are not present <input type="checkbox"/>): <input type="checkbox"/> A1- Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers <input type="checkbox"/> A10 - 2 cm Muck <input type="checkbox"/> A11 - Depleted Below Dark Surface <input type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Muck Mineral <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat	<input type="checkbox"/> S4 - Sandy Gleyed Matrix <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Muck Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions	Indicators for Problematic Soils ¹ <input type="checkbox"/> A16 - Coast Prairie Redox <input type="checkbox"/> S7 - Dark Surface <input type="checkbox"/> F12 - Iron-Manganese Masses <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks)
---	---	--

¹ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (If Observed) Type: rock Depth: 6	Hydric Soil Present? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Remarks:

Project/Site: **North Newark- Sharp Road 138 kV Transmission Line Rebuild Project** Wetland ID: **N/A** Sample Point: **SP 62**

VEGETATION (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	<i>Picea abies</i>	15	Y	UPL
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **15**

Sapling/Shrub Stratum (Plot size: 15 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--

Total Cover = **0**

Herb Stratum (Plot size: 5 ft radius)

1.	<i>Schedonorus arundinaceus</i>	95	Y	FACU
2.	<i>Taraxacum officinale</i>	5	N	FACU
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--
6.	--	--	--	--
7.	--	--	--	--
8.	--	--	--	--
9.	--	--	--	--
10.	--	--	--	--
11.	--	--	--	--
12.	--	--	--	--
13.	--	--	--	--
14.	--	--	--	--
15.	--	--	--	--

Total Cover = **100**

Woody Vine Stratum (Plot size: 30 ft radius)

1.	--	--	--	--
2.	--	--	--	--
3.	--	--	--	--
4.	--	--	--	--
5.	--	--	--	--

Total Cover = **0**

Remarks:

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **0** (A)

Total Number of Dominant Species Across All Strata: **2** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **0%** (A/B)

Prevalence Index Worksheet

Total % Cover of:

Multiply by:

OBL spp.	0	x 1 =	0
FACW spp.	0	x 2 =	0
FAC spp.	0	x 3 =	0
FACU spp.	100	x 4 =	400
UPL spp.	15	x 5 =	75

Total **115** (A) **475** (B)

Prevalence Index = B/A = **4.130**

Hydrophytic Vegetation Indicators:

- | | | |
|------------------------------|--|--|
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Rapid Test for Hydrophytic Vegetation |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Dominance Test is > 50% |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Prevalence Index is ≤ 3.0 * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Morphological Adaptations (Explain) * |
| <input type="checkbox"/> Yes | <input checked="" type="checkbox"/> No | Problem Hydrophytic Vegetation (Explain) * |

* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/Shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft. tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft. tall.

Woody Vines - All woody vines greater than 3.28 ft. in height.

Hydrophytic Vegetation Present ☐ Yes ☒ No

Additional Remarks:

**NORTH NEWARK–SHARP ROAD 138 KV TRANSMISSION LINE REBUILD PROJECT ECOLOGICAL
RESOURCES INVENTORY REPORT**

April 23, 2021

D.2 ORAM DATA FORMS

Version 5.0	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization	
	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

Instructions

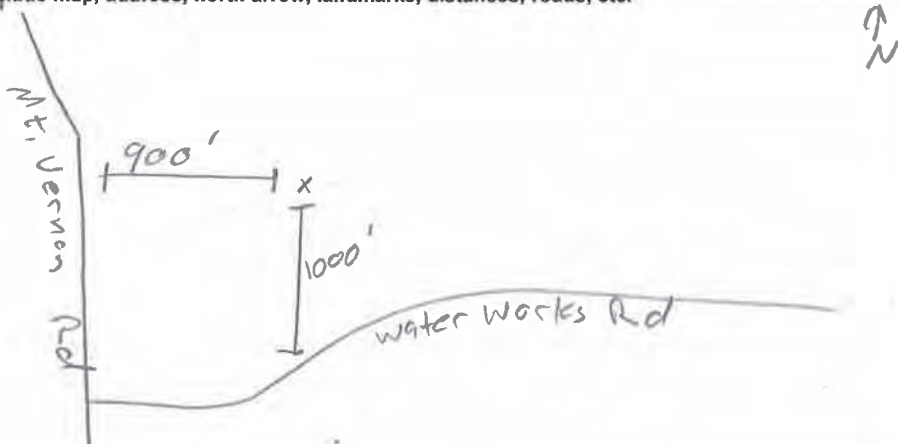
The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>







Background Information

Name:	Aaron Kwolek		
Date:	20191212		
Affiliation:	Stantec		
Address:	11687 Lebanon Rd Cincinnati, OH 45241		
Phone Number:	513 842 8200		
e-mail address:	Aaron.kwolek@stantec.com		
Name of Wetland:	Wetland 1		
Vegetation Community(ies):	PEM		
HGM Class(es):	Depressional		
Location of Wetland: Include map, address, north arrow, landmarks, distances, roads, etc.			
			
Lat/Long or UTM Coordinate	40.089838° N, -82.416188° W		
USGS Quad Name	Newark		
County	Licking		
Township	Newark, T2N		
Section and Subsection	R12W, QNE		
Hydrologic Unit Code	050400060205		
Site Visit	20191212		
National Wetland Inventory Map	N/A		
Ohio Wetland Inventory Map	N/A		
Soil Survey	Pg - Pits, gravel		
Delineation report/map	See Ecological Resources Inventory Report		

Name of Wetland: <u>Wetland 1</u>	
Wetland Size (acres, hectares): <u>20,192</u>	
Sketch: Include north arrow, relationship with other surface waters, vegetation zones, etc.	
Comments, Narrative Discussion, Justification of Category Changes:	
<div>Final score : <u>6</u></div> <div>Category: <u>1</u></div>	

Scoring Boundary Worksheet

INSTRUCTIONS. The initial step in completing the ORAM¹ is to identify the “scoring boundaries” of the wetland being rated. In many instances this determination will be relatively easy and the scoring boundaries will coincide with the “jurisdictional boundaries.” For example, the scoring boundary of an isolated cattail marsh located in the middle of a farm field will likely be the same as that wetland’s jurisdictional boundaries. In other instances, however, the scoring boundary will not be as easily determined. Wetlands that are small or isolated from other surface waters often form large contiguous areas or heterogeneous complexes of wetland and upland. In separating wetlands for scoring purposes, the hydrologic regime of the wetland is the main criterion that should be used. Boundaries between contiguous or connected wetlands should be established where the volume, flow, or velocity of water moving through the wetland changes significantly. *Areas with a high degree of hydrologic interaction should be scored as a single wetland.* In determining a wetland’s scoring boundaries, use the guidelines in the ORAM Manual Section 5.0. In certain instances, it may be difficult to establish the scoring boundary for the wetland being rated. These problem situations include wetlands that form a patchwork on the landscape, wetlands divided by artificial boundaries like property fences, roads, or railroad embankments, wetlands that are contiguous with streams, lakes, or rivers, and estuarine or coastal wetlands. These situations are discussed below, however, it is recommended that Rater contact Ohio EPA, Division of Surface Water, 401/Wetlands Section if there are additional questions or a need for further clarification of the appropriate scoring boundaries of a particular wetland.

#	Steps in properly establishing scoring boundaries	done?	not applicable
Step 1	Identify the wetland area of interest. This may be the site of a proposed impact, a reference site, conservation site, etc.		
Step 2	Identify the locations where there is physical evidence that hydrology changes rapidly. Such evidence includes both natural and human-induced changes including, constrictions caused by berms or dikes, points where the water velocity changes rapidly at rapids or falls, points where significant inflows occur at the confluence of rivers, or other factors that may restrict hydrologic interaction between the wetlands or parts of a single wetland.		
Step 3	Delineate the boundary of the wetland to be rated such that all areas of interest that are contiguous to and within the areas where the hydrology does not change significantly, i.e. areas that have a high degree of hydrologic interaction are included within the scoring boundary.		
Step 4	Determine if artificial boundaries, such as property lines, state lines, roads, railroad embankments, etc., are present. These should not be used to establish scoring boundaries unless they coincide with areas where the hydrologic regime changes.		
Step 5	In all instances, the Rater may enlarge the minimum scoring boundaries discussed here to score together wetlands that could be scored separately.		
Step 6	Consult ORAM Manual Section 5.0 for how to establish scoring boundaries for wetlands that form a patchwork on the landscape, divided by artificial boundaries, contiguous to streams, lakes or rivers, or for dual classifications.		

End of Scoring Boundary Determination. Begin Narrative Rating on next page.

Narrative Rating

INSTRUCTIONS. Answer each of the following questions. Questions 1, 2, 3 and 4 should be answered based on information obtained from the site visit or the literature *and* by submitting a Data Services Request to the Ohio Department of Natural Resources, Division of Natural Areas and Preserves, Natural Heritage Data Services, 1889 Fountain Square Court, Building F-1, Columbus, Ohio 43224, 614-265-6453 (phone), 614-265-3096 (fax), <http://www.dnr.state.oh.us/dnap>. The remaining questions are designed to be answered primarily by the results of the site visit. Refer to the User's Manual for descriptions of these wetland types. Note: "Critical habitat" is legally defined in the Endangered Species Act and is the geographic area containing physical or biological features essential to the conservation of a listed species or as an area that may require special management considerations or protection. The Rater should contact the Region 3 Headquarters or the Columbus Ecological Services Office for updates as to whether critical habitat has been designated for other federally listed threatened or endangered species. "Documented" means the wetland is listed in the appropriate State of Ohio database.

#	Question	Circle one	
1	Critical Habitat. Is the wetland in a township, section, or subsection of a United States Geological Survey 7.5 minute Quadrangle that has been designated by the U.S. Fish and Wildlife Service as "critical habitat" for any threatened or endangered plant or animal species? Note: as of January 1, 2001, of the federally listed endangered or threatened species which can be found in Ohio, the Indiana Bat has had critical habitat designated (50 CFR 17.95(a)) and the piping plover has had critical habitat proposed (65 FR 41812 July 6, 2000).	YES Wetland should be evaluated for possible Category 3 status Go to Question 2	NO Go to Question 2
2	Threatened or Endangered Species. Is the wetland known to contain an individual of, or documented occurrences of federal or state-listed threatened or endangered plant or animal species?	YES Wetland is a Category 3 wetland. Go to Question 3	NO Go to Question 3
3	Documented High Quality Wetland. Is the wetland on record in Natural Heritage Database as a high quality wetland?	YES Wetland is a Category 3 wetland Go to Question 4	NO Go to Question 4
4	Significant Breeding or Concentration Area. Does the wetland contain documented regionally significant breeding or nonbreeding waterfowl, neotropical songbird, or shorebird concentration areas?	YES Wetland is a Category 3 wetland Go to Question 5	NO Go to Question 5
5	Category 1 Wetlands. Is the wetland less than 0.5 hectares (1 acre) in size and hydrologically isolated and either 1) comprised of vegetation that is dominated (greater than eighty per cent areal cover) by <i>Phalaris arundinacea</i> , <i>Lythrum salicaria</i> , or <i>Phragmites australis</i> , or 2) an acidic pond created or excavated on mined lands that has little or no vegetation?	YES Wetland is a Category 1 wetland Go to Question 6	NO Go to Question 6
6	Bogs. Is the wetland a peat-accumulating wetland that 1) has no significant inflows or outflows, 2) supports acidophilic mosses, particularly <i>Sphagnum</i> spp., 3) the acidophilic mosses have >30% cover, 4) at least one species from Table 1 is present, and 5) the cover of invasive species (see Table 1) is <25%?	YES Wetland is a Category 3 wetland Go to Question 7	NO Go to Question 7
7	Fens. Is the wetland a carbon accumulating (peat, muck) wetland that is saturated during most of the year, primarily by a discharge of free flowing, mineral rich, ground water with a circumneutral pH (5.5-9.0) and with one or more plant species listed in Table 1 and the cover of invasive species listed in Table 1 is <25%?	YES Wetland is a Category 3 wetland Go to Question 8a	NO Go to Question 8a
8a	"Old Growth Forest." Is the wetland a forested wetland and is the forest characterized by, but not limited to, the following characteristics: overstory canopy trees of great age (exceeding at least 50% of a projected maximum attainable age for a species); little or no evidence of human-caused understory disturbance during the past 80 to 100 years; an all-aged structure and multilayered canopies; aggregations of canopy trees interspersed with canopy gaps; and significant numbers of standing dead snags and downed logs?	YES Wetland is a Category 3 wetland. Go to Question 8b	NO Go to Question 8b

Wetland 1

8b	Mature forested wetlands. Is the wetland a forested wetland with 50% or more of the cover of upper forest canopy consisting of deciduous trees with large diameters at breast height (dbh), generally diameters greater than 45cm (17.7in) dbh?	YES Wetland should be evaluated for possible Category 3 status. Go to Question 9a	NO Go to Question 9a
9a	Lake Erie coastal and tributary wetlands. Is the wetland located at an elevation less than 575 feet on the USGS map, adjacent to this elevation, or along a tributary to Lake Erie that is accessible to fish?	YES Go to Question 9b	NO Go to Question 10
9b	Does the wetland's hydrology result from measures designed to prevent erosion and the loss of aquatic plants, i.e. the wetland is partially hydrologically restricted from Lake Erie due to lakeward or landward dikes or other hydrological controls?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 9c
9c	Are Lake Erie water levels the wetland's primary hydrological influence, i.e. the wetland is hydrologically unrestricted (no lakeward or upland border alterations), or the wetland can be characterized as an "estuarine" wetland with lake and river influenced hydrology. These include sandbar deposition wetlands, estuarine wetlands, river mouth wetlands, or those dominated by submersed aquatic vegetation.	YES Go to Question 9d	NO Go to Question 10
9d	Does the wetland have a predominance of native species within its vegetation communities, although non-native or disturbance tolerant native species can also be present?	YES Wetland is a Category 3 wetland Go to Question 10	NO Go to Question 9e
9e	Does the wetland have a predominance of non-native or disturbance tolerant native plant species within its vegetation communities?	YES Wetland should be evaluated for possible Category 3 status Go to Question 10	NO Go to Question 10
10	Lake Plain Sand Prairies (Oak Openings) Is the wetland located in Lucas, Fulton, Henry, or Wood Counties and can the wetland be characterized by the following description: the wetland has a sandy substrate with interspersed organic matter, a water table often within several inches of the surface, and often with a dominance of the gramineous vegetation listed in Table 1 (woody species may also be present). The Ohio Department of Natural Resources Division of Natural Areas and Preserves can provide assistance in confirming this type of wetland and its quality.	YES Wetland is a Category 3 wetland. Go to Question 11	NO Go to Question 11
11	Relict Wet Prairies. Is the wetland a relict wet prairie community dominated by some or all of the species in Table 1. Extensive prairies were formerly located in the Darby Plains (Madison and Union Counties), Sandusky Plains (Wyandot, Crawford, and Marion Counties), northwest Ohio (e.g. Erie, Huron, Lucas, Wood Counties), and portions of western Ohio Counties (e.g. Darke, Mercer, Miami, Montgomery, Van Wert etc.).	YES Wetland should be evaluated for possible Category 3 status Complete Quantitative Rating	NO Complete Quantitative Rating

Table 1. Characteristic plant species.

invasive/exotic spp	fen species	bog species	Oak Opening species	wet prairie species
<i>Lythrum salicaria</i>	<i>Zygadenus elegans</i> var. <i>glaucus</i>	<i>Calla palustris</i>	<i>Carex cryptolepis</i>	<i>Calamagrostis canadensis</i>
<i>Myriophyllum spicatum</i>	<i>Cacalia plantaginea</i>	<i>Carex atlantica</i> var. <i>capillacea</i>	<i>Carex lasiocarpa</i>	<i>Calamagrostis stricta</i>
<i>Najas minor</i>	<i>Carex flava</i>	<i>Carex echinata</i>	<i>Carex stricta</i>	<i>Carex atherodes</i>
<i>Phalaris arundinacea</i>	<i>Carex sterilis</i>	<i>Carex oligosperma</i>	<i>Cladium mariscoides</i>	<i>Carex buxbaumii</i>
<i>Phragmites australis</i>	<i>Carex stricta</i>	<i>Carex trisperma</i>	<i>Calamagrostis stricta</i>	<i>Carex pellita</i>
<i>Potamogeton crispus</i>	<i>Deschampsia caespitosa</i>	<i>Chamaedaphne calyculata</i>	<i>Calamagrostis canadensis</i>	<i>Carex sartwellii</i>
<i>Ranunculus ficaria</i>	<i>Eleocharis rostellata</i>	<i>Decodon verticillatus</i>	<i>Quercus palustris</i>	<i>Gentiana andrewsii</i>
<i>Rhamnus frangula</i>	<i>Eriophorum viridicaratum</i>	<i>Eriophorum virginicum</i>		<i>Helianthus grosseserratus</i>
<i>Typha angustifolia</i>	<i>Gentianopsis</i> spp.	<i>Larix laricina</i>		<i>Liatris spicata</i>
<i>Typha xglauca</i>	<i>Lobelia kalmii</i>	<i>Nemopanthus mucronatus</i>		<i>Lysimachia quadriflora</i>
	<i>Parnassia glauca</i>	<i>Scheuchzeria palustris</i>		<i>Lythrum alatum</i>
	<i>Potentilla fruticosa</i>	<i>Sphagnum</i> spp.		<i>Pycnanthemum virginianum</i>
	<i>Rhamnus alnifolia</i>	<i>Vaccinium macrocarpon</i>		<i>Silphium terebinthinaceum</i>
	<i>Rhynchospora capillacea</i>	<i>Vaccinium corymbosum</i>		<i>Sorghastrum nutans</i>
	<i>Salix candida</i>	<i>Vaccinium oxycoccus</i>		<i>Spartina pectinata</i>
	<i>Salix myricoides</i>	<i>Woodwardia virginica</i>		<i>Solidago riddellii</i>
	<i>Salix serissima</i>	<i>Xyris difformis</i>		
	<i>Solidago ohioensis</i>			
	<i>Tofieldia glutinosa</i>			
	<i>Triglochin maritimum</i>			
	<i>Triglochin palustre</i>			

End of Narrative Rating. Begin Quantitative Rating on next page.

Site: <u>Wetland 1</u>	Rater(s): <u>ATK</u>	Date: <u>12/12/19</u>
-------------------------------	-----------------------------	------------------------------

max 6 pts.	subtotal

Metric 1. Wetland Area (size).

Select one size class and assign score.

- ☐ >50 acres (>20.2ha) (6 pts)
- ☐ 25 to <50 acres (10.1 to <20.2ha) (5 pts)
- ☐ 10 to <25 acres (4 to <10.1ha) (4 pts)
- ☐ 3 to <10 acres (1.2 to <4ha) (3 pts)
- ☐ 0.3 to <3 acres (0.12 to <1.2ha) (2pts)
- ☐ 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)
- ☒ <0.1 acres (0.04ha) (0 pts)

max 14 pts.	subtotal

Metric 2. Upland buffers and surrounding land use.

2a. Calculate average buffer width. Select only one and assign score. Do not double check.

- ☐ WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7)
- ☐ MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4)
- ☐ NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1)
- ☒ VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)

2b. Intensity of surrounding land use. Select one or double check and average.

- ☐ VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7)
- ☐ LOW. Old field (>10 years), shrub land, young second growth forest. (5)
- ☐ MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)
- ☒ HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)

max 30 pts.	subtotal

Metric 3. Hydrology.

3a. Sources of Water. Score all that apply.

- ☐ High pH groundwater (5)
- ☐ Other groundwater (3)
- ☒ Precipitation (1)
- ☐ Seasonal/intermittent surface water (3)
- ☐ Perennial surface water (lake or stream) (5)

3c. Maximum water depth. Select only one and assign score.

- ☐ >0.7 (27.6in) (3)
- ☐ 0.4 to 0.7m (15.7 to 27.6in) (2)
- ☒ <0.4m (<15.7in) (1)

3e. Modifications to natural hydrologic regime. Score one or double check and average.

- ☐ None or none apparent (12)
- ☐ Recovered (7)
- ☐ Recovering (3)
- ☒ Recent or no recovery (1)

3b. Connectivity. Score all that apply.

- ☒ 100 year floodplain (1)
- ☒ Between stream/lake and other human use (1)
- ☐ Part of wetland/upland (e.g. forest), complex (1)
- ☐ Part of riparian or upland corridor (1)

3d. Duration inundation/saturation. Score one or dbl check.

- ☐ Semi- to permanently inundated/saturated (4)
- ☐ Regularly inundated/saturated (3)
- ☒ Seasonally inundated (2)
- ☐ Seasonally saturated in upper 30cm (12in) (1)

Check all disturbances observed

- ☐ ditch
- ☐ tile
- ☐ dike
- ☐ weir
- ☐ stormwater input

- ☒ point source (nonstormwater)
- ☒ filling/grading
- ☐ road bed/RR track
- ☐ dredging
- ☐ other

max 20 pts.	subtotal

Metric 4. Habitat Alteration and Development.

4a. Substrate disturbance. Score one or double check and average.

- ☐ None or none apparent (4)
- ☐ Recovered (3)
- ☐ Recovering (2)
- ☒ Recent or no recovery (1)

4b. Habitat development. Select only one and assign score.

- ☐ Excellent (7)
- ☐ Very good (6)
- ☐ Good (5)
- ☐ Moderately good (4)
- ☐ Fair (3)
- ☐ Poor to fair (2)
- ☒ Poor (1)

4c. Habitat alteration. Score one or double check and average.

- ☐ None or none apparent (9)
- ☐ Recovered (6)
- ☐ Recovering (3)
- ☒ Recent or no recovery (1)

Check all disturbances observed

- ☐ mowing
- ☐ grazing
- ☒ clearcutting
- ☐ selective cutting
- ☐ woody debris removal
- ☐ toxic pollutants

- ☒ shrub/sapling removal
- ☒ herbaceous/aquatic bed removal
- ☐ sedimentation
- ☐ dredging
- ☐ farming
- ☐ nutrient enrichment

subtotal this page	

Site: <u>Wetland 1</u>	Rater(s): <u>AJC</u>	Date: <u>12/12/19</u>
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11

subtotal first page

0	11
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max 10 pts.

subtotal

Metric 5. Special Wetlands.

Check all that apply and score as indicated.

- ☐ Bog (10)
- ☐ Fen (10)
- ☐ Old growth forest (10)
- ☐ Mature forested wetland (5)
- ☐ Lake Erie coastal/tributary wetland-unrestricted hydrology (10)
- ☐ Lake Erie coastal/tributary wetland-restricted hydrology (5)
- ☐ Lake Plain Sand Prairies (Oak Openings) (10)
- ☐ Relict Wet Prairies (10)
- ☐ Known occurrence state/federal threatened or endangered species (10)
- ☐ Significant migratory songbird/water fowl habitat or usage (10)
- ☐ Category 1 Wetland. See Question 1 Qualitative Rating (-10)

-5	6
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max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- ☒ Emergent
- ☐ Shrub
- ☐ Forest
- ☐ Mudflats
- ☐ Open water
- ☐ Other

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high(4)
- ☐ Moderate (3)
- ☐ Moderately low (2)
- ☐ Low (1)
- ☒ None (0)

6c. Coverage of invasive plants. Refer to Table 1 ORAM long form for list. Add or deduct points for coverage

- ☒ Extensive >75% cover (-5)
- ☐ Moderate 25-75% cover (-3)
- ☐ Sparse 5-25% cover (-1)
- ☐ Nearly absent <5% cover (0)
- ☐ Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- ☐ Coarse woody debris >15cm (6in)
- ☐ Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

Vegetation Community Cover Scale

0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
2	Present and either comprises significant part of wetland's vegetation and is of moderate quality or comprises a small part and is of high quality
3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality

Narrative Description of Vegetation Quality

low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generally w/o presence of rare threatened or endangered spp
high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp

Mudflat and Open Water Class Quality

0	Absent <0.1ha (0.247 acres)
1	Low 0.1 to <1ha (0.247 to 2.47 acres)
2	Moderate 1 to <4ha (2.47 to 9.88 acres)
3	High 4ha (9.88 acres) or more

Microtopography Cover Scale

0	Absent
1	Present very small amounts or if more common of marginal quality
2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
3	Present in moderate or greater amounts and of highest quality

End of Quantitative Rating. Complete Categorization Worksheets.

Typing angustifolia

6

ORAM Summary Worksheet

		circle answer or insert score	Result
Narrative Rating	Question 1 Critical Habitat	YES NO	If yes, Category 3.
	Question 2. Threatened or Endangered Species	YES NO	If yes, Category 3.
	Question 3. High Quality Natural Wetland	YES NO	If yes, Category 3.
	Question 4. Significant bird habitat	YES NO	If yes, Category 3.
	Question 5. Category 1 Wetlands	YES NO	If yes, Category 1.
	Question 6. Bogs	YES NO	If yes, Category 3.
	Question 7. Fens	YES NO	If yes, Category 3.
	Question 8a. Old Growth Forest	YES NO	If yes, Category 3.
	Question 8b. Mature Forested Wetland	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9b. Lake Erie Wetlands - Restricted	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 9d. Lake Erie Wetlands - Unrestricted with native plants	YES NO	If yes, Category 3
Quantitative Rating	Question 9e. Lake Erie Wetlands - Unrestricted with invasive plants	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Question 10. Oak Openings	YES NO	If yes, Category 3
	Question 11. Relict Wet Prairies	YES NO	If yes, evaluate for Category 3; may also be 1 or 2.
	Metric 1. Size	0	
	Metric 2. Buffers and surrounding land use	1	
	Metric 3. Hydrology	7	
	Metric 4. Habitat	3	
Metric 5. Special Wetland Communities	0		
Metric 6. Plant communities, interspersions, microtopography	-5		
TOTAL SCORE	6	Category based on score breakpoints 1	

Complete Wetland Categorization Worksheet.

Wetland Categorization Worksheet

Choices	Circle one	NO	Evaluation of Categorization Result of ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 2, 3, 4, 6, 7, 8a, 9d, 10	YES Wetland is categorized as a Category 3 wetland	NO	Is quantitative rating score <i>less</i> than the Category 2 scoring threshold (<i>excluding</i> gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been over-categorized by the ORAM
Did you answer "Yes" to any of the following questions: Narrative Rating Nos. 1, 8b, 9b, 9e, 11	YES Wetland should be evaluated for possible Category 3 status	NO	Evaluate the wetland using the 1) narrative criteria in OAC Rule 3745-1-54(C) and 2) the quantitative rating score. If the wetland is determined to be a Category 3 wetland using either of these, it should be categorized as a Category 3 wetland. Detailed biological and/or functional assessments may also be used to determine the wetland's category.
Did you answer "Yes" to Narrative Rating No. 5	YES Wetland is categorized as a Category 1 wetland	NO	Is quantitative rating score <i>greater</i> than the Category 2 scoring threshold (<i>including</i> any gray zone)? If yes, reevaluate the category of the wetland using the narrative criteria in OAC Rule 3745-1-54(C) and biological and/or functional assessments to determine if the wetland has been under-categorized by the ORAM
Does the quantitative score fall within the scoring range of a Category 1, 2, or 3 wetland?	YES Wetland is assigned to the appropriate category based on the scoring range	NO	If the score of the wetland is located within the scoring range for a particular category, the wetland should be assigned to that category. In all instances however, the narrative criteria described in OAC Rule 3745-1-54(C) can be used to clarify or change a categorization based on a quantitative score.
Does the quantitative score fall with the "gray zone" for Category 1 or 2 or Category 2 or 3 wetlands?	YES Wetland is assigned to the higher of the two categories or assigned to a category based on detailed assessments and the narrative criteria	NO	Rater has the option of assigning the wetland to the higher of the two categories or to assign a category based on the results of a nonrapid wetland assessment method, e.g. functional assessment, biological assessment, etc. and a consideration of the narrative criteria in OAC rule 3745-1-54(C).
Does the wetland otherwise exhibit <i>moderate OR superior</i> hydrologic OR habitat, OR recreational functions AND the wetland was <i>not</i> categorized as a Category 2 wetland (in the case of moderate functions) or a Category 3 wetland (in the case of superior functions) by this method?	YES Wetland was undercategorized by this method. A written justification for recategorization should be provided on Background Information Form	NO Wetland is assigned to category as determined by the ORAM.	A wetland may be undercategorized using this method, but still exhibit one or more superior functions, e.g. a wetland's biotic communities may be degraded by human activities, but the wetland may still exhibit superior hydrologic functions because of its type, landscape position, size, local or regional significance, etc. In this circumstance, the narrative criteria in OAC Rule 3745-1-54(C)(2) and (3) are controlling, and the under-categorization should be corrected. A written justification with supporting reasons or information for this determination should be provided.

Final Category			
Choose one	Category 1	Category 2	Category 3

End of Ohio Rapid Assessment Method for Wetlands.

Version 5.0	Ohio Rapid Assessment Method for Wetlands 10 Page Form for Wetland Categorization	
	Background Information Scoring Boundary Worksheet Narrative Rating Field Form Quantitative Rating ORAM Summary Worksheet Wetland Categorization Worksheet	Ohio EPA, Division of Surface Water Final: February 1, 2001

Instructions

The investigator is *STRONGLY URGED* to read the Manual for Using the Ohio Rapid Assessment Method for Wetlands for further elaboration and discussion of the questions below prior to using the rating forms.

The Narrative Rating is designed to categorize a wetland or to provide alerts to the Rater based on the presence or possible presence of threatened or endangered species. The presence or proximity of such species is often an indicator of the quality and lack of disturbance of the wetland being evaluated. In addition, it is designed to categorize certain wetlands as very low quality (Category 1) or very high quality (Category 3) regardless of the wetland's score on the Quantitative Rating. In addition, the Narrative Rating also alerts the investigator that a particular wetland *may* be a Category 3 wetland, again, regardless of the wetland's score on the Quantitative Rating.

It is *VERY IMPORTANT* to properly and thoroughly answer each of the questions in the ORAM in order to properly categorize a wetland. To *properly* answer all the questions, the boundaries of the wetland being assessed must be correctly identified. Refer to Scoring Boundary worksheet and the User's Manual for a discussion of how to determine the "scoring boundaries." In some instances, the scoring boundaries may differ from the "jurisdictional boundaries."

Refer to the most recent ORAM Score Calibration Report for the scoring breakpoints between wetland categories. The most recent version of this document is posted on Ohio EPA's Division of Surface Water web page at: <http://www.epa.ohio.gov/dsw/wetlands/WetlandEcologySection.aspx>

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in

Case No(s). 21-0525-EL-BLN

Summary: Notice Letter of Notification Application for the North Newark-Sharp Road 138 kV Transmission Line Rebuild Project 401-500 electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.