

VEGETATION - Use scientific names of plants
Sampling Point: DP08_W04

Tree Stratum Plot Size (30 ft.)					50/20 Thresholds		
		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1	<i>Acer rubrum</i>	50	Y	FAC	Tree Stratum	14	35
2	<i>Ulmus americana</i>	20	Y	FACW	Sapling/Shrub Stratum	10	25
3					Herb Stratum	17	43
4					Woody Vine Stratum	0	0
5					Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>6</u> (A) Total Number of Dominant Species Across <u>7</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>85.71%</u> (A/B)		
6							
7							
8							
9							
10							
		70	= Total Cover				
Sapling/Shrub Stratum Plot Size (15 ft.)					Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>105</u> x 2 = <u>210</u> FAC species <u>90</u> x 3 = <u>270</u> FACU species <u>10</u> x 4 = <u>40</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>205</u> (A) <u>520</u> (B) Prevalence Index = B/A = <u>2.54</u>		
1	<i>Acer rubrum</i>	40	Y	FAC			
2	<i>Sassafras albidum</i>	10	Y	FACU			
3							
4							
5							
6					Hydrophytic Vegetation Indicators: ☐ Rapid test for hydrophytic vegetation ☒ Dominance test is >50% ☒ Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
7							
8							
9							
10							
11							
		50	= Total Cover				
Herb Stratum Plot Size (5 ft.)					Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) 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 (1 m) 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.		
1	<i>Leersia oryzoides</i>	30	Y	FACW			
2	<i>Woodwardia areolata</i>	30	Y	FACW			
3	<i>Scirpus cyperinus</i>	25	Y	FACW			
4							
5							
6					Hydrophytic vegetation present? <u>Y</u>		
7							
8							
9							
10							
11							
		85	= Total Cover				
Woody Vine Stratum Plot Size (30 ft.)							
1							
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)							

SOIL
Sampling Point: DP08_W04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-5	7.5YR 4/1	80	7.5YR 5/8	20	C	M	sandy loam	
5-18	7.5YR 4/1	60	7.5YR 5/8	20	C	M	sandy loam	
			7.5YR 5/6	20	C	M	sandy loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|--|
| ☐ Histisol (A1) | ☐ Dark Surface (S7) |
| ☐ Histic Epipedon (A2) | ☐ Polyvalue Below Surface (S8) |
| ☐ Black Histic (A3) | ☐ (MLRA 147, 148) |
| ☐ Hydrogen Sulfide (A4) | ☐ Thin Dark Surface (S9) |
| ☐ Stratified Layers (A5) | ☐ (MLRA 147, 148) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☒ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ (LRR N, MLRA 147, 148) | ☐ Redox Depressions (F8) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Redox (S5) | ☐ Umbric Surface (F13) (MLRA 136, 122) |
| ☐ Stripped Matrix (S6) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| | ☐ Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (Explain in Remarks) |

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

 Hydric soil present? Y

Remarks:

Site: AEP Gavin 138 kV Transmission Line - W01	Rater(s): Sam Bower	Date: 10/15/2013
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0	0
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)

10	10
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), shrubland, 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)

6.5	16.5
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 _____

7	23.5
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

23.5

subtotal this page

Site: AEP Gavin 138 kV Transmission Line - W01	Rater(s): Sam Bower	Date: 10/15/2013
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23.5

subtotal first page

0	23.5
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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)

2	25.5
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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
- ☒ 1 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)
- ☒ X 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)
- ☒ X 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

25.5

GRAND TOTAL (max 100 pts)

Site: AEP Gavin 138 kV Transmission Line - W02	Rater(s): Sam Bower	Date: 10/16/2013
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0	0
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)

7	7
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), shrubland, 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)

18.5	25.5
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 _____

7.5	33
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

33
subtotal this page

Site: AEP Gavin 138 kV Transmission Line - W02	Rater(s): Sam Bower	Date: 10/16/2013
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33

subtotal first page

0	33
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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)

6	39
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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
- ☐ 1 Emergent
- ☐ Shrub
- ☐ 1 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
- ☐ 1 Coarse woody debris >15cm (6in)
- ☐ 1 Standing dead >25cm (10in) dbh
- ☐ Amphibian breeding pools

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Narrative Description of Vegetation Quality

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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

39	GRAND TOTAL (max 100 pts)
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Site: AEP Gavin 138 kV Transmission Line - W03	Rater(s): Sam Bower	Date: 10/16/2013
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0	0
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)

7	7
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), shrubland, 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)

12.5	19.5
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 _____

6.5	26
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

26

subtotal this page

Site: AEP Gavin 138 kV Transmission Line - W03	Rater(s): Sam Bower	Date: 10/16/2013
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26

subtotal first page

0

26

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)

4

30

max 20 pts.

subtotal

Metric 6. Plant communities, interspersions, microtopography.

6a. Wetland Vegetation Communities.

Score all present using 0 to 3 scale.

- ☐ Aquatic bed
- 1

 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)
- x

 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)
- x

 Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- 1

 Coarse woody debris >15cm (6in)
- 1

 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

30

GRAND TOTAL (max 100 pts)

Site: AEP Gavin 138 kV Transmission Line - W04	Rater(s): Sam Bower	Date: 10/16/2013
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2	2
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)

7	9
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), shrubland, 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)

18.5	27.5
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	☒ point source (nonstormwater)
☐ tile	☐ filling/grading
☐ dike	☐ road bed/RR track
☐ weir	☐ dredging
☐ stormwater input	☐ other _____

10	37.5
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	☐ shrub/sapling removal
☐ grazing	☐ herbaceous/aquatic bed removal
☐ clearcutting	☐ sedimentation
☐ selective cutting	☐ dredging
☐ woody debris removal	☐ farming
☒ toxic pollutants	☐ nutrient enrichment

37.5

subtotal this page

Site: AEP Gavin 138 kV Transmission Line - W04	Rater(s): Sam Bower	Date: 10/16/2013
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37.5

subtotal first page

0	37.5
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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)

9	46.5
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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
- ☒ 1 Emergent
- ☐ Shrub
- ☒ 1 Forest
- ☐ Mudflats
- ☒ 1 Open water
- ☐ Other _____

6b. horizontal (plan view) Interspersion.

Select only one.

- ☐ High (5)
- ☐ Moderately high(4)
- ☐ Moderate (3)
- ☒ x 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)
- ☒ X Absent (1)

6d. Microtopography.

Score all present using 0 to 3 scale.

- ☐ Vegetated hummocks/tussocks
- ☒ 1 Coarse woody debris >15cm (6in)
- ☒ 1 Standing dead >25cm (10in) dbh
- ☒ 1 Amphibian breeding pools

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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)
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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

46.5

GRAND TOTAL (max 100 pts)

POND DATA SHEET

FEATURE ID: P02		ASSOCIATED FEATURES: W02	
SURVEY TYPE: Centerline/Survey Corridor			
DATE: 10/15/2013		CLIENT/PROJECT NAME: AEP / GAVIN 138 kV TRANSMISSION LINE	
INVESTIGATORS: S. Bower and B. Cross		ROUTE: Route 1	
STATE/COUNTY: OH/Gallia		IS THIS A MAPPED NWI FEATURE?: No	
WATERBODY CHARACTERISTICS			
WATERBODY TYPE:	Pond		
AVG. DEPTH:	Approximately 2-3 feet (within survey corridor)		
AVG. WIDTH (WATER SURFACE):	Approximately 150 feet (within survey corridor)		
APPROXIMATE SIZE:	>20 acres		
QUALITATIVE ATTRIBUTES			
AVERAGE WATER APPEARANCE:	Blue/green color; no vegetation.		
PRIMARY SUBSTRATE (IF OBSERVED):	Silt, muck, coal waste		
POTENTIAL HABITAT FOR:	None		
SURROUNDING LAND USE:	Commercial/industrial; second growth forest		
WETLAND FRINGE (IF PRESENT):	Edge of pond bordered by palustrine emergent vegetation		
COMMENTS			
P02 is utilized as a wet impoundment for coal fly ash from the AEP Gavin generating facility.			

POND DATA SHEET

FEATURE ID: P03		ASSOCIATED FEATURES: UD01, UD02	
SURVEY TYPE: Centerline/Survey Corridor			
DATE: 12/4/2013		CLIENT/PROJECT NAME: AEP / GAVIN 138 kV TRANSMISSION LINE	
INVESTIGATORS: S. Bower		ROUTE: NA	
STATE/COUNTY: OH/Gallia		IS THIS A MAPPED NWI FEATURE?: Yes	
WATERBODY CHARACTERISTICS			
WATERBODY TYPE:		Pond	
AVG. DEPTH:		Approximately 1 foot	
AVG. WIDTH (WATER SURFACE):		Approximately 50 feet	
APPROXIMATE SIZE:		< 1 acre	
QUALITATIVE ATTRIBUTES			
AVERAGE WATER APPEARANCE:		Clear; no vegetation.	
PRIMARY SUBSTRATE (IF OBSERVED):		Silts, organic material	
POTENTIAL HABITAT FOR:		None	
SURROUNDING LAND USE:		Second growth forest	
WETLAND FRINGE (IF PRESENT):		None	
COMMENTS			

Attachment F
USACE Upland Datasheets

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Gavin 138 kV Extension No. 2 City/County: Cheshire / Gallia Sampling Date: 10/15/2013
 Applicant/Owner: American Electric Power State: Ohio Sampling Point DP02_W01_U01
 Investigator(s): S. Bower and B. Cross Section, Township, Range: S21 / T5N / R14W
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%):
 Subregion (LRR or MLRA): N Lat.: 38.96205432 Long.: -82.16059724 Datum: WGS 84
 Soil Map Unit Name BhF NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year Yes X No (If no, explain in remarks)

Are vegetation , soil , or hydrology significantly disturbed?

Are "normal Yes

Are vegetation , soil , or hydrology naturally problematic?

circumstances" present?

(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? No
 Hydric soil present? No
 Wetland hydrology present? No

Is the sampled area within a wetland? No

Remarks:

Upland data point at edge of terrace along hillside.

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

 Surface Water (A1) True Aquatic Plants (B14)
 High Water Table (A2) Hydrogen Sulfide Odor (C1)
 Saturation (A3) Oxidized Rhizospheres on
 Water Marks (B1) Living Roots (C3)
 Sediment Deposits (B2) Presence of Reduced Iron (C4)
 Drift Deposits (B3) Recent Iron Reduction in Tilled
 Algal Mat or Crust (B4) Soils (C6)
 Iron Deposits (B5) Thin Muck Surface (C7)
 Inundation Visible on Aerial Other (Explain in Remarks)
 Imagery (B7)
 Water-Stained Leaves (B9)
 Aquatic Fauna (B13)

Secondary Indicators (minimum of two required)

 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
 Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No X Depth (inches):
 Water table present? Yes No X Depth (inches):
 Saturation present? Yes No X Depth (inches):
 (includes capillary fringe)

Wetland
hydrology
present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators present.

VEGETATION - Use scientific names of plants

Sampling Point: DP02_W01_U01

Tree Stratum Plot Size (30 ft.)					50/20 Thresholds		
		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1	<i>Pinus virginiana</i>	60	Y	UPL	Tree Stratum	12	30
2					Sapling/Shrub Stratum	6	15
3					Herb Stratum	0	0
4					Woody Vine Stratum	0	0
5							
6							
7							
8							
9							
10		60	= Total Cover		Dominance Test Worksheet		
					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)		
					Total Number of Dominant Species Across 2 (B)		
					Percent of Dominant Species that are OBL, FACW, or FAC: 0.00% (A/B)		
					Prevalence Index Worksheet		
					Total % Cover of:		
					OBL species 0 x 1 = 0		
					FAC species 0 x 2 = 0		
					FACU species 30 x 3 = 90		
					UPL species 60 x 4 = 240		
					Column totals 90 (A) 420 (B)		
					Prevalence Index = B/A = 4.67		
					Hydrophytic Vegetation Indicators:		
					___ Rapid test for hydrophytic vegetation		
					___ Dominance test is >50%		
					___ Prevalence index is ≤3.0*		
					___ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)		
					___ Problematic 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. (7.6 cm) 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 (1 m) 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? N		
Remarks: (Include photo numbers here or on a separate sheet)							

SOIL

Sampling Point: DP02_W01_U01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Dark Surface (S7)
Histic Epipedon (A2)	Polyvalue Below Surface (S8)
Black Histic (A3)	(MLRA 147, 148)
Hydrogen Sulfide (A4)	Thin Dark Surface (S9)
Stratified Layers (A5)	(MLRA 147, 148)
2 cm Muck (A10) (LRR N)	Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)
(LRR N, MLRA 147, 148)	Redox Depressions (F8)
Sandy Gleyed Matrix (S4)	Iron-Manganese Masses (F12)
Sandy Redox (S5)	Umbric Surface (F13) (MLRA 147, 148)
Stripped Matrix (S6)	Piedmont Floodplain Soils (F1)
	Red Parent Material (F21) (MLRA 147, 148)

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) **(MLRA 147)**
☐ Coast Prairie Redox (A16) **(MLRA 147, 148)**
☐ Piedmont Floodplain Soils (F19)
☐ **(MLRA 136, 147)**
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: Rock and tree roots
Depth (inches): 10"

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Gavin 138 kV Extension No. 2 City/County: Cheshire / Gallia Sampling Date: 10/15/2013
 Applicant/Owner: American Electric Power State: Ohio Sampling Point DP04_W02_U02
 Investigator(s): S. Bower and B. Cross Section, Township, Range: S20 / T5N / R14W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 10
 Subregion (LRR or MLRA): N Lat.: 38.96152808 Long.: -82.16046177 Datum: WGS 84
 Soil Map Unit Name GwE NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year Yes X No (If no, explain in remarks)

Are vegetation , soil , or hydrology significantly disturbed?

Are "normal Yes

Are vegetation , soil , or hydrology naturally problematic?

circumstances" present?

(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? No
 Hydric soil present? No
 Wetland hydrology present? No

Is the sampled area within a wetland? No

Remarks:

Data point along hillslope upslope from wetland.

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

 Surface Water (A1) True Aquatic Plants (B14)
 High Water Table (A2) Hydrogen Sulfide Odor (C1)
 Saturation (A3) Oxidized Rhizospheres on
 Water Marks (B1) Living Roots (C3)
 Sediment Deposits (B2) Presence of Reduced Iron (C4)
 Drift Deposits (B3) Recent Iron Reduction in Tilled
 Algal Mat or Crust (B4) Soils (C6)
 Iron Deposits (B5) Thin Muck Surface (C7)
 Inundation Visible on Aerial Other (Explain in Remarks)
 Imagery (B7)
 Water-Stained Leaves (B9)
 Aquatic Fauna (B13)

Secondary Indicators (minimum of two required)

 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
 Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No X Depth (inches):
 Water table present? Yes No X Depth (inches):
 Saturation present? Yes No X Depth (inches):
 (includes capillary fringe)

Wetland
hydrology
present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators present.

VEGETATION - Use scientific names of plants
Sampling Point: DP04_W02_U02

Tree Stratum Plot Size (30 ft.)					50/20 Thresholds		
		Absolute % Cover	Dominant Species	Indicator Status		20%	50%
1	<i>Acer rubrum</i>	40	Y	FAC	Tree Stratum	16	40
2	<i>Liriodendron tulipifera</i>	20	Y	FACU	Sapling/Shrub Stratum	14	35
3	<i>Sassafras albidum</i>	20	Y	FACU	Herb Stratum	0	0
4					Woody Vine Stratum	0	0
5					Dominance Test Worksheet Number of Dominant Species that are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant Species Across <u>6</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>33.33%</u> (A/B)		
6							
7							
8							
9							
10							
		80	= Total Cover				
Sapling/Shrub Stratum Plot Size (15 ft.)					Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> <u>30</u> x 2 = <u>60</u> FAC species <u>40</u> x 3 = <u>120</u> FACU species <u>80</u> x 4 = <u>320</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>150</u> (A) <u>500</u> (B) Prevalence Index = B/A = <u>3.33</u>		
1	<i>Ulmus americana</i>	30	Y	FACW			
2	<i>Acer saccharum</i>	20	Y	FACU			
3	<i>Liriodendron tulipifera</i>	20	Y	FACU			
4							
5							
6							
7							
8							
9							
10							
		70	= Total Cover				
Herb Stratum Plot Size (5 ft.)					Hydrophytic Vegetation Indicators: ☐ Rapid test for hydrophytic vegetation ☐ Dominance test is >50% ☐ Prevalence index is ≤3.0* ☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) ☐ Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic		
1							
2							
3							
4							
5							
6							
7							
8							
9							
10							
11							
12							
13							
14							
15							
		0	= Total Cover				
Woody Vine Stratum Plot Size (30 ft.)					Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) 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 (1 m) 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.		
1							
2							
3							
4							
5							
		0	= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet)					Hydrophytic vegetation present? <u>N</u>		

SOIL
Sampling Point: DP04_W02_U02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-18	10YR 4/3	90	10YR 5/6	5	C	M	sandy loam	
			10YR 5/8	5	C	M	sandy loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|--|
| ☐ Histisol (A1) | ☐ Dark Surface (S7) |
| ☐ Histic Epipedon (A2) | ☐ Polyvalue Below Surface (S8) |
| ☐ Black Histic (A3) | ☐ (MLRA 147, 148) |
| ☐ Hydrogen Sulfide (A4) | ☐ Thin Dark Surface (S9) |
| ☐ Stratified Layers (A5) | ☐ (MLRA 147, 148) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ (LRR N, MLRA 147, 148) | ☐ Redox Depressions (F8) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Redox (S5) | ☐ Umbric Surface (F13) (MLRA 136, 122) |
| ☐ Stripped Matrix (S6) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| | ☐ Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (Explain in Remarks) |

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

 Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Gavin 138 kV Extension No. 2 City/County: Cheshire / Gallia Sampling Date: 10/15/2013
 Applicant/Owner: American Electric Power State: Ohio Sampling Point DP05_U03
 Investigator(s): S. Bower and B Cross Section, Township, Range: S14 / T5N / R14W
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0
 Subregion (LRR or MLRA): N Lat.: 38.95609588 Long.: -82.14823274 Datum: WGS 84
 Soil Map Unit Name PnD NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year Yes X No (If no, explain in remarks)

Are vegetation , soil , or hydrology significantly disturbed?

Are "normal Yes

Are vegetation , soil , or hydrology naturally problematic?

circumstances" present?

(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Yes
 Hydric soil present? No
 Wetland hydrology present? No

Is the sampled area within a wetland? No

Remarks:

Upland data point adjacent to a dirt access road.

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

 Surface Water (A1) True Aquatic Plants (B14)
 High Water Table (A2) Hydrogen Sulfide Odor (C1)
 Saturation (A3) Oxidized Rhizospheres on
 Water Marks (B1) Living Roots (C3)
 Sediment Deposits (B2) Presence of Reduced Iron (C4)
 Drift Deposits (B3) Recent Iron Reduction in Tilled
 Algal Mat or Crust (B4) Soils (C6)
 Iron Deposits (B5) Thin Muck Surface (C7)
 Inundation Visible on Aerial Other (Explain in Remarks)
 Imagery (B7)
 Water-Stained Leaves (B9)
 Aquatic Fauna (B13)

Secondary Indicators (minimum of two required)

 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
 Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No X Depth (inches):
 Water table present? Yes No X Depth (inches):
 Saturation present? Yes No X Depth (inches):
 (includes capillary fringe)

Wetland
hydrology
present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators present.

VEGETATION - Use scientific names of plants

Sampling Point: DP05_U03

Tree Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
							0	= Total Cover		
Sapling/Shrub Stratum					Plot Size (15 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Equisetum hyemale</i>						70	Y	FACW	
2	<i>Eupatorium perfoliatum</i>						20	Y	FACW	
3	<i>Solidago canadensis</i>						20	Y	FACU	
4										
5										
6										
7										
8										
9										
10										
							110	= Total Cover		
Herb Stratum					Plot Size (5 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
							0	= Total Cover		
Woody Vine Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
							0	= Total Cover		

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	22	55
Herb Stratum	0	0
Woody Vine Stratum	0	0

Dominance Test Worksheet

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

Total Number of Dominant Species Across 3 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 66.67% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
	90	x 2 =	180
FAC species	0	x 3 =	0
FACU species	20	x 4 =	80
UPL species	0	x 5 =	0
Column totals	110 (A)		260 (B)
Prevalence Index = B/A =			2.36

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ Prevalence index is ≤3.0*

☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic 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. (7.6 cm) 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 (1 m) 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? Y

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

SOIL

Sampling Point: DP05_U03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | | | |
|--|-----------------------------------|--|------------------------|
| | | Dark Surface (S7) | |
| | Histisol (A1) | Polyvalue Below Surface (S8) | 2 cm Muck |
| | Histic Epipedon (A2) | (MLRA 147, 148) | Coastal Prairie |
| | Black Histic (A3) | Thin Dark Surface (S9) | Piedmont |
| | Hydrogen Sulfide (A4) | (MLRA 147, 148) | (MLRA 147, 148) |
| | Stratified Layers (A5) | Loamy Gleyed Matrix (F2) | Very Shallow |
| | 2 cm Muck (A10) (LRR N) | Depleted Matrix (F3) | Other (Ex) |
| | Depleted Below Dark Surface (A11) | Redox Dark Surface (F6) | |
| | Thick Dark Surface (A12) | Depleted Dark Surface (F7) | |
| | Sandy Mucky Mineral (S1) | Redox Depressions (F8) | |
| | (LRR N, MLRA 147, 148) | Iron-Manganese Masses (F12) (LRR N, MLRA 136) | |
| | Sandy Gleyed Matrix (S4) | Umbric Surface (F13) (MLRA 136, 122) | |
| | Sandy Redox (S5) | Piedmont Floodplain Soils (F19) (MLRA 148) | |
| | Stripped Matrix (S6) | Red Parent Material (F21) (MLRA 127, 147) | |

Indicators for Problematic Hydric Soils:

- 2 cm Muck (A10) (**MLRA 147**)
Coast Prairie Redox (A16) (**MLRA 147, 148**)
Piedmont Floodplain Soils (F19)
(**MLRA 136, 147**)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Gavin 138 kV Extension No. 2 City/County: Cheshire / Gallia Sampling Date: 10/16/2013
 Applicant/Owner: American Electric Power State: Ohio Sampling Point DP07 W03 U04
 Investigator(s): S. Bowe and B. Cross Section, Township, Range: S14 / T5N / R14W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 15
 Subregion (LRR or MLRA): N Lat.: 38.95904528 Long.: -82.15647985 Datum: WGS 84
 Soil Map Unit Name GwE NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year Yes X No (If no, explain in remarks)

Are vegetation , soil , or hydrology significantly disturbed?

Are "normal Yes

Are vegetation , soil , or hydrology naturally problematic?

circumstances" present?

(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? No
 Hydric soil present? No
 Wetland hydrology present? No

Is the sampled area within a wetland? No

Remarks:

Data point along hillslope

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

 Surface Water (A1) True Aquatic Plants (B14)
 High Water Table (A2) Hydrogen Sulfide Odor (C1)
 Saturation (A3) Oxidized Rhizospheres on
 Water Marks (B1) Living Roots (C3)
 Sediment Deposits (B2) Presence of Reduced Iron (C4)
 Drift Deposits (B3) Recent Iron Reduction in Tilled
 Algal Mat or Crust (B4) Soils (C6)
 Iron Deposits (B5) Thin Muck Surface (C7)
 Inundation Visible on Aerial Other (Explain in Remarks)
 Imagery (B7)
 Water-Stained Leaves (B9)
 Aquatic Fauna (B13)

Secondary Indicators (minimum of two required)

 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
 Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No X Depth (inches):
 Water table present? Yes No X Depth (inches):
 Saturation present? Yes No X Depth (inches):
 (includes capillary fringe)

**Wetland
hydrology
present?** N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators present.

VEGETATION - Use scientific names of plants

Sampling Point: DP07_W03_U04

Tree Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Acer rubrum</i>				50	Y	FAC			
2	<i>Ulmus rubra</i>				30	Y	FAC			
3	<i>Asimina triloba</i>				20	Y	FAC			
4										
5										
6										
7										
8										
9										
10										
					100	= Total Cover				
Sapling/Shrub Stratum					Plot Size (15 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Acer rubrum</i>				20	Y	FAC			
2	<i>Acer saccharum</i>				20	Y	FACU			
3	<i>Ulmus rubra</i>				20	Y	FAC			
4	<i>Rosa multiflora</i>				20	Y	FACU			
5										
6										
7										
8										
9										
10										
					80	= Total Cover				
Herb Stratum					Plot Size (5 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Ageratina altissima</i>				20	Y	FACU			
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
					20	= Total Cover				
Woody Vine Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
					0	= Total Cover				

50/20 Thresholds

	20%	50%
Tree Stratum	20	50
Sapling/Shrub Stratum	16	40
Herb Stratum	4	10
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across: 8 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 62.50% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
	0	x 2 =	0
FAC species	140	x 3 =	420
FACU species	60	x 4 =	240
UPL species	0	x 5 =	0
Column totals	200 (A)		660 (B)
Prevalence Index = B/A =			3.30

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☐ Prevalence index is ≤3.0*

☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic 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. (7.6 cm) 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 (1 m) 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? Y

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

SOIL

Sampling Point: DP07_W03_U04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

Histosol (A1)	Dark Surface (S7)
Histic Epipedon (A2)	Polyvalue Below Surface (S8)
Black Histic (A3)	(MLRA 147, 148)
Hydrogen Sulfide (A4)	Thin Dark Surface (S9)
Stratified Layers (A5)	(MLRA 147, 148)
2 cm Muck (A10) (LRR N)	Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)
Thick Dark Surface (A12)	Redox Dark Surface (F6)
Sandy Mucky Mineral (S1)	Depleted Dark Surface (F7)
(LRR N, MLRA 147, 148)	Redox Depressions (F8)
Sandy Gleyed Matrix (S4)	Iron-Manganese Masses (F12)
Sandy Redox (S5)	Umbric Surface (F13) (MLRA 147, 148)
Stripped Matrix (S6)	Piedmont Floodplain Soils (F1)
	Red Parent Material (F21) (MLRA 147, 148)

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) (**MLRA 147**)
☐ Coast Prairie Redox (A16) (**MLRA 147, 148**)
☐ Piedmont Floodplain Soils (F19)
☐ (**MLRA 136, 147**)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type:

Depth (inches): _____

Hydric soil present? N

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Gavin 138 kV Extension No. 2 City/County: Cheshire / Gallia Sampling Date: 10/16/2013
 Applicant/Owner: American Electric Power State: Ohio Sampling Point DP09_W04_U05
 Investigator(s): S. Bower and B. Cross Section, Township, Range: S20 / T5N / R14W
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%):
 Subregion (LRR or MLRA): N Lat.: 38.95937092 Long.: -82.15836041 Datum: WGS 84
 Soil Map Unit Name BhF NWI Classification: Upland

Are climatic/hydrologic conditions of the site typical for this time of the year Yes X No (If no, explain in remarks)

Are vegetation , soil , or hydrology significantly disturbed?

Are "normal Yes

Are vegetation , soil , or hydrology naturally problematic?

circumstances" present?

(If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? Yes
 Hydric soil present? No
 Wetland hydrology present? No

Is the sampled area within a wetland? No

Remarks:

Upland data point

HYDROLOGY**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one is required; check all that apply)

 Surface Water (A1) True Aquatic Plants (B14)
 High Water Table (A2) Hydrogen Sulfide Odor (C1)
 Saturation (A3) Oxidized Rhizospheres on
 Water Marks (B1) Living Roots (C3)
 Sediment Deposits (B2) Presence of Reduced Iron (C4)
 Drift Deposits (B3) Recent Iron Reduction in Tilled
 Algal Mat or Crust (B4) Soils (C6)
 Iron Deposits (B5) Thin Muck Surface (C7)
 Inundation Visible on Aerial Other (Explain in Remarks)
 Imagery (B7)
 Water-Stained Leaves (B9)
 Aquatic Fauna (B13)

Secondary Indicators (minimum of two required)

 Surface Soil Cracks (B6)
 Sparsely Vegetated Concave Surface (B8)
 Drainage Patterns (B10)
 Moss Trim Lines (B16)
 Dry-Season Water Table (C2)
 Crayfish Burrows (C8)
 Saturation Visible on Aerial Imagery (C9)
 Stunted or Stressed Plants (D1)
 Geomorphic Position (D2)
 Shallow Aquitard (D3)
 Microtopographic Relief (D4)
 FAC-Neutral Test (D5)

Field Observations:

Surface water present? Yes No X Depth (inches):
 Water table present? Yes No X Depth (inches):
 Saturation present? Yes No X Depth (inches):
 (includes capillary fringe)

Wetland
hydrology
present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrologic indicators.

VEGETATION - Use scientific names of plants
Sampling Point: DP09_W04_U05

Tree Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Acer rubrum</i>				50	Y	FAC			
2	<i>Ulmus americana</i>				30	Y	FACW			
3										
4										
5										
6										
7										
8										
9										
10										
					80	= Total Cover				
Sapling/Shrub Stratum					Plot Size (15 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Acer rubrum</i>				25	Y	FAC			
2	<i>Quercus prinus</i>				20	Y	UPL			
3	<i>Sassafras albidum</i>				20	Y	FACU			
4										
5										
6										
7										
8										
9										
10										
					65	= Total Cover				
Herb Stratum					Plot Size (5 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
					0	= Total Cover				
Woody Vine Stratum					Plot Size (30 ft.)			Absolute % Cover	Dominant Species	Indicator Status
1										
2										
3										
4										
5										
					0	= Total Cover				

50/20 Thresholds

	20%	50%
Tree Stratum	16	40
Sapling/Shrub Stratum	13	33
Herb Stratum	0	0
Woody Vine Stratum	0	0

Dominance Test Worksheet

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

Total Number of Dominant Species Across: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 60.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	30	x 2 =	60
FAC species	75	x 3 =	225
FACU species	20	x 4 =	80
UPL species	20	x 5 =	100
Column totals	145	(A)	465 (B)
Prevalence Index = B/A =			3.21

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☐ Prevalence index is ≤3.0*

☐ Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

☐ Problematic 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. (7.6 cm) 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 (1 m) 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? Y

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

SOIL
Sampling Point: DP09_W04_U05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (Inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type*	Loc**		
0-8	10YR 3/3	100					sandy loam	
8-18	10YR 3/3	80	10 YR 5/8	20	C	M	sandy loam	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

- | | |
|--|--|
| ☐ Histisol (A1) | ☐ Dark Surface (S7) |
| ☐ Histic Epipedon (A2) | ☐ Polyvalue Below Surface (S8) |
| ☐ Black Histic (A3) | ☐ (MLRA 147, 148) |
| ☐ Hydrogen Sulfide (A4) | ☐ Thin Dark Surface (S9) |
| ☐ Stratified Layers (A5) | ☐ (MLRA 147, 148) |
| ☐ 2 cm Muck (A10) (LRR N) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Depleted Below Dark Surface (A11) | ☐ Depleted Matrix (F3) |
| ☐ Thick Dark Surface (A12) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Dark Surface (F7) |
| ☐ (LRR N, MLRA 147, 148) | ☐ Redox Depressions (F8) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Iron-Manganese Masses (F12) (LRR N, MLRA 136) |
| ☐ Sandy Redox (S5) | ☐ Umbric Surface (F13) (MLRA 136, 122) |
| ☐ Stripped Matrix (S6) | ☐ Piedmont Floodplain Soils (F19) (MLRA 148) |
| | ☐ Red Parent Material (F21) (MLRA 127, 147) |

Indicators for Problematic Hydric Soils:

- | |
|--|
| ☐ 2 cm Muck (A10) (MLRA 147) |
| ☐ Coast Prairie Redox (A16) (MLRA 147, 148) |
| ☐ Piedmont Floodplain Soils (F19) |
| ☐ (MLRA 136, 147) |
| ☐ Very Shallow Dark Surface (TF12) |
| ☐ Other (Explain in Remarks) |

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

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

 Hydric soil present? N

Remarks:

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in

Case No(s). 13-2412-EL-BLN

Summary: Letter of Notification Gavin 138kV Extension No. 2 Relocation Project (Part 4 of 4)
electronically filed by Mr. Yazen Alami on behalf of Ohio Power Company