

SOIL

Sampling Point: RA-WET

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 ¹	Loc ²		
1/2-3	10YR 3/3	100	-	-	-	-	SL	all mine tailings
3-7	10YR 4/3	90	10YR 5A	4	C	M		all mine tailings
7-12	10YR 4/3	90	10YR 5/6	10	C	M		chunks of sandstone, 10YR 6/8
12+								impenetrable sandstone
1/2"	10YR 2/2	100						thin film of organic matter

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- 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)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: Sandstone
 Depth (inches): 12"

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: AEP CONESVILLE City/County: Conesville/Coshocton Sampling Date: 6/20/13
Applicant/Owner: AEP State: OH Sampling Point: R1-UP
Investigator(s): MAD, NT, LK Section, Township, Range: S12 T4N R6W
Landform (hillslope, terrace, etc.): Local relief (concave, convex, none): Convex Slope (%): 0-2
Subregion (LRR or MLRA): LRR N Lat: 40.193292 Long: -81.857910 Datum: NGS84
Soil Map Unit Name: BHF (Bethesda channely silt loam) NWI classification: NONE
Are climatic / hydrologic conditions on the site typical for this time of year? Yes [checked] No
Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes [checked] No
Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes ___ No [checked]
Hydric Soil Present? Yes ___ No [checked]
Wetland Hydrology Present? Yes ___ No [checked]
Is the Sampled Area within a Wetland? Yes ___ No [checked]
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) ___ True Aquatic Plants (B14) ___ Surface Soil Cracks (B6) ___
High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Sparsely Vegetated Concave Surface (B8) ___
Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Drainage Patterns (B10) ___
Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Moss Trim Lines (B16) ___
Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Dry-Season Water Table (C2) ___
Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Crayfish Burrows (C8) ___
Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Saturation Visible on Aerial Imagery (C9) ___
Iron Deposits (B5) ___ Stunted or Stressed Plants (D1) ___
Inundation Visible on Aerial Imagery (B7) ___ Geomorphic Position (D2) ___
Water-Stained Leaves (B9) ___ Shallow Aquitard (D3) ___
Aquatic Fauna (B13) ___ FAC-Neutral Test (D5) ___

Field Observations:
Surface Water Present? Yes ___ No [checked] Depth (inches): ___
Water Table Present? Yes ___ No [checked] Depth (inches): ___
Saturation Present? (includes capillary fringe) Yes ___ No ___ Depth (inches): ___
Wetland Hydrology Present? Yes ___ No [checked]

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

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: R1-UP

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Fagus gran</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
2. <u>Prun sero</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
3. <u>Acer rubr</u>	<u>8</u>	<u>N</u>	<u>FACU</u>
4. <u>Liri tulii</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
5. <u>Rubi pseu</u>	<u>8</u>	<u>N</u>	<u>FACU</u>
6. <u>Acer sacc</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>
7. <u>Plat occi</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>

86 = Total Cover
 50% of total cover: 43 20% of total cover: 8.6

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rosa multi</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
2. <u>Ulmus amer</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			

40 = Total Cover
 50% of total cover: 20 20% of total cover: 4

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rubus occi</u>	<u>5</u>	<u>Y</u>	<u>NL</u>
2. <u>Ager alt</u>	<u>1</u>	<u>N</u>	<u>FACW</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

6 = Total Cover
 50% of total cover: 3 20% of total cover: 1.2

Woody Vine Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Toxicaria</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
2. <u>Rubus flag</u>	<u>25</u>	<u>Y</u>	<u>FACW</u>
3. <u>Rubus flag</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
4. <u>Pers virg</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
5. <u>Osmo clay</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
<u>Pile pium</u>	<u>5</u>	<u>N</u>	<u>FACW</u>

58 = Total Cover
 50% of total cover: 29 20% of total cover: 11.6

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 9 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by:

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is $\leq 3.0^1$
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No

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

SOIL

Sampling Point: R1-UP

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 ¹	Loc ²		
0-3	10YR 3/3	100	—	—	—	—	SL	disturbed fill
3-10	10YR 4/3	95	10YR 5/2	5	C	M	SL	
10-14+	10YR 5/2	100	—	—	—	—	LSw	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:
 Situated b/w R1 & R3 on a mound

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP Conesville City/County: Conesville/Cashcocks Sampling Date: 6/20/13
 Applicant/Owner: AEP State: OH Sampling Point: S1-WET
 Investigator(s): MAD, LS, BM, LK, NH Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): Slope toward ditch Local relief (concave, convex, none): convex Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N Lat: 40.193959 Long: -81.859843 Datum: WGS84
 Soil Map Unit Name: Ug (Udorthents) NWI classification: NONE
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>3</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>-8</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>-4"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>roadside ditch + seep</u>	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: S1-WET

Tree Stratum (Plot size: 30)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

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: 66.6 (A/B)

Sapling/Shrub Stratum (Plot size: 15)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>40</u>	x 1 = <u>40</u>
FACW species <u>41</u>	x 2 = <u>82</u>
FAC species <u>30</u>	x 3 = <u>90</u>
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: <u>111</u> (A)	<u>212</u> (B)

Prevalence Index = B/A = 1.91

Herb Stratum (Plot size: 5)

	Absolute % Cover	Dominant Species?	Indicator Status
1.	<u>10</u>	<u>N</u>	<u>FACU</u>
2.	<u>30</u>	<u>Y</u>	<u>FACW</u>
3.	<u>3</u>	<u>N</u>	<u>FACW</u>
4.	<u>2</u>	<u>N</u>	<u>OBL</u>
5.	<u>20</u>	<u>Y</u>	<u>FACU</u>
6.	<u>10</u>	<u>N</u>	<u>OBL</u>
7.	<u>2</u>	<u>N</u>	<u>OBL</u>
8.	<u>1</u>	<u>N</u>	<u>OBL</u>
9.	<u>3</u>	<u>N</u>	<u>FACW</u>
10.	<u>25</u>	<u>Y</u>	<u>OBL</u>
11.	<u>5</u>	<u>N</u>	<u>FACW</u>

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: 5)

	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

also Symphyotrichum novae-angliae (FACW)

SOIL

Sampling Point: S4-WFT

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 ¹	Loc ²		
0-2	10YR 5/2	100	—	—	—	—	SL	
2-10	10YR 4/1	98	10YR 4/0	2	C	M	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)
	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: stone
 Depth (inches): 10"

Hydric Soil Present? Yes No

Remarks:
highly disturbed, fill

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP Conesville City/County: Conesville/Coshocton Sampling Date: 10/20/13
 Applicant/Owner: AEP State: OH Sampling Point: S1-UP
 Investigator(s): MAD, LS, BM, LK, NH Section, Township, Range: S12 T4 N R6W
 Landform (hillslope, terrace, etc.): slope Local relief (concave, convex, none): slope Slope (%): 1-2
 Subregion (LRR or MLRA): LRR N Lat: 40.193848 Long: -81.859883 Datum: WGS84
 Soil Map Unit Name: Ug (udochents) NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>13"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: S1-UP

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Popul delt</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
2. <u>Ulmus amer</u>	<u>10</u>	<u>N</u>	<u>FACW</u>
3. <u>Pinus stro</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
4. <u>Frax penn</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
5.			
6.			
7.			

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)

50% of total cover: 27.5 20% of total cover: 11

55 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Elae umbel</u>	<u>20</u>	<u>Y</u>	<u>NL</u>
2. <u>Acer negun</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>
3. <u>Rubus ox</u>	<u>2</u>	<u>N</u>	<u>NL</u>
4.			
5.			
6.			
7.			
8.			
9.			

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by:

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

50% of total cover: 110 20% of total cover: 42.4

32 = Total Cover

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lotus corn</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>
2. <u>Fest arun</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
3. <u>Plant rugel</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
4. <u>Plant lanc</u>	<u>1</u>	<u>N</u>	<u>UPL</u>
5. <u>Trif prat</u>	<u>5</u>	<u>N</u>	<u>FACU</u>
6. <u>Senec aure</u>	<u>2</u>	<u>N</u>	<u>NL</u>
7. <u>Frag virg</u>	<u>1</u>	<u>N</u>	<u>FACU</u>
8. <u>Trif proc</u>	<u>3</u>	<u>N</u>	<u>NL</u>
9. <u>Achi mill</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
10. <u>Gall trifl</u>	<u>1</u>	<u>N</u>	<u>FACU</u>
11. <u>Poa triv</u>	<u>1</u>	<u>N</u>	<u>FACW</u>
<u>Onoc sens (1)</u>		<u>N</u>	<u>FACW</u>
<u>Equi hysc (1)</u>		<u>N</u>	<u>FACW</u>

50% of total cover: 25.5 20% of total cover: 10.2

51 = Total Cover

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is $\leq 3.0^1$

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

_____ = Total Cover

50% of total cover: _____ 20% of total cover: _____

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes _____ No

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

SOIL

Sampling Point: S4-UP

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 ¹	Loc ²		
0-2.5	10YR 4/3	100	—	—	—	—	Sl	
2.5-8	10YR 4/2	99	10YR 5/6	1	C	M	Sc	coal & stone
8-14	10YR 5/3	97	10YR 7/4	3	C	M	Sc	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- Hydric Soil Indicators:**
- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5)
 - 2 cm Muck (A10) (LRR N)
 - Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
 - Sandy Gleyed Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Dark Surface (S7)
 - Polyvalue Below Surface (S8) (MLRA 147, 148)
 - Thin Dark Surface (S9) (MLRA 147, 148)
 - Loamy Gleyed Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)
 - Iron-Manganese Masses (F12) (LRR N, MLRA 136)
 - Umbric Surface (F13) (MLRA 136, 122)
 - Piedmont Floodplain Soils (F19) (MLRA 148)
 - Red Parent Material (F21) (MLRA 127, 147)
- Indicators for Problematic Hydric Soils³:**
- 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)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: stone

Depth (inches): 8"

Hydric Soil Present? Yes No

Remarks:

disturbed fill
saturation @ 13"

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP - Spts Mine Lands City/County: Coshacton Sampling Date: 7/8/13
 Applicant/Owner: AEP State: OH Sampling Point: T1 - Wet
 Investigator(s): LS, JA, LK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave Slope (%): 2-3
 Subregion (LRR or MLRA): N Lat: 40.191204 Long: -81.862264 Datum: WGS 84
 Soil Map Unit Name: Wob NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <input checked="" type="checkbox"/> Surface Water (A1)* <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) _____ Water Marks (B1) _____ Sediment Deposits (B2) _____ Drift Deposits (B3) _____ Algal Mat or Crust (B4) _____ Iron Deposits (B5) _____ Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13)	<p><u>Secondary Indicators (minimum of two required)</u></p> _____ 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)
<p>Field Observations:</p> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>-1"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0 (surface)</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <p style="font-size: 1.2em;">*w/ in 5ft of plot center, Max water dept 15"</p>	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: T-1 wet

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Ulmus amer</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. <u>Frax penn</u>	<u>7</u>	<u>N</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
3. <u>Acer rubr</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)
4. <u>Sassafras</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. _____				
6. _____				
7. _____				
<u>52</u> = Total Cover 50% of total cover: <u>26</u> 20% of total cover: <u>11</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Ulmus amer</u>	<u>8</u>	<u>Y</u>	<u>FACW</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Rosa multi</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Lind benz</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Elaeagn umb</u>	<u>3</u>	<u>N</u>	<u>NL</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. _____				
7. _____				
8. _____				
9. _____				
<u>26</u> = Total Cover 50% of total cover: <u>13</u> 20% of total cover: <u>8</u>				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Four Vegetation Strata:
1. <u>Frax penn</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. <u>Aqui pan</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
3. <u>Lycop amer</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. <u>Toxi radi</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	Woody vine – All woody vines greater than 3.28 ft in height.
5. <u>Impa cape</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
6. <u>Leersia virg (whitegrass)</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
7. <u>Rosa multi</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
8. _____				
9. _____				
10. _____				
11. _____				
<u>30</u> = Total Cover 50% of total cover: <u>15</u> 20% of total cover: <u>6</u>				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Toxi radi</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Parth quince</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>	
3. _____				
4. _____				
5. _____				
<u>7</u> = Total Cover 50% of total cover: <u>4</u> 20% of total cover: <u>2</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: T1-Wet

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 ¹	Loc ²		
0-2.5"	10YR 3/2	100	-	-	-	-	SL	
2.5-6.5	10YR 5/1	75	5YR 4/6	25	C	M	Sandy loam	
6.5-16	10YR 6/1	65	7.5YR 4/6	35	C	M	Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | |
|--|---|--|
| <p>Hydric Soil Indicators:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) | <ul style="list-style-type: none"> <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | <p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) |
|--|---|--|

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP Spts Mine lands City/County: Coshocton Sampling Date: 7/8/13
 Applicant/Owner: AEP State: OH Sampling Point: T1-Up
 Investigator(s): LS, JAW Section, Township, Range: S12 T4N RGW
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): N Lat: 40.191158 Long: -81.862537 Datum: WGS 84
 Soil Map Unit Name: waB NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

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

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: T1-UP

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Ulmus Amer</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across All Strata: <u>9</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>44%</u> (A/B)
2. <u>Rubus coccineus</u>	<u>18</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Fragaria virginiana</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>	
4. <u>Acer rubr</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
5. <u>Prun serot</u>	<u>19</u>	<u>N</u>	<u>FACU</u>	
6. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
50% of total cover: <u>49</u> <u>98</u> = Total Cover 20% of total cover: <u>19.6</u>				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ulmus Amer</u>	<u>7</u>	<u>N</u>	<u>FACW</u>	
2. <u>Fragaria</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Fragaria umb</u>	<u>10</u>	<u>N</u>	<u>NL</u>	
4. <u>Lind benz</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
50% of total cover: <u>27.5</u> <u>59</u> = Total Cover 20% of total cover: <u>11.8</u>				
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Allia petio</u>	<u>7</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Faith quince</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Quercus cana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Fagus gran</u>	<u>1</u>	<u>N</u>	<u>FACU</u>	
5. <u>Fragaria</u>	<u>5</u>	<u>N</u>	<u>NL</u>	
6. <u>Acer rubr</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
7. <u>Rosa multi</u>	<u>7</u>	<u>N</u>	<u>FACU</u>	
8. <u>Galium circ</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
9. <u>Galium triflorum</u>	<u>2</u>	<u>N</u>	<u>FACU</u>	
10. <u>Fragaria umb</u>	<u>2</u>	<u>N</u>	<u>NL</u>	
11. _____	_____	_____	_____	
50% of total cover: <u>26</u> <u>52</u> = Total Cover 20% of total cover: <u>10.4</u>				
Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Toxicaria</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
50% of total cover: <u>5</u> <u>10</u> = Total Cover 20% of total cover: <u>2</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: T1-4p

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 ¹	Loc ²		
0-8	10YR 4/3	100	—	—	—	—	SL	
8-10	10YR 4/3	98	10YR 5/8	2	C	M	SL	
10-16+	10YR 5/2	90	7.5YR 4/6	10	C	M	Sandy loam	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

Restrictive Layer (if observed):
 Type: N/A
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP - Spts City/County: Cornesville, Coshocton Sampling Date: 7/8/13
 Applicant/Owner: AEP State: OH Sampling Point: U1-Wet
 Investigator(s): JA, LS, CK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave Slope (%): 1-3
 Subregion (LRR or MLRA): N Lat: 40.191071 Long: -81.863134 Datum: WGS 84
 Soil Map Unit Name: WaB NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) <input checked="" type="checkbox"/> Surface Water (A1)* <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u><1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>-1/2"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0 (surface)</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____

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

Remarks: * w/in SA of plot

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: U1-Wet

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Quercus bicolor</u>	<u>7</u>	<u>N</u>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. <u>Acer rubrum</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>Rubus rubra</u>	<u>10</u>	<u>N</u>	<u>FACW</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.6%</u> (A/B)
4. <u>Jugl. nigr.</u>	<u>3</u>	<u>N</u>	<u>FACW</u>	
5. <u>Dios. virg.</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
6. _____				
7. _____				
70 = Total Cover				
50% of total cover: <u>35</u> 20% of total cover: <u>14</u>				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Acer rubrum</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Corylus americana</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	OBL species <u>0</u> x 1 = <u>0</u>
3. <u>Rosa multiflora</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	FACW species <u>3</u> x 2 = <u>6</u>
4. <u>Dios. virg.</u>	<u>9</u>	<u>N</u>	<u>FAC</u>	FAC species <u>7</u> x 3 = <u>21</u>
5. _____				FACW species <u>7</u> x 4 = <u>28</u>
6. _____				UPL species <u>0</u> x 5 = <u>0</u>
7. _____				Column Totals: <u>17</u> (A) <u>55</u> (B)
8. _____				Prevalence Index = B/A = _____
9. _____				
45 = Total Cover				
50% of total cover: <u>23</u> 20% of total cover: <u>9</u>				
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Tox. rad.</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Parn. quinque</u>	<u>10</u>	<u>Y</u>	<u>EKW</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Oxalis stricta</u>	<u>1</u>	<u>N</u>	<u>FACW</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹
4. <u>Liatris</u>	<u>7</u>	<u>N</u>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. <u>Onoc. sensu</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
6. <u>Parn. quinque</u>	<u>4</u>	<u>N</u>	<u>FACW</u>	
7. <u>Galium triflorum</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	
8. _____				
9. _____				
10. _____				
11. _____				
36 = Total Cover				
50% of total cover: <u>18</u> 20% of total cover: <u>8</u>				
Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Four Vegetation Strata:
1. <u>Parn. quinque</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2. <u>Tox. rad.</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
3. _____				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. _____				Woody vine – All woody vines greater than 3.28 ft in height.
5. _____				
6 = Total Cover				
50% of total cover: <u>3</u> 20% of total cover: <u>2</u>				
Remarks: (Include photo numbers here or on a separate sheet.)				
				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

SOIL

Sampling Point: US-Wat

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 ¹	Loc ²		
0-7	10YR 2/1	100	—	—	—	—	loamy muck	primarily muck-g
7-10	10YR 3/2	100	—	—	—	—	loamy muck	essiy
10-16+	10YR 4/2	97	10YR 4/6	3	C*	M	Sandy loam	*very faint

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- 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)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region 7/8/13

Project/Site: AEP - Spts Mine Lands City/County: Cokesville/Coshocton Sampling Date: UL - Up
 Applicant/Owner: AEP State: OH Sampling Point: _____
 Investigator(s): SA, LS, LK Section, Township, Range: T4N R6W S12
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Convex Slope (%): 1-2
 Subregion (LRR or MLRA): LRR N Lat: _____ Long: _____ Datum: WGS 84
 Soil Map Unit Name: WaB NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ 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)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
saturation > 16"

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: U1-UP

Tree Stratum (Plot size: 30')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>FLAX PLUM</u>	<u>5</u>	<u>N</u>	<u>FACW</u>
2. <u>DIOS VIRG</u>	<u>15</u>	<u>N</u>	<u>FAC</u>
3. <u>ACER RUBRUM</u>	<u>35</u>	<u>Y</u>	<u>FAC</u>
4. <u>OVER RIVER</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>
5.			
6.			
7.			

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 57.14 (A/B)

50% of total cover: 37.5 = Total Cover 75 20% of total cover: 15

Sapling/Shrub Stratum (Plot size: 15')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>DIOS VIRG</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>
2. <u>LIND BERTZ</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>
3. <u>LIGU VIRG</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
4. <u>ELDAG (RUSSIAN) UMBRE</u>	<u>5</u>	<u>N</u>	<u>NL</u>
5.			
6.			
7.			
8.			
9.			

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by: _____

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

50% of total cover: 22.5 = Total Cover 45 20% of total cover: 9

Herb Stratum (Plot size: 5')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>PARTH QUINCE</u>	<u>18</u>	<u>Y</u>	<u>FACU</u>
2. <u>ROSA MULTA</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
3. <u>TOXI RADI</u>	<u>5</u>	<u>N</u>	<u>FAC</u>
4. <u>EUPA RINGO</u>	<u>2</u>	<u>N</u>	<u>NL</u>
5. <u>LIND BERTZ</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
6. <u>CAULM CANA</u>	<u>1</u>	<u>N</u>	<u>FACU</u>
7.			
8.			
9.			
10.			
11.			

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation _____

2 - Dominance Test is >50% _____

3 - Prevalence Index is ≤3.0¹ _____

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) _____

Problematic Hydrophytic Vegetation¹ (Explain) _____

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

50% of total cover: 16 = Total Cover 32 20% of total cover: 6.4

Woody Vine Stratum (Plot size: 30')

	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>PARTH QUINCE</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>
2. <u>TOXI RADI</u>	<u>3</u>	<u>Y</u>	<u>FAC</u>
3.			
4.			
5.			

50% of total cover: 4 = Total Cover 8 20% of total cover: 1.6

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No _____

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

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP 5 PHS City/County: CORNSVILLE/KOSCIUSKO Sampling Date: 7/9/13
 Applicant/Owner: AEP State: OH Sampling Point: V1-Wet
 Investigator(s): J.A.L.S. LK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Concave Slope (%): 2-4
 Subregion (LRR or MLRA): LER N Lat: 40.190120 Long: -81.864099 Datum: WGS 84
 Soil Map Unit Name: WaB NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: <u>vernal pool</u> <u>V1-V6</u>	

HYDROLOGY

<p>Wetland Hydrology Indicators:</p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Surface Water (A1) * <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> Aquatic Fauna (B13) 	<p><u>Secondary Indicators (minimum of two required)</u></p> <ul style="list-style-type: none"> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p>Field Observations:</p> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1/2"</u> Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: <u>w/in 5 ft of plot</u>	

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: V1-west

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Podu alb</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>7</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>71.43</u> (A/B)
2. <u>Acer negu</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Acer rubr</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
4. <u>Prunus sero</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. _____				
6. _____				
7. _____				
50% of total cover: <u>30</u> <u>40</u> = Total Cover 20% of total cover: <u>12</u>				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rosa multi</u>	<u>12</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Acer nardo</u>	<u>7</u>	<u>N</u>	<u>FAC</u>	
3. <u>Lind benz</u>	<u>17</u>	<u>Y</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
50% of total cover: <u>18</u> <u>36</u> = Total Cover 20% of total cover: <u>8</u>				
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>grandy</u> <u>CALE HEDE</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 ¹ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation ¹ (Explain)
2. <u>TRAX</u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Jumped</u> <u>PERS VIRG</u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
4. <u>Poate</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. <u>Rosa multi</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
6. <u>Viola</u> <u>(Common blue)</u> <u>SORO</u>	<u>1</u>	<u>N</u>	<u>FAC</u>	
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
50% of total cover: <u>21</u> <u>41</u> = Total Cover 20% of total cover: <u>9</u>				
Woody Vine Stratum (Plot size: <u>20'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Viti rize</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>	Definitions of Four Vegetation Strata: Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
5. _____				
50% of total cover: _____ _____ = Total Cover 20% of total cover: _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: V2-Wet

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 ¹	Loc ²		
0-5	10YR 3/2	98	10YR 5/6	2	C	M	SL	
5-10+	10YR 4/2	98	10YR 4/6	2	C	M	SL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP 5 Points Mine Lands City/County: Cornesville/Coshocton Sampling Date: 7/8/13
 Applicant/Owner: AEP State: OH Sampling Point: V1-UP
 Investigator(s): LS, JA, LK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): _____ Slope (%): _____
 Subregion (LRR or MLRA): N Lat: 40.190124 Long: -81.864035 Datum: WGS 84
 Soil Map Unit Name: WαB NWI classification: _____

Are climatic / hydrologic conditions on the site typical for this time of year? Yes _____ No _____ (If no, explain in Remarks.)
 Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes _____ No
 Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ 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)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>13</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: V1-UP

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer rubrum</u>	<u>12</u>	<u>Y</u>	<u>FAC</u>
2. <u>Frax pens</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>
3. <u>Acer negundo</u>	<u>3</u>	<u>N</u>	<u>FAC</u>
4. <u>Liriodendron</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
5. <u>Quercus rubra</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
6.			
7.			

50% of total cover: $\frac{25}{2} = 12.5$ 20% of total cover: $\frac{25}{5} = 5$ = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lindera benzoin</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>
2. <u>Frax pens</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
3. <u>Rosa mult.</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
4.			
5.			
6.			
7.			
8.			
9.			

50% of total cover: $\frac{20}{2} = 10$ 20% of total cover: $\frac{20}{5} = 4$ = Total Cover

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Polygonum</u>	<u>6</u>	<u>Y</u>	<u>FACU</u>
2. <u>Impatiens</u>	<u>1</u>	<u>N</u>	<u>FACW</u>
3. <u>Alliaria petiolata</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
4. <u>Galium aparine</u>	<u>3</u>	<u>N</u>	<u>FACU</u>
5. <u>Geum canadense</u>	<u>5</u>	<u>Y</u>	<u>FACU</u>
6.			
7.			
8.			
9.			
10.			
11.			

50% of total cover: $\frac{17}{2} = 8.5$ 20% of total cover: $\frac{17}{5} = 3.4$ = Total Cover

Woody Vine Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

50% of total cover: _____ 20% of total cover: _____ = Total Cover

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

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 60% (A/B)

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by:

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is $\leq 3.0^1$
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

SOIL

Sampling Point: V1-UP

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 ¹	Loc ²		
0-5	10YR 3/3	100					SL	
5-11	10YR 3/4	85	10YR 5/8	15	C	M	Sandy L	
11-16+	10YR 4/6	100					Sandy -	Transition to top sand

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils ³ :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> (MLRA 147, 148)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Piedmont Floodplain Soils (F19)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> (MLRA 136, 147)
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Thick Dark Surface (A12)	
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Dark Surface (S7)	
<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	
<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)	
<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)	
<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)	
<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)	

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP-5 Pts City/County: Cokesville/Coshocton Sampling Date: 7/9/13
 Applicant/Owner: AEP State: OH Sampling Point: W11-Wet
 Investigator(s): JA, LS, LK Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depressional Local relief (concave, convex, none): Concave Slope (%): 0-1
 Subregion (LRR or MLRA): LRR N Lat: 40.189712 Long: -81.864152 Datum: _____
 Soil Map Unit Name: WaB NMI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Remarks: _____	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required, check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ True Aquatic Plants (B14) <input checked="" type="checkbox"/> High Water Table (A2) _____ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Water Marks (B1) _____ Presence of Reduced Iron (C4) _____ Sediment Deposits (B2) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Drift Deposits (B3) _____ Thin Muck Surface (C7) _____ Algal Mat or Crust (B4) _____ Other (Explain in Remarks) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) _____ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> _____ 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)
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Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>9"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>8"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: _____

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: WtWet

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Acer rubr</u>	<u>25</u>	<u>Y</u>	<u>FAC</u>	
2. <u>Liriod tili</u>	<u>8</u>	<u>N</u>	<u>FACU</u>	
3. <u>Plat occi</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. <u>Frax penn</u>	<u>12</u>	<u>Y</u>	<u>FACW</u>	
5. <u>Querc rubr</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6. _____				
7. _____				
<u>100</u> = Total Cover 50% of total cover: <u>30</u> 20% of total cover: <u>12</u>				
Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>FRAX penn</u>	<u>7</u>	<u>Y</u>	<u>FACW</u>	
2. <u>ROSA multi</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Elaeag. (Rosa) angustifolia</u>	<u>12</u>	<u>Y</u>	<u>FACU</u>	
4. <u>Acer rubr</u>	<u>5</u>	<u>N</u>		
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
<u>34</u> = Total Cover 50% of total cover: <u>17</u> 20% of total cover: <u>7</u>				
Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Eupa perf</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>	
2. <u>Care luri</u>	<u>5</u>	<u>N</u>	<u>OBL</u>	
3. <u>Care vulp</u>	<u>20</u>	<u>Y</u>	<u>OBL</u>	
4. <u>Galium (Rough bedstraw) asprellum</u>	<u>3</u>	<u>N</u>	<u>OBL</u>	
5. <u>Sens fern Onoclea sensibilis</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u>Frax penn</u>	<u>7</u>	<u>N</u>	<u>FACW</u>	
7. <u>deer tongue grass Dichanthelium clam</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
8. <u>equi arval</u>	<u>15</u>	<u>Y</u>	<u>FAC</u>	
9. <u>Junc tenu</u>	<u>12</u>	<u>N</u>	<u>FAC</u>	
10. <u>Rosa multi</u>	<u>3</u>	<u>N</u>	<u>FACU</u>	
11. _____				
<u>95</u> = Total Cover 50% of total cover: <u>47</u> 20% of total cover: <u>19</u>				
Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover 50% of total cover: _____ 20% of total cover: _____				

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 8 (B)

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

Prevalence Index worksheet:

Total % Cover of: _____ Multiply by:

OBL species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0¹

4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ (Explain)

¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No _____

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

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP-5pts City/County: Conesville/Coshocton Sampling Date: 7/8/13
 Applicant/Owner: AEP State: OH Sampling Point: W2-4p
 Investigator(s): JA, LS, LK Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): _____ Local relief (concave, convex, none): Convex Slope (%): 2-3
 Subregion (LRR or MLRA): LRR N Lat _____ Long: _____ Datum: _____
 Soil Map Unit Name: _____ NWI classification: NONE

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	Hydic Soil Present? Yes <input checked="" type="checkbox"/> No _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point: W1-UP

SOIL

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 ¹	Loc ²		
0-1/2	10YR 3/1	100	-	-	-	-	SL	org. material mixed in
1/2-16+	10YR 5/2	60	10YR 4/4	40	C	M	Sandy loam	disturbed, coal, gravel, org.

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | |
|--|--|---|
| Hydric Soil Indicators: | | Indicators for Problematic Hydric Soils³: |
| <input type="checkbox"/> Histosol (A1) | <input type="checkbox"/> Dark Surface (S7) | <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) |
| <input type="checkbox"/> Histic Epipedon (A2) | <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) | <input type="checkbox"/> Coast Prairie Redox (A16) |
| <input type="checkbox"/> Black Histic (A3) | <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) | <input type="checkbox"/> (MLRA 147, 148) |
| <input type="checkbox"/> Hydrogen Sulfide (A4) | <input type="checkbox"/> Loamy Gleyed Matrix (F2) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) |
| <input type="checkbox"/> Stratified Layers (A5) | <input checked="" type="checkbox"/> Depleted Matrix (F3) | <input type="checkbox"/> (MLRA 136, 147) |
| <input type="checkbox"/> 2 cm Muck (A10) (LRR N) | <input type="checkbox"/> Redox Dark Surface (F6) | <input type="checkbox"/> Very Shallow Dark Surface (TF12) |
| <input type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Depleted Dark Surface (F7) | <input type="checkbox"/> Other (Explain in Remarks) |
| <input type="checkbox"/> Thick Dark Surface (A12) | <input type="checkbox"/> Redox Depressions (F8) | |
| <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) | |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4) | <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) | |
| <input type="checkbox"/> Sandy Redox (S5) | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) | |
| <input type="checkbox"/> Stripped Matrix (S6) | <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | |

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:
Disturbed, gravel & coal fines throughout

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: AEP SPTS Mine Lands City/County: Conesville/Coshacton Sampling Date: 10/14/13

Applicant/Owner: AEP State: OH Sampling Point: X1-W

Investigator(s): JAL, LK Section, Township, Range: S12 T4N RGW

Landform (hillslope, terrace, etc.): Depression-highwall mine Local relief (concave, convex, none): concave Slope (%): 2-3

Subregion (LRR or MLRA): N Lat: 40.189928 Long: -81.248740 Datum: NGS84

Soil Map Unit Name: Bethesda channery silt loam NWI classification: PUBGx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)

Are Vegetation N, Soil N, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No

Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>Disturbed depressional wetland containing suspected fly ash</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input checked="" type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>*</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>17"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: * w/in 10 feet of plot

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: XI-W

Tree Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			

50% of total cover: _____ 20% of total cover: _____ = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			

50% of total cover: _____ 20% of total cover: _____ = Total Cover

Herb Stratum (Plot size: <u>5'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Leersia oryzoides</u>	<u>85</u>	<u>Y</u>	<u>OBL</u>
2. <u>Polygonum hydropiper</u>	<u>2</u>	<u>N</u>	<u>NL</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

50% of total cover: _____ 20% of total cover: _____ = Total Cover

Woody Vine Stratum (Plot size: <u>30'</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

50% of total cover: _____ 20% of total cover: _____ = Total Cover

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 species _____ x 1 = _____

FACW species _____ x 2 = _____

FAC species _____ x 3 = _____

FACU species _____ x 4 = _____

UPL species _____ x 5 = _____

Column Totals: _____ (A) _____ (B)

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: XI-W

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 ¹	Loc ²		
0-5	10YR 2/1	90	10YR 5/8	5	C	M	L	5% 10YR 5/1 Depletions
5-17	10Y 6/1	90	10Y 3/1	10	C	M	L	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- 2 cm Muck (A10) (LRR N)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)

- Dark Surface (S7)
- Polyvalue Below Surface (S8) (MLRA 147, 148)
- Thin Dark Surface (S9) (MLRA 147, 148)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- Iron-Manganese Masses (F12) (LRR N, MLRA 136)
- Umbric Surface (F13) (MLRA 136, 122)
- Piedmont Floodplain Soils (F19) (MLRA 148)
- Red Parent Material (F21) (MLRA 127, 147)

Indicators for Problematic Hydric Soils³:

- 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)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks:

- Highly disturbed, greasy, oily film (~5") above petroleum/H₂S odor
- Flyash or coal fines w/ organic material

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region 10/14/13

Project/Site: AEP SPTS Mine Lands City/County: Coshocton Sampling Date: 8-1-13
 Applicant/Owner: AEP State: OH Sampling Point: _____
 Investigator(s): LS, LK, BM, JA Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): concave Slope (%): 6-8
 Subregion (LRR or MLRA): N Lat: 40.18915 Long: -81.848775 Datum: WGS84
 Soil Map Unit Name: Bethesda channely silt loam NWI classification: PUBGx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No _____ (If no, explain in Remarks.)
 Are Vegetation N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No _____
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes <input checked="" type="checkbox"/>	No _____	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes _____	No <input checked="" type="checkbox"/>	
Remarks:			

HYDROLOGY

Wetland Hydrology Indicators: <u>NONE</u> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) ___ Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) ___ Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial 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)
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Field Observations: Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: X1-4p

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Platanus occi</u>	<u>15</u>	<u>Y</u>	<u>FACW</u>
2. <u>Acer sacc</u>	<u>35</u>	<u>Y</u>	<u>FACU</u>
3. <u>Ulmus amer</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
4.			
5.			
6.			
7.			

50% of total cover: 26.5 53 = Total Cover 20% of total cover: 10.6

Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Rosa mult</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>
2. <u>Smilax rotundifolia</u>	<u>1</u>	<u>N</u>	<u>FAC</u>
3. <u>Lindera benz</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
4. <u>Frax penn</u>	<u>3</u>	<u>N</u>	<u>FACW</u>
5.			
6.			
7.			
8.			
9.			

50% of total cover: 12 24 = Total Cover 20% of total cover: 4.8

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Pilea pumila</u>	<u>30</u>	<u>Y</u>	<u>FACW</u>
2. <u>Rosa mult</u>	<u>8</u>	<u>N</u>	<u>FACU</u>
3. <u>Viola sororia</u>	<u>1</u>	<u>N</u>	<u>FAC</u>
4. <u>Polystichum acra</u>	<u>1</u>	<u>N</u>	<u>FACU</u>
5. <u>Toxi radi</u>	<u>2</u>	<u>N</u>	<u>FAC</u>
6. <u>Ager alti</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
7. <u>Ulmus amer</u>	<u>4</u>	<u>N</u>	<u>FACW</u>
8. <u>Parth quing.</u>	<u>2</u>	<u>N</u>	<u>FACU</u>
9.			
10.			
11.			

50% of total cover: 25 50 = Total Cover 20% of total cover: 10

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Toxi sodi</u>	<u>1</u>	<u>Y</u>	<u>FAC</u>
2.			
3.			
4.			
5.			

50% of total cover: .5 1 = Total Cover 20% of total cover: .2

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>55</u>	x 2 = <u>110</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>63</u>	x 4 = <u>252</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>128</u> (A)	<u>392</u> (B)

Prevalence Index = B/A = 3.06

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0 NO
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: **X1-Up**

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 ¹	Loc ²		
0-3	10YR 3/2	100	-	-	-	-	Loam	
3-20	10YR 5/4	100	-	-	-	-	SaL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- | | | |
|--|--|--|
| <p>Hydric Soil Indicators:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> 2 cm Muck (A10) (LRR N) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) | <ul style="list-style-type: none"> <input type="checkbox"/> Dark Surface (S7) <input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148) <input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136) <input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148) <input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147) | <p>Indicators for Problematic Hydric Soils³:</p> <ul style="list-style-type: none"> <input type="checkbox"/> 2 cm Muck (A10) (MLRA 147) <input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks) |
|--|--|--|

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No

Remarks: **Soils disturbed - gravel, coal fines, & stones**

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: SPTS Mine Lands City/County: Conesville/Coshocton Sampling Date: 10/14/13
 Applicant/Owner: AEP State: OH Sampling Point: Y1-W
 Investigator(s): JALK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): depression - highwall mine Local relief (concave, convex, none): concave Slope (%): 0-2
 Subregion (LRR or MLRA): N Lat: 40.190072 Long: -81.847380 Datum: WGS84
 Soil Map Unit Name: Bethesda Channery silt loam NWI classification: PUBGx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: <u>previously mined area</u>	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input checked="" type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input checked="" type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>-7"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Y1-W

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Plot occi</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
2. <u>Popu delt</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>
3.			
4.			
5.			
6.			
7.			

50% of total cover: 12.5 20% of total cover: 5 25 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Spiraea alba</u>	<u>3</u>	<u>Y</u>	<u>FACW</u>
2. <u>Ulmus amer</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>
3.			
4.			
5.			
6.			
7.			
8.			
9.			

50% of total cover: 2.5 20% of total cover: 1 5 = Total Cover

Herb Stratum (Plot size: <u>5</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Scirpus cyperinus</u>	<u>20</u>	<u>Y</u>	<u>FACW</u>
2. <u>Polygonum hydropiper</u>	<u>12</u>	<u>Y</u>	<u>NL</u>
3. <u>Lysimachia ciliata</u>	<u>2</u>	<u>N</u>	<u>FACW</u>
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			

50% of total cover: 17.5 20% of total cover: 6.8 34 = Total Cover

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			

N/A

50% of total cover: _____ 20% of total cover: _____

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

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

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

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No _____

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

SOIL

Sampling Point: Y1-W

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 ¹	Loc ²		
0-2	10YR2/2	100					org	fibric
2-15.5	N 5/	100					Loamy sand	stone inclusions (15%)

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soils ³ :	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> 2 cm Muck (A10) (MLRA 147)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Polyvalue Below Surface (S8) (MLRA 147, 148)	<input type="checkbox"/> Coast Prairie Redox (A16) (MLRA 147, 148)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Thin Dark Surface (S9) (MLRA 147, 148)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 136, 147)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> 2 cm Muck (A10) (LRR N)	<input type="checkbox"/> Redox Dark Surface (F6)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Dark Surface (F7)		
<input checked="" type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Depressions (F8)		
<input type="checkbox"/> Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR N, MLRA 136)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Umbric Surface (F13) (MLRA 136, 122)		
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 148)		
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Red Parent Material (F21) (MLRA 127, 147)		

Restrictive Layer (if observed):
 Type: _____
 Depth (inches): _____

Hydric Soil Present? Yes No

Remarks: gleys present

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 5 PTS Mine Lands City/County: Conesville/Coshacton Sampling Date: 10/14/13
 Applicant/Owner: AEP State: OH Sampling Point: Z1-W
 Investigator(s): JAL, LK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): Depression-highwall mine Local relief (concave, convex, none): concave Slope (%): 2-5
 Subregion (LRR or MLRA): N Lat: 40.89977 Long: -81.846491 Datum: WGS84
 Soil Map Unit Name: Bethesda channery silt loam NWI classification: PUBGX

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation N, Soil Y, or Hydrology N significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation N, Soil N, or Hydrology N naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) ___ True Aquatic Plants (B14) ___ High Water Table (A2) ___ Hydrogen Sulfide Odor (C1) <input checked="" type="checkbox"/> Saturation (A3) ___ Oxidized Rhizospheres on Living Roots (C3) ___ Water Marks (B1) ___ Presence of Reduced Iron (C4) ___ Sediment Deposits (B2) ___ Recent Iron Reduction in Tilled Soils (C6) <input checked="" type="checkbox"/> Drift Deposits (B3) ___ Thin Muck Surface (C7) ___ Algal Mat or Crust (B4) ___ Other (Explain in Remarks) ___ Iron Deposits (B5) ___ Inundation Visible on Aerial Imagery (B7) ___ Water-Stained Leaves (B9) ___ Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> ___ Surface Soil Cracks (B6) ___ Sparsely Vegetated Concave Surface (B8) ___ Drainage Patterns (B10) <input checked="" type="checkbox"/> Moss Trim Lines (B16) ___ Dry-Season Water Table (C2) ___ Crayfish Burrows (C8) ___ Saturation Visible on Aerial Imagery (C9) ___ Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>-10"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>Surface</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION (Four Strata) – Use scientific names of plants.

Sampling Point: Z1-W

Tree Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer rubrum</u>	<u>7</u>	<u>Y</u>	<u>FAC</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

_____ = Total Cover
 50% of total cover: 3.5 20% of total cover: _____

Sapling/Shrub Stratum (Plot size: <u>15</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Platanus occi</u>	<u>2</u>	<u>Y</u>	<u>FACW</u>
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____

_____ = Total Cover
 50% of total cover: 1 20% of total cover: _____

Herb Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Polygonum hydropiper</u>	<u>20</u>	<u>Y</u>	<u>NL</u>
2. <u>Scirpus cyperinus</u>	<u>45</u>	<u>Y</u>	<u>FACW</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____

_____ = Total Cover
 50% of total cover: 32.5 20% of total cover: 13

Woody Vine Stratum (Plot size: <u>30</u>)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____

N/A

_____ = Total Cover
 50% of total cover: _____ 20% of total cover: _____

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 species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____	(A) _____ (B) _____

Prevalence Index = B/A = _____

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
 - 2 - Dominance Test is >50%
 - 3 - Prevalence Index is ≤3.0¹
 - 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
 - Problematic Hydrophytic Vegetation¹ (Explain)
- ¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Four Vegetation Strata:

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

Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 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 vine – All woody vines greater than 3.28 ft in height.

Hydrophytic Vegetation Present? Yes No

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

SOIL

Sampling Point: Z1-W

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 ¹	Loc ²		
0-3	10YR 4/2	92	10YR 5/1	8	D	M	LS	3% org 10YR 2/1
3-21	10YR 5/1	88	10YR 6/8	12	C	M	SCL	

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix.

- Hydric Soil Indicators:**
- Histosol (A1)
 - Histic Epipedon (A2)
 - Black Histic (A3)
 - Hydrogen Sulfide (A4)
 - Stratified Layers (A5)
 - 2 cm Muck (A10) (LRR N)
 - Depleted Below Dark Surface (A11)
 - Thick Dark Surface (A12)
 - Sandy Mucky Mineral (S1) (LRR N, MLRA 147, 148)
 - Sandy Gleyed Matrix (S4)
 - Sandy Redox (S5)
 - Stripped Matrix (S6)
 - Dark Surface (S7)
 - Polyvalue Below Surface (S8) (MLRA 147, 148)
 - Thin Dark Surface (S9) (MLRA 147, 148)
 - Loamy Gleyed Matrix (F2)
 - Depleted Matrix (F3)
 - Redox Dark Surface (F6)
 - Depleted Dark Surface (F7)
 - Redox Depressions (F8)
 - Iron-Manganese Masses (F12) (LRR N, MLRA 136)
 - Umbric Surface (F13) (MLRA 136, 122)
 - Piedmont Floodplain Soils (F19) (MLRA 148)
 - Red Parent Material (F21) (MLRA 127, 147)
- Indicators for Problematic Hydric Soils³:**
- 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)
- ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes No _____

Remarks:

WETLAND DETERMINATION DATA FORM – Eastern Mountains and Piedmont Region

Project/Site: 5PTS Mine Lands City/County: Conesville/Coshacton Sampling Date: 10/14/13
 Applicant/Owner: AEP State: OH Sampling Point: Z1 Up
 Investigator(s): JA, LK Section, Township, Range: S12 T4N R6W
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10-15
 Subregion (LRR or MLRA): N Lat: 40.190024 Long: -81.846349 Datum: WGS 84
 Soil Map Unit Name: Bethesda channery silt loam NWI classification: PUBGx

Are climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)
 Are Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No
 Are Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks:	

HYDROLOGY

Wetland Hydrology Indicators: <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> True Aquatic Plants (B14) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
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Field Observations: Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u> </u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>> -14"</u> Saturation Present? (Includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>> -14"</u>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: