Wetland 32	2	Rater(s): C. ASHBA	UGH	/B.MILLER	Date:	11/13/2018
	40	]		W-CBA-008 PEM		
	subtotal this	Metric 5. Special Wetlands.				
10	-	i ·	atad			
max 10 pts.	subtotal	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolocuse (10) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10)	ology ( ogy (5)			
		Known occurrence state/federal threatened or endan Significant migratory songbird/water fowl habitat or u				
		Category 1 Wetland. See Question 5 Qualitative Rat				
	2 42	Metric 6. Plant communities, inte	erspe	ersion, microtopograph	V.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		Vegetation Community Co	•	
max zopts.	Subtotal	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471		
		Aquatic bed	1	Present and either comprises small		
		1 Emergent		vegetation and is of moderate quality	y, or comprises a	
		Shrub		significant part but is of low quality		
		Forest Mudflats	2	Present and either comprises signifi- vegetation and is of moderate quality		
		Open water		part and is of high quality	y or comprises a smair	
		Other	3	Present and comprises significant pa	art, or more, of wetland's 3	1
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
		Select only one.				
		High (5)		Narrative Description of Vegetatio		
		Moderately high(4)		Low spp diversity and/or predominal	nce of nonnative or low	
		Moderate (3) Moderately low (2)		disturbance tolerant native species  Native spp are dominant component	of the vegetation, mod	
		Low (1)		although nonnative and/or disturban		
		x None (0)		can also be present, and species div		
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pi		
		Table 1 ORAM long form for list. Add		threatened or endangered spp to		
		or deduct points for coverage		A predominance of native species, v		
		Extensive >75% cover (-5)		and/or disturbance tolerant native sp		
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and o the presence of rare, threatened, or		
		Nearly absent <5% cover (0)		and processes of rane, timeatories, or	ondangorod opp	
		x Absent (1)		Mudflat and Open Water Class Qu	ality	
		6d. Microtopography.		Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres		
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2	Moderate 1 to <4ha (2.47 to 9.88 ac High 4ha (9.88 acres) or more	res)	
		Standing dead >25cm (10in) dbh	3	riigii 4ila (3.00 acres) or more		
		Amphibian breeding pools		Microtopography Cover Scale		
		<del></del>	0	Absent		
			1	Present very small amounts or if mo	re common	
Modified			-	of marginal quality	at of highout	
Category 2			2	Present in moderate amounts, but no quality or in small amounts of highes		
2 2.togo. y 2	42 GRAND	TOTAL(max 100 pts)	3	Present in moderate or greater amount	· · · ·	
	-2 GRANL	/ TOTAL(max 100 pts)	3	j ,	anto	
				and of highest quality		

wetland 32 | W-CBA-008 PEM\_Field 3/8/2019



### PHOTOGRAPHIC RECORD **WETLANDS**

AEP

Gable-Carrollton 138 kV Transmission Line Project

Site Location:

Project No. 60582598

#### Wetland 32

**Client Name:** 

Date:

November 13, 2018

**Description:** 

PEM

Modified Category 2

Facing North



#### Wetland 32

Date:

November 13, 2018 **Description:** 

PEM

Modified Category 2

Facing East





# PHOTOGRAPHIC RECORD WETLANDS

Site Location:

AEP

Gable-Carrollton 138 kV Transmission Line Project

**Project No.** 60582598

#### Wetland 32

**Client Name:** 

Date:

November 13, 2018

**Description:** 

PEM

Modified Category 2

Facing South



#### Wetland 32

Date:

November 13, 2018

**Description:** 

PEM

Modified Category 2

Facing West





# PHOTOGRAPHIC RECORD WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 32

Date:

November 13, 2018

### **Description:**

PEM

Modified Category 2

Soil Pit



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

Project/Site: Carrollton-Gable	City/County: Carroll	Sampling Date: 13-Nov-18				
Applicant/Owner: AEP	State: OH Sampli	ampling Point: W-CBA-010 PEM				
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range:	<b>S</b> 10 <b>T</b> Lee - 13N <b>R</b> 5W				
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex,	none): concave				
Subregion (LRR or MLRA): LRR N	 Lat.: 40.529408	ong.: -81.003018				
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt loams		I classification: N/A				
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes No (If no	o, explain in Remarks.)				
		al Circumstances" present? Yes  No				
		, explain any answers in Remarks.)				
Summary of Findings - Attach site map showi	, ,					
Hydrophytic Vegetation Present? Yes  No						
Hydric Soil Present? Yes No	Is the Sampled Area					
V (a) N- (	within a Wetland?	Yes ● No ○				
Wetland Hydrology Present? Yes NO						
located in forest land on the edge of an existing electric transmi vegetation community dominated by Poa palustris. Intermittent						
Hydrology						
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)				
Primary Indicators (minimum of one required; check all that ap	ply)	Surface Soil Cracks (B6)				
	Plants (B14)	Sparsely Vegetated Concave Surface (B8)				
	ulfide Odor (C1)	✓ Drainage Patterns (B10)				
	zospheres along Living Roots (C3)	Moss Trim Lines (B16)				
	Reduced Iron (C4)	Dry Season Water Table (C2)				
	Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)				
Drift deposits (B3)  Thin Muck S	urface (C7)	Saturation Visible on Aerial Imagery (C9)				
	in in Remarks)	Stunted or Stressed Plants (D1)				
Iron Deposits (B5)		✓ Geomorphic Position (D2)				
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)				
Water-Stained Leaves (B9)		Microtopographic Relief (D4)				
Aquatic Fauna (B13)		FAC-neutral Test (D5)				
Field Observations:						
Surface Water Present? Yes  No Depth (inc	hes):1					
Water Table Present? Yes   No  Depth (inc	hes):0	drology Present? Yes   No				
Saturation Present? (includes capillary fringe)  Yes  No  Depth (includes Capillary fringe)		drology Present? Yes • No ·				
Describe Recorded Data (stream gauge, monitoring well, aerial	photos, previous inspections), if ava	ilable:				
Remarks:						
Source of hydrology is a groundwater seep located on the hillsic perennial watercourse. Oily sheen observed on surface water.	le above the wetland, surface water	r collection and overland flow from adjacent				

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

		-Species?	
/Diet size	Absolute % Cover	Rel Strat Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Number of Dominant Species
1	0	0.0%	That are OBL, FACW, or FAC:1(A)
2		0.0%	Total Number of Dominant
3		0.0%	Species Across All Strata: (B)
4		0.0%	Percent of dominant Species
5		0.0%	That Are OBL, FACW, or FAC: 100.0% (A/B)
6		0.0%	
7		0.0%	Prevalence Index worksheet:  Total % Cover of: Multiply by:
8		= Total Cover	
Sapling-Sapling/Shrub Stratum (Plot size:	)	- Total Covel	
1			FACW species $80 \times 2 = 160$
2		0.0%	FAC species $0 \times 3 = 0$
3		0.0%	FACU species $0 \times 4 = 0$
4		0.0%	UPL species $0 \times 5 = 0$
5		0.0%	Column Totals: 90 (A) 170 (B)
6		0.0%	Prevalence Index = B/A = 1.889
7		0.0%	Hydrophytic Vegetation Indicators:
8		0.0%	Rapid Test for Hydrophytic Vegetation
9		0.0%	✓ Dominance Test is > 50%
0		0.0%	✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	_	= Total Cover	
1	0	0.0%	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
2		0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
3		0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4		0.0%	be present, unless disturbed or problematic.
		0.0%	Definition of Vegetation Strata:
5		0.0%	Four Vegetation Strata:
6		0.0%	Tree stratum – Consists of woody plants, excluding vines, 3
7		= Total Cover	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5 ft radius</u> )		_	Sapling/shrub stratum – Consists of woody plants, excluding
1. Poa palustris		<b>✓</b> 83.3% FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Carex lurida		11.1%OBL	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Juncus effusus	5	5.6% FACW	fit all Woody vines – Consists of all woody vines greater than 3.28
4. Agrimonia parviflora			ft in height.
5			
6			Five Vegetation Strata:
7			Tree - Woody plants, excluding woody vines, approximately
8			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			Sapling stratum – Consists of woody plants, excluding
0			woody vines, approximately 20 ft (6 m) or more in height and
1			less than 3 in. (7.6 cm) DBH.
2	0		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	90=	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%	plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2		0.0%	3 ft (1 m) in height.
3.	0	0.0%	Woody vines – Consists of all woody vines, regardless of
4	0	0.0%	height.
5		0.0%	Undershadia
6.		0.0%	Hydrophytic Vegetation
<u>-</u>		= Total Cover	Present? Yes No
	0	- I Otal Covel	

Soil Sampling Point: W-CBA-010 PEM

Dept	Profile Descr		the depth n				nfirm the	absence of indicators.)		
0-12 10YR 5/1 95 10YR 4/4 5 C PL Silty Clay Loam  1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2 Location: PL=Pore Lining. M=Matrix  Hydric Soil Indicators:    Histosoi (A1)		Берш		Matrix Redox Features					_	
1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2-Location: PL=Pore Lining. M=Matrix  Hydric Soil Indicators:    Histor Epipedon (A2)									Ren	narks
Hydric Soil Indicators:    Histosol (A1)		101K 3/1		101K 4/4				Silly Clay Loan		
Hydric Soil Indicators:    Histosol (A1)								-		
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)								,		
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)										
Hydric Soil Indicators:    Histosol (A1)	<sup>1</sup> Type: C=Con	centration. D=Depletic	on. RM=Reduc	ced Matrix. CS=Cover	ed or Coat	ed Sand Gra	ains <sup>2</sup> Loc	ation: PL=Pore Lining, M=N	/latrix	
Histosol (A1)										3
Histic Epipedon (A2)	1 —			Dark Surface (	S7)				=	ic Soils":
Black Histic (A3)	·	,		`	,	(S8) (MLRA	147,148)			
✓ Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Piedmont Floodplain Soils (F19)   Stratified Layers (A5) ✓ Depleted Matrix (F3) (MLRA 136, 147)   ☐ 2 cm Muck (A10) (LRR N) Redox Dark Surface (F6) Very Shallow Dark Surface (TF12)   ☐ Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Other (Explain in Remarks)   ☐ Thick Dark Surface (A12) ✓ Redox Depressions (F8)   ☐ Sandy Muck Mineral (S1) (LRR N, MLRA 136) Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)   ☐ Sandy Gleyed Matrix (S4) Umbric Surface (F13) (MLRA 136, 122)   ☐ Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148)   ☐ Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)    **Restrictive Layer (if observed):  Type:  Depth (inches):  **Type:									ox (A16)	
Stratified Layers (A5)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Remarks:  MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes No				Loamy Gleyed	Matrix (F2	)			ain Soils (F19	)
Depleted Below Dark Surface (A11) □ Thick Dark Surface (A12) □ Sandy Muck Mineral (S1) (LRR N, MLRA 136, 136) □ Sandy Gleyed Matrix (S4) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 127, 147) □ Stripped Matrix (S6) □ Red Parent Material (F21) (MLRA 127, 147) □ Sestrictive Layer (if observed): □ Type: □ Depth (inches): □ Pepth (inches): □ Pepth (inches): □ Remarks: □ Present? Yes ● No □	Stratified	Layers (A5)		✓ Depleted Matri	x (F3)				uiii 50ii5 (i 15	,
Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Remarks:	2 cm Muc	k (A10) (LRR N)			. ,			Very Shallow Dark	k Surface (TF	12)
Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type:  Depth (inches):  Remarks:  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Umbric Surface (F13) (MLRA 148)  Well And Italy (F19) (MLRA 148)  Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes  No  No		•	A11)	_ '	`	7)		Other (Explain in	Remarks)	
MLRA 147, 148)    Sandy Gleyed Matrix (S4)		` '				(E12) (LDD				
Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:	Sandy Mu MLRA 147	ıck Mineral (S1) (LRR I 7, 148)	Ν,	MLRA 136)						
Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:  Technolic Frostplant Soils (F21) (MLRA 127, 147)  Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes  No								<sup>3</sup> Indicators of	hydrophytic y	egetation and
Restrictive Layer (if observed):  Type: Depth (inches):  Remarks:  Hydric Soil Present? Yes  No								wetland hyd	Irology must I	pe present,
Type:	☐ Stripped N	Matrix (S6)		Red Parent Ma	iterial (F21	) (MLRA 12	7, 147)	unless dis	sturbed or pro	oblematic.
Depth (inches): Hydric Soil Present? Yes • No ·	Restrictive L	ayer (if observed):								
Remarks:								Hydric Soil Present?	Voc (	No O
	Depth (inc	hes):						Tryuric 3011 Present:	ies ©	NO U
Shovel refusal at 12 inches due to rock.	Remarks:									
	Shovel refusa	l at 12 inches due t	o rock.							

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

Project/Site: Carrollton-Gable			City/County: Carroll		Sampling Date: 13-Nov-1	8
Applicant/Owner: AEP			State: OH Sampl	ing Point:	W-CBA-010 UPL	
Investigator(s): C.Ashbaugh, B.Miller			Section, Township, Range:	s 10 T	Lee - 13N	<b>R</b> 5
Landform (hillslope, terrace, etc.):	Hillside		Local relief (concave, convex,	none): flat	Slope: 15.0%	/ 8.5 °
Subregion (LRR or MLRA): LRR N		lat.:	40.529149 <b>Lo</b>	ong.: -81.002948	Datum: NA	
Soil Map Unit Name: WmD; Westmo	reland-Cos			I classification: N		
Are climatic/hydrologic conditions on				o, explain in Rema		
					,	$\bigcirc$
	, or Hydrol			al Circumstances"	present? Tes : No	0
Are Vegetation, Soil	, or Hydrol	ogy 🗌 naturally p	roblematic? (If needed	, explain any answ	ers in Remarks.)	
<b>Summary of Findings - Att</b>	ach site	map showing s	sampling point location	ons, transects	s, important feature	es, etc.
Hydrophytic Vegetation Present?	Yes O	No 💿				
Hydric Soil Present?	Yes 🔾	No •	Is the Sampled Area	Yes ○ No ●		
Wetland Hydrology Present?	Yes 🔾	No •	within a Wetland?	res U No U		
Upland sample point associated with watercourse S-CBA-007.	wetland V	V-CBA-010 PEM. Samp	ole point located in existing ele	ectric transmission	powerline ROW above pere	ennial
Hydrology						
Wetland Hydrology Indicators:		-1111-11			tors (minimum of two required)	)
Primary Indicators (minimum of one Surface Water (A1)	: requirea;		(D14)	Surface Soil C	• •	
High Water Table (A2)		☐ True Aquatic Plants ☐ Hydrogen Sulfide C	` '	Drainage Patte	etated Concave Surface (B8)	
Saturation (A3)		_ ′ ′	eres along Living Roots (C3)	Moss Trim Lin	` '	
Water Marks (B1)		Presence of Reduce			ater Table (C2)	
Sediment Deposits (B2)			tion in Tilled Soils (C6)	Crayfish Burro	. ,	
☐ Drift deposits (B3)		Thin Muck Surface	* *		ible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in R	temarks)	Stunted or Str	ressed Plants (D1)	
☐ Iron Deposits (B5)		_ 、 .	,	Geomorphic P	Position (D2)	
☐ Inundation Visible on Aerial Imagery	(B7)			Shallow Aquita	ard (D3)	
Water-Stained Leaves (B9)				Microtopograp	ohic Relief (D4)	
Aquatic Fauna (B13)				FAC-neutral T	est (D5)	
Field Observations:						
Surface Water Present? Yes	No 💿	Depth (inches):				
Water Table Present? Yes	No 💿	Depth (inches):			Yes O No •	
Saturation Present? (includes capillary fringe)  Yes	No 💿	Depth (inches):	Wetland Hy	drology Present?	Yes ○ No ●	
Describe Recorded Data (stream gau	ige, monito	oring well, aerial photo	s, previous inspections), if ava	nilable:		
Remarks:						
No hydrology observed.						

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

		Dominant Cresise2	Sampling Point: W-CBA-010 UPL
Tree Stratum (Plot size:)	Absolute % Cover	-Species? Rel.Strat. Cover Indicator Status	Dominance Test worksheet:
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC:  (A)
2.		0.0%	
3		0.0%	Total Number of Dominant Species Across All Strata: 1 (B)
4		0.0%	Species Across All Strata: (B)
5		0.0%	Percent of dominant Species
6.		0.0%	That Are OBL, FACW, or FAC: 0.0% (A/B)
7		0.0%	Prevalence Index worksheet:
8		0.0%	Total % Cover of: Multiply by:
	0 =	= Total Cover	OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:	)		FACW species 0 x 2 = 0
1			FAC species $10 \times 3 = 30$
2	0		
3			' 25 125
4			ore species — x 3 = ——
5	0		Column Totals: 130 (A) 535 (B)
6			Prevalence Index = B/A =4.115_
7	0		Hydrophytic Vegetation Indicators:
8		0.0%	Rapid Test for Hydrophytic Vegetation
9		0.0%	☐ Dominance Test is > 50%
0	0	0.0%	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0=	= Total Cover	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%	data in Remarks or on a separate sheet)
2		0.0%	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3		0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4		0.0%	be present, unless disturbed or problematic.
5		0.0%	Definition of Vegetation Strata:
6		0.0%	Four Vegetation Strata:
	0	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3
7 (Plot size: <u>5 ft radius</u> )		= Total Cover	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1. Dactylis glomerata	75	<b>✓</b> 57.7% FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Daucus carota	15	11.5% UPL	Herb stratum – Consists of all herbaceous (non-woody)
3. Plantago lanceolata	10	7.7% UPL	plants, regardless of size, and all other plants less than 3.28
4 Trifolium repens	10	7.7% FACU	ft tall Woody vines – Consists of all woody vines greater than 3.28
5. Viola sororia	10	7.7% FAC	ft in height.
6. Taraxacum officinale	5	3.8% FACU	Five Vegetation Strata:
7. Glechoma hederacea	5	3.8% FACU	, and the second se
8.	0	0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9		0.0%	diameter at breast height (DBH).
0		0.0%	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
1		0.0%	less than 3 in. (7.6 cm) DBH.
2.		0.0%	Shrub stratum – Consists of woody plants, excluding woody
	130 =	= Total Cover	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		0.00/	Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1	0	0.0%	woody species, except woody vines, less than approximately
2		0.0%	3 ft (1 m) in height.
3		0.0%	Woody vines – Consists of all woody vines, regardless of height.
4	0		_ · • ·
5			Hydrophytic
6	0		Vegetation V
	0 :	= Total Cover	Present? Yes UNO U

Soil Sampling Point: W-CBA-010 UPL

Profile Descr	iption: (Describe to	the depth	needed to document	the indi	cator or co	nfirm the	absence of indicators.)	
Depth	Matrix			lox Featu	ires ,		_	
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks
0-3	10YR 4/3						Silt Loam	
3-12	10YR 5/3	100					Silt Loam	
	-							
	-						· · · · · · · · · · · · · · · · · · ·	
1								
		on. RM=Red	uced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	1atrix
Hydric Soil I							Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol (	,		Dark Surface (	,	,		2 cm Muck (A10)	(MLRA 147)
	pedon (A2)		Polyvalue Belov				Coast Prairie Redo	ox (A16)
Black Hist			Thin Dark Surfa			148)	(MLRA 147,148)	,
	Sulfide (A4) Layers (A5)		Loamy Gleyed		)		Piedmont Floodpl	ain Soils (F19)
	k (A10) (LRR N)		Depleted Matri				(MLRA 136, 147)	0.6 (77.10)
	Below Dark Surface (A	A11)	Depleted Dark	. ,	7)		☐ Very Shallow Dark	
	k Surface (A12)	411)	Redox Depress		,,		Other (Explain in	Remarks)
	ıck Mineral (S1) (LRR I	N	☐ Iron-Manganes		(F12) (LRR	N,		
MLRA 147	7, 148)	IN,	MLRA 136)		, , ,	,		
Sandy Gle	eyed Matrix (S4)		Umbric Surface	e (F13) (M	LRA 136, 12	22)	3	
Sandy Re	dox (S5)		☐ Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	Indicators of wetland hyd	hydrophytic vegetation and Irology must be present,
Stripped I	Matrix (S6)		Red Parent Ma	terial (F21	) (MLRA 12	7, 147)		sturbed or problematic.
Postrictive I	ayer (if observed):							
Type:	ayer (ii observeu).							
Depth (inc							Hydric Soil Present?	Yes ○ No ●
	1103)							
Remarks:								
Snovei refusa	ıl at 12 inches due t	to rock.						

Wetland 33	Rater(s): C. ASHBA	UGH/B.MILLER	Date: 11/13/20
max 6 pts subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  < <0.1 acres (0.04ha) (0 pts)	W-CBA-010 PEM  0.02 acres	
max 14 pts. subtotal	Metric 2. Upland buffers and sur  2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <164 NARROW. Buffers average 10m to <25m (32ft to <8 VERY NARROW. Buffers average 10m to <32ft) around to such that the surface of the surface o	ne and assign score. Do not double che wetland perimeter (7) ft) around wetland perimeter (4) 2ft) around wetland perimeter (1) und wetland perimeter (0) or double check and average. annah, wildlife area, etc. (7) Id growth forest. (5)	
	Metric 3. Hydrology.  3a. Sources of Water. Score all that apply. High pH groundwater (5)  \times \text{Other groundwater} (3)  Precipitation (1) Seasonal/Intermittent surface water (3)  Preprenial surface water (lake or stream) (5)  3c. Maximum water depth. Select one.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)  <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. S  None or none apparent (12) Recovering (3)  Recent or no recovery (1)	3b. Connectivity. Score all that a 100 year floodplain (1) Between stream/lake and other hu Part of wetland/upland (e.g. forest x Part of riparian or upland corridor 3d. Duration inundation/saturati Semi- to permanently inundated/s Regularly inundated/saturated (3) Seasonally inundated (2) x Seasonally inundated in upper 30c core one or double check and average. Check all disturbances observe ditch potential dike footbase in the seasonal se	iman use (1) i), complex (1) (1) on. Score one or dbl check. aturated (4)
22	Metric 4. Habitat Alteration and I  4a. Substrate disturbance. Score one or double of the None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assex Excellent (7)  Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1)  4c. Habitat alteration. Score one or double check None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	Development. check and average.  sign score.  Check all disturbances observed mowing sh x grazing he x clearcutting se selective cutting woody debris removal far	rub/sapling removal rbaceous/aquatic bed removal dimentation edging ming trient enrichment

wetland 33 | W-CBA-010 PEM\_Field 3/8/2019

Wetland 3	3	Rater(s): C. ASHBA	UGH	/B.MILLER	Date:	11/13/2018
	22 subtotal this	<b>≟</b>		W-CBA-010 PEM		
	0 22	•				
10		•	ated			
max 10 pts.	subtotal	Check all that apply and score as indic  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrol Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10)	rology (	10)		
		Known occurrence state/federal threatened or endar	ngered	species (10)		
		Significant migratory songbird/water fowl habitat or u				
		Category 1 Wetland. See Question 5 Qualitative Ra		·		
	3 25	Metric 6. Plant communities, inte	erspe	ersion, microtopography.	ı	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		<b>Vegetation Community Cove</b>	er Scale	
		Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed	1	Present and either comprises small pa		
		1 Emergent Shrub		vegetation and is of moderate quality, significant part but is of low quality	or comprises a	
		Forest	2	Present and either comprises significal	nt part of wetland's 2	
		Mudflats		vegetation and is of moderate quality of		
		Open water		part and is of high quality		
		Other	3	Present and comprises significant part	, or more, of wetland's 3	<b>;</b>
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
		Select only one. High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)		Native spp are dominant component of		
		Low (1)		although nonnative and/or disturbance		
		x None (0)  6c. Coverage of invasive plants. Refer		can also be present, and species diver moderately high, but generallyw/o pres		
		Table 1 ORAM long form for list. Add		threatened or endangered spp to	sence of rare	
		or deduct points for coverage		A predominance of native species, with	nonnative spp high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp	absent or virtually	
		Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
		Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or en	dangered spp	
		x Absent (1)		Mudflat and Open Water Class Quali	itv	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	,	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
		1 Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh  Amphibian breeding pools		Microtopography Cover Scale		
			0	Absent		
				Present very small amounts or if more of marginal quality	common	
Category 1			2	Present in moderate amounts, but not quality or in small amounts of highest of		
	25 GRANI	D TOTAL(max 100 pts)	3	Present in moderate or greater amount		
				and of highest quality		

wetland 33 | W-CBA-010 PEM\_Field 3/8/2019



WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 33

Date:

November 13, 2018

**Description:** 

PEM

Category 1

Facing North



#### Wetland 33

Date:

November 13, 2018

**Description:** 

PEM

Category 1

Facing East





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 33

Date:

November 13, 2018

**Description:** 

PEM

Category 1

Facing South



#### Wetland 33

Date:

November 13, 2018

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 33

Date:

November 13, 2018

**Description:** 

PEM

Category 1

Soil Pit



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

Project/Site: Carrollton-Gable		Cit	y/County: Carroll		Sampling Date	: 14-Nov-18
Applicant/Owner: AEP		Sta	te: OH Sampli	ng Point:	W-CBA-0	11 PEM
Investigator(s): C.Ashbaugh, B.Miller		Se	ction, Township, Range: \$	5 4	<b>T</b> 13N - Lee	<b>R</b> 5W
Landform (hillslope, terrace, etc.):	Floodplain	Loca	al relief (concave, convex,	none):	concave Slope:	0.5%/0.3 °
Subregion (LRR or MLRA): MLRA	 127 in LRR	N <b>Lat.:</b> 40.	519820 <b>Lo</b>	ng.: -80.9	990072	Datum: NAD83
Soil Map Unit Name: BkE; Berks cha					tion: R4SBC	
Are climatic/hydrologic conditions or	1 the site ty	pical for this time of year?	Yes ● No ○ (If no	o, explain i	in Remarks.)	
Are Vegetation $\square$ , Soil $\square$	, or Hydrol			al Circumst	tances" present? Yes	s 💿 No 🔾
Are Vegetation , Soil	, or Hydrol	ogy naturally proble			ny answers in Remarks.	)
Summary of Findings - At	tach site	e map showing sam	pling point locatio	ns, trai	nsects, important	t features, etc
Hydrophytic Vegetation Present?	Yes •	No O			<del>-</del>	-
Hydric Soil Present?	Yes	No O	Is the Sampled Area			
Wetland Hydrology Present?	Yes •	No O	within a Wetland?	Yes 💿	No O	
Remarks: PEM wetland located in stream valled	ey/floodplai	n of perennial stream S-CB	A-012. The boundary of t	he wetland	d follows the edge of the	e right-of-way.
Hydrology						
Wetland Hydrology Indicators:				Secondar	v Indicators (minimum of t	two required)
Primary Indicators (minimum of on	e required;	check all that apply)		Surfa	ice Soil Cracks (B6)	
Surface Water (A1)		☐ True Aquatic Plants (B1	4)	Spars	sely Vegetated Concave Su	rface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Odor	(C1)	Drain	nage Patterns (B10)	
✓ Saturation (A3)		✓ Oxidized Rhizospheres	along Living Roots (C3)	Moss	Trim Lines (B16)	
☐ Water Marks (B1)		Presence of Reduced In	on (C4)	Dry S	Season Water Table (C2)	
Sediment Deposits (B2)		Recent Iron Reduction i	in Tilled Soils (C6)	Crayf	fish Burrows (C8)	
☐ Drift deposits (B3)		Thin Muck Surface (C7)	• •	_ `	ration Visible on Aerial Ima	gery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rema			ted or Stressed Plants (D1)	
☐ Iron Deposits (B5)			IKS)		norphic Position (D2)	
Inundation Visible on Aerial Imager	v (B7)				ow Aquitard (D3)	
Water-Stained Leaves (B9)	, (5,)					
Aquatic Fauna (B13)					otopographic Relief (D4) neutral Test (D5)	
				▼ FAC-I	neutral rest (D3)	
Field Observations: Surface Water Present?  Yes	No 💿	Depth (inches):				
Surface Water Present?  Water Table Present?  Yes  Yes			10			
		Depth (inches):	Wetland Hyd	irology Pre	esent? Yes • N	o O
(includes capillary fringe)		Depth (inches):	8			
Describe Recorded Data (stream ga	uge, monito	oring well, aerial photos, pr	revious inspections), if ava	ilable:		
Remarks:						
		ollostian and susuland flam	from adjacent never:-! -	troom		
Primary source of hydrology is surfa	ice water o	vilection and overland flow	iroin adjacent perennial s	ıream.		

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

• •		Dominant		Sampling Point: W-CBA-011 PEM
	Absolute	itciioti ati	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2		0.0%		Total Number of Dominant
3		0.0%		Species Across All Strata: (B)
4		0.0%		Percent of dominant Species
5		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6		0.0%		
7		0.0%		Prevalence Index worksheet:  Total % Cover of: Multiply by:
8	0	= Total Cover		
Sapling-Sapling/Shrub Stratum (Plot size:)	:	- Total Cover		
1	0	0.0%		FACW species $115$ x 2 = $230$
2	0	0.0%		FAC species $0 \times 3 = 0$
3	0			FACU species $0 \times 4 = 0$
4	0			UPL species $0 \times 5 = 0$
5	0			Column Totals: <u>120</u> (A) <u>235</u> (B)
6	0	0.0%		Prevalence Index = B/A = 1.958
7	0			Hydrophytic Vegetation Indicators:
8	0			Rapid Test for Hydrophytic Vegetation
9	0			✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	:	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
3	0	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	_	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6	0	0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: 5' radius )	:	= Total Cover		regardless of height.
1 Phalaris arundinacea	100	<b>✓</b> 83.3%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Eupatorium perfoliatum	10	8.3%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3. Onoclea sensibilis	5	4.2%	FACW	plants, regardless of size, and all other plants less than 3.28
4. Symplocarpus foetidus	5	4.2%	OBL	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0	0.0%		it in neight.
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		Tree - Woody plants, excluding woody vines, approximately
8	0	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0	0.0%		diameter at breast height (DBH). Sapling stratum – Consists of woody plants, excluding
10	0			woody vines, approximately 20 ft (6 m) or more in height and
11	0			less than 3 in. (7.6 cm) DBH.
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	120 :	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and
2.	0	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3.	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5		0.0%		Hadasahadia
6	0	0.0%		Hydrophytic Vegetation
	0	= Total Cover		Present? Yes No
Remarks: (Include photo numbers here or on a separate shee	et.)			ı
	·/			

Soil Sampling Point: W-CBA-011 PEM

Profile Descr	iption: (De	scribe to	the depth	needed to	documen	t the indic	ator or co	onfirm the	absence of indicators	.)	
Depth		Matrix			Re	dox Featu	res				
(inches)	Color (	moist)	%	Color	(moist)	%	Tvpe 1	Loc2	Texture	Remarks	
0-6	10YR	4/2	100						Silt Loam		
6-12	10YR	4/1	85	10YR	3/6	15	C	M	Silt Loam	oxidized rhizosphe	res
									Sile Louin		
<sup>1</sup> Type: C=Cond	centration. [	D=Depletio	n. RM=Red	uced Matrix,	CS=Cove	red or Coate	ed Sand Gr	rains <sup>2</sup> Loca	ation: PL=Pore Lining. N	1=Matrix	
Hydric Soil I	ndicators:								Indicators for Dro	oblematic Hydric Soils <sup>3</sup> :	
Histosol (/				Dar	k Surface (	(S7)					
Histic Epir	pedon (A2)					w Surface (	(S8) (MLRA	147,148)	☐ 2 cm Muck (A	10) (MLRA 147)	
☐ Black Hist						face (S9) (M	. , .		Coast Prairie F		
	Sulfide (A4	)				Matrix (F2)		- /	(MLRA 147,14	-	
	Layers (A5)				leted Matr				☐ Piedmont Floo (MLRA 136, 14	dplain Soils (F19)	
	k (A10) (LRI					urface (F6)				Dark Surface (TF12)	
	Below Dark	-	11\			Surface (F	7)				
	k Surface (A		111)		ox Depress		,		Other (Explain	in Remarks)	
						se Masses (	F12) (I RR	N.			
MLRA 147	ck Mineral ( 7, 148)	51) (LKK I	ν,	MLF	RA 136)	(	) (	,			
	eyed Matrix	(S4)		Um	bric Surfac	e (F13) (ML	RA 136, 1	22)	_		
Sandy Red		(- )		Pied	dmont Floo	dplain Soils	(F19) (ML	.RA 148)	<sup>3</sup> Indicators	of hydrophytic vegetation an	ıd
	Matrix (S6)					aterial (F21)				hydrology must be present, disturbed or problematic.	
	. ,							, ,		·	
Restrictive La	ayer (if ob	served):									
Type:									Undein Cail Beannt	? Yes • No O	
Depth (incl	hes):								Hydric Soil Present	r tes 🙂 No 🔾	
Remarks:											

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

Project/Site: Carrollton-Gable	City/County: Carroll Sampling Date: 14-Nov-18					
Applicant/Owner: AEP	State: OH Sampling Point: W-CBA-011/012 UPL					
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S 4 T 13N - Lee R 5W					
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope:0.5% /0.3 °					
Subregion (LRR or MLRA): MLRA 127 in LRR N Lat.:	40.519643 <b>Long.:</b> -80.989855 <b>Datum:</b> NAD83					
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 percent						
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes NO (If no, explain in Remarks.)					
	ly disturbed? Are "Normal Circumstances" present? Yes   No					
Are Vegetation , Soil , or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)					
Summary of Findings - Attach site map showing s	sampling point locations, transects, important features, etc					
Hydrophytic Vegetation Present? Yes ○ No ●						
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area Yes ○ No ●					
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?					
saddle between S-CBA-013 and S-CBA-014 and upslope of the floodp  Hydrology						
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1)						
High Water Table (A2)  Hydrogen Sulfide (						
	eres along Living Roots (C3) Moss Trim Lines (B16)					
☐ Water Marks (B1) ☐ Presence of Reduction  ☐ Recent Iron Reduction  ☐ Reduction	ced Iron (C4)					
☐ Drift deposits (B3) ☐ Thin Muck Surface						
Algal Mat or Crust (B4)  Other (Explain in R						
☐ Iron Deposits (B5)	Geomorphic Position (D2)					
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)					
Water-Stained Leaves (B9)	Microtopographic Relief (D4)					
Aquatic Fauna (B13)	FAC-neutral Test (D5)					
Field Observations:  Surface Water Present?  Yes No Depth (inches):						
Saturation Present?	Wetland Hydrology Present? Yes ○ No ●					
(Includes capillary Iringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photo	ss, previous inspections), if available:					
Remarks:						
No hydrology observed.						
No flydrology observed.						

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

		Dominant ———————————————————————————————————				Sampling Point: W-CBA-011/012 UPL		
Tree Stratum (Plot size: _	)	Absolute % Cover	R	el.Strat.	Indicator Status	Dominance Test worksheet:		
		0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)		
				0.0%				
				0.0%		Total Number of Dominant Species Across All Strata: 3 (B)		
		_	$\Box$	0.0%		Species Across All Strata:3(B)		
			$\overline{\Box}$	0.0%		Percent of dominant Species		
			П	0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)		
~								
			$\Box$	0.0%		Prevalence Index worksheet:		
8		0	Ш	0.0%		Total % Cover of: Multiply by:		
Sapling-Sapling/Shrub Stra	tum_ (Plot size:	_ ) =	= To	otal Cover		OBL species 0 x 1 = 0		
				0.0%		FACW species $0 \times 2 = 0$		
				0.0%		FAC species $\underline{10}$ x 3 = $\underline{30}$		
<del>-</del> •			$\Box$	0.0%		FACU species $40 \times 4 = 160$		
			$\Box$	0.0%		UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$		
			$\Box$			Column Totals:55_ (A)215_ (B)		
_				0.0%		COTAINIT TOCKTON		
•						Prevalence Index = B/A = 3.909		
				0.0%		Hydrophytic Vegetation Indicators:		
•				0.0%		Rapid Test for Hydrophytic Vegetation		
			$\sqcup$	0.0%		☐ Dominance Test is > 50%		
0		0		0.0%		Prevalence Index is ≤3.0 <sup>1</sup>		
Shrub Stratum (Plot size:	15' radius )	:	= To	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting		
	· ·	15	<b>~</b>	100.0%	FACU	data in Remarks or on a separate sheet)		
				0.0%		Problematic Hydrophytic Vegetation 1 (Explain)		
				0.0%		1 Indicators of hydric soil and wetland hydrology must		
			$\Box$	0.0%		be present, unless disturbed or problematic.		
				0.0%		Definition of Vegetation Strata:		
			П			Four Vegetation Strata:		
				0.0%		Tree stratum – Consists of woody plants, excluding vines, 3		
7		0	Ш	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size: 5'	radius )	15 =	= To	otal Cover		regardless of height.		
1 _ Glechoma hederacea		15	<b>V</b>	37.5%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2 Rumex crispus		10	<b>V</b>	25.0%	FAC	Herb stratum – Consists of all herbaceous (non-woody)		
3 Solidago albopilosa		5		12.5%	UPL	plants, regardless of size, and all other plants less than 3.28		
4. Phytolacca americana				12.5%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
5 Polystichum acrostichoides				12.5%	FACU	ft in height.		
		0	$\overline{\Box}$	0.0%				
			$\Box$	0.0%		Five Vegetation Strata:		
				0.0%		Tree - Woody plants, excluding woody vines, approximately		
						20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
				0.0%		Sapling stratum – Consists of woody plants, excluding		
				0.0%		woody vines, approximately 20 ft (6 m) or more in height and		
1		0	$\sqsubseteq$	0.0%		less than 3 in. (7.6 cm) DBH.		
2		0	Ш	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot s	ize:)	40 =	= T	otal Cover		Herb stratum – Consists of all herbaceous (non-woody)		
		0		0.0%		plants, including herbaceous vines, regardless of size, and		
			$\Box$	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.		
				0.0%		Woody vines – Consists of all woody vines, regardless of		
						height.		
				0.0%				
5				0.0%		Hydrophytic		
6		0	Ш	0.0%		Vegetation Vac Na 🕒		
		0		otal Cover		Present? Yes UNO 🛡		

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

Soil Sampling Point: W-CBA-011/012 UPL

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or co	nfirm the	absence of indicators.)		
Depth	Matrix			lox Featui	es		·		
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks	
0-6	10YR 3/3	100					Silt Loam	40% gravel fill	
<sup>1</sup> Type: C=Conc	entration. D=Depletion	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	d Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=I	Matrix	
Hydric Soil I			· · ·						
Histosol (A			Dark Surface (	57)				ematic Hydric Soils <sup>3</sup> :	
Histic Epip	•		Polyvalue Belov	•	S8) (MI DA	147 149)	2 cm Muck (A10)	(MLRA 147)	
Black Histi			Thin Dark Surfa				Coast Prairie Red	ox (A16)	
	Sulfide (A4)				LIVA 17/, I	. 10)	(MLRA 147,148)		
	Layers (A5)		Loamy Gleyed				Piedmont Floodp		
			Depleted Matrix				(MLRA 136, 147)		
	(A10) (LRR N)		Redox Dark Sui	. ,	1)		☐ Very Shallow Dar	k Surface (TF12)	
	Below Dark Surface (A	11)	Depleted Dark		)		Other (Explain in	Remarks)	
	Surface (A12)		Redox Depress	. ,	-10) (100				
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	Ι,	Iron-Manganes MLRA 136)	e Masses (I	-12) (LRR	N,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)	3		
Sandy Red	lox (S5)		☐ Piedmont Floor	lplain Soils	(F19) (ML	RA 148)	Indicators of wetland by	hydrophytic vegetation and drology must be present,	
Stripped M	latrix (S6)		Red Parent Ma	terial (F21)	(MLRA 12	7, 147)		sturbed or problematic.	
	yer (if observed):								
Type:							Hydric Soil Present?	Yes O No •	
Depth (inch	nes):						Tryuric Son Present:	165 UNU ©	
Remarks:									

Wetland 34		Rater(s): C. ASHBAU	JGH/B.MILLER	Date:	11/14/2018
max 6 pts	1 1 subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)	<b>W-CBA-011 PEM</b> 0.1 acres		
	5 6	x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and surre	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only on WIDE. Buffers average 50m (164ft) or more around w MEDIUM. Buffers average 25m to <50m (82 to <164ft NARROW. Buffers average 10m to <25m (32ft to <82 x VERY NARROW. Buffers average <10m (<32ft) around the selection of the selec	vetland perimeter (7) t) around wetland perimeter (4) ft) around wetland perimeter (1) nd wetland perimeter (0)	wet	
	E	2b. Intensity of surrounding land use. Select one of VERY LOW. 2nd growth or older forest, prairie, savar X LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, part HIGH. Urban, industrial, open pasture, row cropping, it	nah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow field. (3)		
14.	.0 20	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3)  X Precipitation (1) Seasonal/Intermittent surface water (3) X Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sco. None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch point s tile filling/g dike road b weir dredgii stormwater input Other:	on use (1) mplex (1)  Score one or dbl check ted (4)  2in) (1)  ource (nonstormwater) rrading ed/RR track	<b>k</b> .
	8 28	Metric 4. Habitat Alteration and D	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double cf  X None or none apparent (4)  Recovered (3)  Recovering (2)  Recent or no recovery (1)  4b. Habitat development. Select only one and assi  Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  Poor to fair (2)  X Poor (1)  4c. Habitat alteration. Score one or double check and the secovered (6)  X Recovering (3)  Recent or no recovery (1)	and average.  Check all disturbances observed  X mowing X shrub/s  grazing herbac  X clearcutting selective cutting dredging  woody debris removal farming		al

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

W-CBA-011 PEM | W-CBA-011 PEM\_Field 3/8/2019

Wetland 3	4	Rater(s): C. ASHBAI	JGH/B.MILLER	Date:	11/14/2018
	28	3	W-CBA-011 PEM		
	subtotal thi	<b>-</b>			
max 10 pts.	subtotal	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang	logy (10) yy (5)		
		Significant migratory songbird/water fowl habitat or us Category 1 Wetland. See Question 5 Qualitative Ratin			
	-2 20	Metric 6. Plant communities, inte	rspersion, microtopogr	aphy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.  Aquatic bed  Emergent Shrub Forest Mudflats Open water Other 6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Moderately low (2) X Low (1) None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage  X Extensive >75% cover (-5)	Vegetation Communit  Absent or comprises <0.1ha ( Present and either comprises vegetation and is of moderate significant part but is of low qu.  Present and either comprises vegetation and is of moderate part and is of high quality  Present and comprises significate and comprises significate part and is of high quality  Narrative Description of Veg. Low spp diversity and/or predictive spp are dominant compatitive spp are dominant compatitive spp are dominant compatitive spp are dominant compatitive spp and present, and specimoderately high, but generally threatened or endangered spp. A predominance of native spe and/or disturbance tolerant native spe	0.2471 acres) contiguous area small part of wetland's 1 equality, or comprises a uality significant part of wetland's 2 equality or comprises a small cant part, or more, of wetland's 2 equality or comprises a small cant part, or more, of wetland's ity getation Quality ominance of nonnative or low ecies ponent of the vegetation, mod turbance tolerant native sppcies diversity moderate to wwo presence of rare or to ecies, with nonnative spp high	s 3
Category 1	26 GRAN	Moderate 25-75% cover (-3) Sparse 5-25% cover (-1) Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 1 Vegetated hummucks/fussucks Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools	absent, and high spp diversity the presence of rare, threaten  Mudflat and Open Water Cla  Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.4  Moderate 1 to <4ha (2.47 to 9) High 4ha (9.88 acres) or more  Microtopography Cover Sca  Absent Present very small amounts o of marginal quality Present in moderate amounts quality or in small amounts of  Present in moderate or greate	r and often, but not always, led, or endangered spp  ass Quality  7 acres) 2.88 acres) 3.89 ale or if more common 4, but not of highest highest quality	

W-CBA-011 PEM | W-CBA-011 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 34

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing North



#### Wetland 34

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 34

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing South



#### Wetland 34

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 34

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Soil Pit



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

Project/Site: Carrollton-Gable		City/County: Carroll	Sampling Date: 14-Nov-18
Applicant/Owner: AEP		State: OH Samplin	g Point: W-CBA-012 PEM
Investigator(s): C.Ashbaugh, B.Miller		Section, Township, Range: S	4 <b>T</b> 13N - Lee <b>R</b> 5
Landform (hillslope, terrace, etc.): Fig	oodplain L	Local relief (concave, convex, r	none): concave Slope: 5.0% / 2.9
Subregion (LRR or MLRA): MLRA 127	in I RR N Lat.:	40.519758 <b>Lor</b>	g.: -80.990287
Soil Map Unit Name: BkE; Berks channe			classification: R4SBC
Are climatic/hydrologic conditions on the	e site typical for this time of ve	ar? Yes • No O (If no.	explain in Remarks.)
	r Hydrology  significantly		Circumstances" present? Yes  No
	r Hydrology 🔲 naturally pr		explain any answers in Remarks.)
Summary of Findings - Attac	ch site map showing s		ns, transects, important features, etc
	es O No O		· · · · · · · · · · · · · · · · · · ·
Hydric Soil Present? Ye	es   No	Is the Sampled Area	
,	es   No	within a Wetland?	Yes   No
Sparsely vegetated concave surface PE slope and is fed by multiple groundwate			am S-CBA-012. Wetland is located at the toe of depression.
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one re	equired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants	(B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfide O	dor (C1)	Drainage Patterns (B10)
Saturation (A3)	✓ Oxidized Rhizospher	res along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduce	• •	Dry Season Water Table (C2)
Sediment Deposits (B2)		ion in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (	` '	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	U Other (Explain in Re	emarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imagery (B	7)		Geomorphic Position (D2)
Water-Stained Leaves (B9)	7)		Shallow Aquitard (D3)
Aquatic Fauna (B13)			☐ Microtopographic Relief (D4)  FAC-neutral Test (D5)
Field Observations:			FAC-fleutidi Test (D3)
	No Depth (inches):	1	
_	No Depth (inches):		
	No Depth (inches):		rology Present? Yes  No
Describe Recorded Data (stream gauge	, monitoring well, aerial photos	s, previous inspections), if avail	able:
Remarks:			
Primary source of hydrology is multiple	aroundwater coass lessted in	the hilleide	
Primary source or hydrology is multiple	groundwater seeps located in i	ure minside.	

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

			ominant	Sampling Point: W-CBA-012 PEM		
Tree Stratum (Plot size:)	Absolute % Cover	Re	pecies? ————————————————————————————————————	Sommance rest worksheet.		
1	0		0.0%	Number of Dominant Species That are OBL, FACW, or FAC: (A)		
>			0.0%			
3			0.0%	Total Number of Dominant Species Across All Strata: 2 (B)		
		$\Box$	0.0%	Species Across All Strata: (B)		
		$\Box$	0.0%	Percent of dominant Species		
		$\Box$	0.0%	That Are OBL, FACW, or FAC: 100.0% (A/B)		
		$\Box$	0.0%	Provelence Index weedsheets		
			0.0%	Prevalence Index worksheet:  Total % Cover of: Multiply by:		
		 _ T				
apling-Sapling/Shrub Stratum (Plot size:	=	= 10	otal Cover	OBL species $\underline{25}$ x 1 = $\underline{25}$		
			0.0%	FACW species $10 \times 2 = 20$		
			0.0%	FAC species $0 \times 3 = 0$		
			0.0%	FACU species $\frac{5}{}$ x 4 = $\frac{20}{}$		
		$\Box$	0.0%	UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$		
		$\Box$	0.0%			
i		$\Box$	0.0%	Prevalence Index = B/A = 2.000		
			0.0%			
•		$\Box$	0.0%	Hydrophytic Vegetation Indicators:		
		$\Box$	0.0%	Rapid Test for Hydrophytic Vegetation		
			0.0%	✓ Dominance Test is > 50%		
		_		Prevalence Index is ≤3.0 ¹		
hrub Stratum (Plot size:)		= 10	otal Cover	Morphological Adaptations 1 (Provide supporting		
		$\sqcup$	0.0%	data in Remarks or on a separate sheet)		
	0		0.0%	Problematic Hydrophytic Vegetation (Explain)		
		Ш	0.0%	1 Indicators of hydric soil and wetland hydrology must		
	_		0.0%	be present, unless disturbed or problematic.		
	0		0.0%	Definition of Vegetation Strata:		
			0.0%	Four Vegetation Strata:		
	0		0.0%	Tree stratum – Consists of woody plants, excluding vines, 3		
lerb Stratum (Plot size: <u>5' radius</u> )	0 =	= To	otal Cover	<ul> <li>in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.</li> </ul>		
Symplocarpus foetidus	25	<b>V</b>	55.6% OBL	Sapling/shrub stratum – Consists of woody plants, excluding		
Agrimonia microcarpa		$\Box$	11.1% UPL	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody)		
Lysimachia nummularia		✓	22.2% FACW	plants, regardless of size, and all other plants less than 3.28		
Polystichum acrostichoides			11.1% FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
			0.0%	ft in height.		
		$\Box$	0.0%	_		
				Five Vegetation Strata:		
•			0.0%	Tree - Woody plants, excluding woody vines, approximately		
			0.0%	20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
			0.0%	Sapling stratum – Consists of woody plants, excluding		
			0.0%	woody vines, approximately 20 ft (6 m) or more in height and		
			0.0%	less than 3 in. (7.6 cm) DBH.		
	0		0.0%	Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Voody Vine Stratum (Plot size:)	45 :	= To	otal Cover	Herb stratum – Consists of all herbaceous (non-woody)		
	0		0.0%	plants, including herbaceous vines, regardless of size, and		
			0.0%	<ul> <li>woody species, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>		
			0.0%	Woody vines - Consists of all woody vines, regardless of		
			0.0%	height.		
•						
			0.0%	- Hydrophytic		
)		Ш	0.0%	Vegetation Present? Yes ● No ○		
	0	= T	otal Cover	Fresent:		

Soil Sampling Point: W-CBA-012 PEM

Profile Descri	iption: (De	scribe to	the depth	needed to	documen	t the indi	cator or co	nfirm the	absence of indicato	ors.)			
Depth Matrix Redox Features													
(inches)	Color	(moist)	<u>%</u>	Color	(moist)	%	Tvpe 1	Loc2	Texture	Rer	marks		
0-8	10YR	4/2	95	10YR	4/6	5	С	М	Silt Loam				
8-12	10YR	4/1	75	10YR	4/6	25	С	PL	Silt Loam	oxidized	rhizospheres		
12-16	10YR	4/1	75	10YR	3/6	25		PL	Silt Loam	oxidized	rhizospheres		
		-,-		20111					0.11 2.00.11				
		_											
										'			
1 Type: C=Cond	centration I	D=Denletic	n RM=Red	uced Matrix	CS=Cove	red or Coat	ed Sand Gr	ains 21 oc	ation: PL=Pore Lining	ı M=Matriy			
* *		•	JII. KIII–Keu	uceu mainx,	C3=C0VE	eu oi coat	eu Sanu Gi	allis -Loc		•			
Hydric Soil I				□ p	l. C	(67)			Indicators for I	Problematic Hydr	ic Soils <sup>3</sup> :		
Histosol (A	•				k Surface (	,	(CO) (MI DA	147 140)	2 cm Muck	(A10) (MLRA 147)			
Black Histi	pedon (A2)						(S8) (MLRA MLRA 147,∶		Coast Prairie	e Redox (A16)			
	Sulfide (A4	`						140)	(MLRA 147,	148)			
	Layers (A5)				ny Gieyed leted Matri	Matrix (F2)	)			loodplain Soils (F19	9)		
						ırface (F6)			(MLRA 136,	-			
	k (A10) (LR		443			Surface (F6)	7)			w Dark Surface (TF	12)		
	Below Dark		A11)		ox Depress	•	7)		Other (Expl	ain in Remarks)			
	k Surface (A	,				. ,	(F12) (LRR	N					
□□ Sandy Mu MLRA 147	ck Mineral ( ', 148)	S1) (LRR I	ν,	MLF	A 136)	oc 11035C3 (	(1 12) (LIXIX	11,					
	yed Matrix	(S4)		Um	oric Surfac	e (F13) (MI	LRA 136, 12	22)					
Sandy Red		(- ')		Pied	lmont Floo	dplain Soils	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,				
Stripped M				Red	Parent Ma	terial (F21	) (MLRA 12	7. 147)		na nyarology must ess disturbed or pro			
• • • • • • • • • • • • • • • • • • • •						(	, (	-, ,	1				
Restrictive La	ayer (if ob	served):											
Type:									Unidaia Cail Duana	ent? Yes •	No O		
Depth (inch	nes):								Hydric Soil Prese	int? Yes 🕓	NO U		
Remarks:													

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

Project/Site: Carrollton-Gable	City/County: Carroll Sampling Date: 14-Nov-18					
Applicant/Owner: AEP	State: OH Sampling Point: W-CBA-011/012 UPL					
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S 4 T 13N - Lee R 5W					
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope:0.5% /0.3 °					
Subregion (LRR or MLRA): MLRA 127 in LRR N Lat.:	40.519643 <b>Long.:</b> -80.989855 <b>Datum:</b> NAD83					
Soil Map Unit Name: BkE; Berks channery silt loam, 25 to 35 percent						
Are climatic/hydrologic conditions on the site typical for this time of ye	ear? Yes NO (If no, explain in Remarks.)					
	ly disturbed? Are "Normal Circumstances" present? Yes   No					
Are Vegetation , Soil , or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)					
Summary of Findings - Attach site map showing s	sampling point locations, transects, important features, etc					
Hydrophytic Vegetation Present? Yes ○ No ●						
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area Yes ○ No ●					
Wetland Hydrology Present? Yes ○ No ●	within a Wetland?					
saddle between S-CBA-013 and S-CBA-014 and upslope of the floodp  Hydrology						
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of two required)					
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)					
Surface Water (A1)						
High Water Table (A2)  Hydrogen Sulfide (						
	eres along Living Roots (C3) Moss Trim Lines (B16)					
☐ Water Marks (B1) ☐ Presence of Reduction  ☐ Recent Iron Reduction  ☐ Reduction	ced Iron (C4)					
☐ Drift deposits (B3) ☐ Thin Muck Surface						
Algal Mat or Crust (B4)  Other (Explain in R						
☐ Iron Deposits (B5)	Geomorphic Position (D2)					
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)					
Water-Stained Leaves (B9)	Microtopographic Relief (D4)					
Aquatic Fauna (B13)	FAC-neutral Test (D5)					
Field Observations:  Surface Water Present?  Yes No Depth (inches):						
Saturation Present?	Wetland Hydrology Present? Yes ○ No ●					
(Includes capillary Iringe)						
Describe Recorded Data (stream gauge, monitoring well, aerial photo	ss, previous inspections), if available:					
Remarks:						
No hydrology observed.						
No flydrology observed.						

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

		Dominant ———————————————————————————————————				Sampling Point: W-CBA-011/012 UPL		
Tree Stratum (Plot size: _	)	Absolute % Cover	R	el.Strat.	Indicator Status	Dominance Test worksheet:		
		0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1(A)		
				0.0%				
				0.0%		Total Number of Dominant Species Across All Strata: 3 (B)		
		_		0.0%		Species Across All Strata:3(B)		
			$\overline{\Box}$	0.0%		Percent of dominant Species		
			П	0.0%		That Are OBL, FACW, or FAC: 33.3% (A/B)		
~								
			$\Box$	0.0%		Prevalence Index worksheet:		
8		0	Ш	0.0%		Total % Cover of: Multiply by:		
Sapling-Sapling/Shrub Stra	tum_ (Plot size:	_ ) =	= To	otal Cover		OBL species 0 x 1 = 0		
				0.0%		FACW species $0 \times 2 = 0$		
				0.0%		FAC species $\underline{10}$ x 3 = $\underline{30}$		
<del>-</del> •			$\Box$	0.0%		FACU species $40 \times 4 = 160$		
			$\Box$	0.0%		UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$		
			$\Box$			Column Totals:55_ (A)215_ (B)		
_				0.0%		COTAINIT TOCKTON		
•						Prevalence Index = B/A = 3.909		
				0.0%		Hydrophytic Vegetation Indicators:		
•				0.0%		Rapid Test for Hydrophytic Vegetation		
			$\sqcup$	0.0%		☐ Dominance Test is > 50%		
0		0		0.0%		Prevalence Index is ≤3.0 <sup>1</sup>		
Shrub Stratum (Plot size:	15' radius )	:	= To	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting		
	· ·	15	<b>~</b>	100.0%	FACU	data in Remarks or on a separate sheet)		
				0.0%		Problematic Hydrophytic Vegetation 1 (Explain)		
				0.0%		1 Indicators of hydric soil and wetland hydrology must		
			$\Box$	0.0%		be present, unless disturbed or problematic.		
				0.0%		Definition of Vegetation Strata:		
			П			Four Vegetation Strata:		
				0.0%		Tree stratum – Consists of woody plants, excluding vines, 3		
7		0	Ш	0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),		
Herb Stratum (Plot size: 5'	radius )	15 =	= To	otal Cover		regardless of height.		
1 _ Glechoma hederacea		15	<b>V</b>	37.5%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
2 Rumex crispus		10	<b>V</b>	25.0%	FAC	Herb stratum – Consists of all herbaceous (non-woody)		
3 Solidago albopilosa		5		12.5%	UPL	plants, regardless of size, and all other plants less than 3.28		
4. Phytolacca americana				12.5%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28		
5 Polystichum acrostichoides				12.5%	FACU	ft in height.		
		0	$\overline{\Box}$	0.0%				
			$\Box$	0.0%		Five Vegetation Strata:		
				0.0%		Tree - Woody plants, excluding woody vines, approximately		
						20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).		
				0.0%		Sapling stratum – Consists of woody plants, excluding		
				0.0%		woody vines, approximately 20 ft (6 m) or more in height and		
1		0	$\sqsubseteq$	0.0%		less than 3 in. (7.6 cm) DBH.		
2		0	Ш	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.		
Woody Vine Stratum (Plot s	ize:)	40 =	= T	otal Cover		Herb stratum – Consists of all herbaceous (non-woody)		
		0		0.0%		plants, including herbaceous vines, regardless of size, and		
			$\Box$	0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.		
				0.0%		Woody vines – Consists of all woody vines, regardless of		
						height.		
				0.0%				
5				0.0%		Hydrophytic		
6		0	Ш	0.0%		Vegetation Vac Na 🕒		
		0		otal Cover		Present? Yes UNO 🛡		

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

Soil Sampling Point: W-CBA-011/012 UPL

Profile Descri	ption: (Describe to	the depth ne	eded to document	the indic	ator or co	nfirm the	absence of indicators.)		
Depth	Matrix			lox Featui	es		·		
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks	
0-6	10YR 3/3	100					Silt Loam	40% gravel fill	
<sup>1</sup> Type: C=Conc	entration. D=Depletion	n. RM=Reduce	d Matrix, CS=Covere	ed or Coate	d Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=I	Matrix	
Hydric Soil I			· · ·						
Histosol (A			Dark Surface (	57)				ematic Hydric Soils <sup>3</sup> :	
Histic Epip	•		Polyvalue Belov	•	S8) (MI DA	147 149)	2 cm Muck (A10)	(MLRA 147)	
Black Histi			Thin Dark Surfa				Coast Prairie Red	ox (A16)	
	Sulfide (A4)				LIVA 17/, I	. 10)	(MLRA 147,148)		
	Layers (A5)		Loamy Gleyed				Piedmont Floodp		
			Depleted Matrix				(MLRA 136, 147)		
	(A10) (LRR N)		Redox Dark Sui	. ,	1)		☐ Very Shallow Dar	k Surface (TF12)	
	Below Dark Surface (A	11)	Depleted Dark		)		Other (Explain in	Remarks)	
	Surface (A12)		Redox Depress	. ,	-10) (100				
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N , 148)	Ι,	Iron-Manganes MLRA 136)	e Masses (I	-12) (LRR	N,			
Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	22)	3		
Sandy Red	lox (S5)		☐ Piedmont Floor	lplain Soils	(F19) (ML	RA 148)	Indicators of wetland by	hydrophytic vegetation and drology must be present,	
Stripped M	latrix (S6)		Red Parent Ma	terial (F21)	(MLRA 12	7, 147)		sturbed or problematic.	
	yer (if observed):								
Type:							Hydric Soil Present?	Yes O No •	
Depth (inch	nes):						Tryuric Son Present:	165 UNU ©	
Remarks:									

Wetland 35	Rater(s): C. ASHBA	UGH/B.MILLER	Date:	11/14/2018
0	0 Metric 1. Wetland Area (size).	W-CBA-012 PEM		
max 6 pts subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  x <0.1 acres (0.04ha) (0 pts)	0.021 acres		
9	9 Metric 2. Upland buffers and sur	rounding land use.		
max 14 pts. subtota	2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around x MEDIUM. Buffers average 25m to <50m (82 to <164 NARROW. Buffers average 10m to <25m (32ft to <8 VERY NARROW. Buffers average <10m (<32ft) around	wetland perimeter (7) lft) around wetland perimeter (4) 82ft) around wetland perimeter (1)	sk.	
	2b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, sava X LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, p HIGH. Urban, industrial, open pasture, row cropping,	nnah, wildlife area, etc. (7) d growth torest. (5) park, conservation tillage, new fallow field. (3	3)	
20.0	29 Metric 3. Hydrology.			
max 30 pts. subtota	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  X Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select one.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. S  X None or none apparent (12)  Recovering (3)  Recent or no recovery (1)  Metric 4. Habitat Alteration and E	Check all disturbances observed ditch tile dike weir stormwater input  Check all disturbances observed poir fillin dire fillin dre dre Oth	man use (1) complex (1) l) on. Score one or dbl checturated (4) n (12in) (1) nt source (nonstormwater) ng/grading d bed/RR track dging	k.
	4a. Substrate disturbance. Score one or double of the state of the sta	sign score.  and average. Check all disturbances observed mowing grazing clearcutting selective cutting woody debris removal farr	ub/sapling removal baceous/aquatic bed remo imentation dging ning rient enrichment	val

W-CBA-012 PEM | W-CBA-012 PEM\_Field 3/8/2019

Wetland 35	5	Rater(s): C. ASHBAI	UGH	I/B.MILLER	Date:	11/14/2018
	45	I		W-CBA-012 PEM		
	subtotal this	•				
		•	atad			
max 10 pts.	subtotal	Check all that apply and score as indicated Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang Significant migratory songbird/water fowl habitat or us Category 1 Wetland. See Question 5 Qualitative Ratio	ology (1 gy (5) gered : sage (1	10) species (10) 10)		
	5 50	Metric 6. Plant communities, inte	• •			
max 20pts.	3 30 subtotal	6a. Wetland Vegetation Communities.	rspe	Vegetation Community Cov		
max zopto.	oubtotal	Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a	cres) contiguous area	
		Aquatic bed  1 Emergent Shrub	1	Present and either comprises small pa vegetation and is of moderate quality, significant part but is of low quality		
		Forest	2	Present and either comprises significal	nt part of wetland's 2	
		Mudflats		vegetation and is of moderate quality of	r comprises a small	
		Open water Other	3	part and is of high quality  Present and comprises significant part	or more of wetland's	3
		6b. horizontal (plan view) Interspersion.	Ü	vegetation and is of high quality	, or more, or menana o	
		Select only one. High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)		Native spp are dominant component of		
		x Low (1) None (0)		although nonnative and/or disturbance can also be present, and species diver		
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres	•	
		Table 1 ORAM long form for list. Add		threatened or endangered spp to	0.100 0.1010	
		or deduct points for coverage		A predominance of native species, with	n nonnative spp high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp	absent or virtually	
		Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or en	dangered spp	
		Nearly absent <5% cover (0)		Mudflet and Onen Water Class Ougl	:4	
		x Absent (1) 6d. Microtopography.	٥	Mudflat and Open Water Class Qual Absent <0.1ha (0.247 acres)	ity	
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 acres)		
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh				
		1 Amphibian breeding pools		Microtopography Cover Scale		
				Absent		
			1	Present very small amounts or if more of marginal quality	common	
			2	Present in moderate amounts, but not	of highest	
Category 2			-	quality or in small amounts of highest of		
	50 GRAND	TOTAL(max 100 pts)	3	Present in moderate or greater amoun		
				and of highest quality		

W-CBA-012 PEM | W-CBA-012 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 35

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing North



#### Wetland 35

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

Wetland 35

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing South



#### Wetland 35

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 35

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Soil Pit



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

Project/Site: Carrollton-Gable	City/County: Carroll	Sampling Date: 14-Nov-18
Applicant/Owner: AEP	State: OH Samplin	g Point: W-CBA-013 PEM
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S	4 <b>T</b> 13N - Lee <b>R</b> 5W
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, convex, r	none): concave Slope: 4.0% / 2.3 °
Subregion (LRR or MLRA): MLRA 127 in LRR N		ng.: -80.985897
Soil Map Unit Name: WmD; Westmoreland-Coshocton		classification: PUBGh
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 ✓	7	Circumstances" present? Yes   No
Are Vegetation . , Soil . , or Hydrology	1	explain any answers in Remarks.)
Summary of Findings - Attach site map	showing sampling point location	ns, transects, important features, etc
Hydrophytic Vegetation Present? Yes   No		
Hydric Soil Present? Yes ● No ○	Is the Sampled Area	Yes   No
Wetland Hydrology Present? Yes • No •	within a Wetland?	Yes  No
Hydrology		
Wetland Hydrology Indicators:		_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check a	ll that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	ue Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	drogen Sulfide Odor (C1)	Drainage Patterns (B10)
	tidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
	esence of Reduced Iron (C4)	Dry Season Water Table (C2)
	cent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	in Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
l —	her (Explain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imagery (B7)		Geomorphic Position (D2) Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		The ficulturinest (23)
	Depth (inches):	
	Depth (inches): 10	
Saturation Present? (includes capillary fringe) Yes  No	Depth (inches): 0 Wetland Hydi	rology Present? Yes   No
Describe Recorded Data (stream gauge, monitoring we	II, aerial photos, previous inspections), if avail	able:
Remarks:		
Primary source of hydrology is surface water collection		
Trimary source or rightology is surface water collection		

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

			ominant		Sampling Point: W-CBA-013 PEM
Tree Stratum (Plot size:)	Absolute % Cover	R	ci.ou.uc.	Indicator Status	Dominance Test worksheet:
, , , , , , , , , , , , , , , , , , ,	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
1 2		П	0.0%		That are obt, facw, of fac.
z. 3.		П	0.0%		Total Number of Dominant
		$\Box$	0.0%		Species Across All Strata: (B)
4		$\Box$	0.0%		Percent of dominant Species
5		П	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6			0.0%		Prevalence Index worksheet:
7		$\Box$	0.0%		Total % Cover of: Multiply by:
8		— - <b>Т</b> -			
Sapling-Sapling/Shrub Stratum (Plot size:	_) =	= 10	otal Cover		OBL species <u>15</u> x 1 = <u>15</u>
			0.0%		FACW species $15 \times 2 = 30$
2			0.0%		FAC species $0 \times 3 = 0$
3.			0.0%		FACU species $0 \times 4 = 0$
4			0.0%		UPL species $0 \times 5 = 0$
5.	•		0.0%		Column Totals: 30 (A) 45 (B)
3. 3			0.0%		Prevalence Index = B/A = 1.500
7.			0.0%		
3		$\Box$	0.0%		Hydrophytic Vegetation Indicators:
9		$\Box$	0.0%		✓ Rapid Test for Hydrophytic Vegetation
		$\Box$	0.0%		✓ Dominance Test is > 50%
0			otal Cover		<b>V</b> Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= 10			Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		Problematic Hydrophytic Vegetation (Explain)
3	0	Ц	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	0	Ш	0.0%		
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u> )	=	= T	otal Cover		regardless of height.
1. Typha angustifolia	0		0.0%	OBL	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Epilobium coloratum	10	<b>V</b>	33.3%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3. Carex Iurida	15	<b>V</b>	50.0%	OBL	plants, regardless of size, and all other plants less than 3.28 ft tall.
1. Juncus effusus	5		16.7%	FACW	Woody vines – Consists of all woody vines greater than 3.28
5	0		0.0%		ft in height.
3	0		0.0%		Five Vegetation Strata:
7.	0		0.0%		_
3	0		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9			0.0%		diameter at breast height (DBH).
)			0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
1			0.0%		less than 3 in. (7.6 cm) DBH.
2.	0	$\Box$	0.0%		Shrub stratum – Consists of woody plants, excluding woody
	30 =	 = To	otal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)  1	0		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
ı 2			0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3			0.0%		Woody vines – Consists of all woody vines, regardless of
	_		0.0%		height.
4					
5			0.0%		Hydrophytic
6		Ш	0.0%		Vegetation Present? Yes No
	0	= T	otal Cove	•	rieschi:

Soil Sampling Point: W-CBA-013 PEM

Profile Descr	iption: (De	escribe to	the depth	needed to	documer	nt the indi	cator or co	onfirm the	absence of indicators.)				
Depth		Matrix			Re	edox Featu							
(inches)		(moist)	%		(moist)	%	Tvpe 1	Loc2	Texture	Rem	arks		
0-4	10YR	4/2	80	10YR	4/6	20	C	PL	Silt Loam				
4-6	10YR	3/1	100						Silty Clay Loam				
6-10	10YR	4/1	75	10YR	3/6	25	С	PL, M	Silty Clay Loam				
10-16	10YR	3/1	80	10YR	3/6	25	С	PL, M	Clay Loam				
						_							
* * *			on. RM=Red	duced Matrix,	CS=Cove	red or Coat	ed Sand Gr	rains <sup>2</sup> Loc	ration: PL=Pore Lining. M=N				
Hydric Soil I						(07)			Indicators for Proble	ematic Hydri	c Soils <sup>3</sup> :		
Histosol (	,				k Surface	. ,	(CO) (MI DA	147 140)	2 cm Muck (A10)	(MLRA 147)			
Black Hist	pedon (A2) tic (A3)			_		ow Surface face (S9) (I			Coast Prairie Redo	ox (A16)			
Hydrogen	Sulfide (A4	•		Loai	my Gleyed	Matrix (F2		,	(MLRA 147,148)  Piedmont Floodpl	ain Soils (F19)	)		
	Layers (A5)				leted Matr	. ,			(MLRA 136, 147)	, ,			
	k (A10) (LR Below Dark	-	A11)			urface (F6) « Surface (F			Very Shallow Dar		.2)		
	k Surface (A	•	/			sions (F8)	•		Uther (Explain in Remarks)				
Sandy Mu MLRA 147	ıck Mineral ( 7, 148)	(S1) (LRR	N,	Iron MLR	-Mangane (A 136)	se Masses	(F12) (LRR	N,					
l	eyed Matrix	(S4)				ce (F13) (M			<sup>3</sup> Indicators of	hydrophytic ye	agetation and		
Sandy Re						odplain Soil			<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.				
	Matrix (S6)			Red	Parent M	aterial (F21	) (MLRA 12	(7, 147)	uniess dis	sturbed or pro	biernatic.		
Restrictive La													
Depth (inc									Hydric Soil Present?	Yes 💿	No O		
Remarks:	,												
i tomani													

Upland 36, 37

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

Project/Site: Carrollton-Gable			City/Count	y: Carroll			Sampling Date	: 14-Nov-18	
Applicant/Owner: AEP			State: OH	Samplin	ng Poi	nt:	W-CBA-013	/014 UPL	
Investigator(s): C.Ashbaugh, B.Miller			Section, To	ownship, Range: S	4	T 1	I3N - Lee		<b>R</b> 5W
Landform (hillslope, terrace, etc.):	Hillside		ocal relief (	concave, convex, r	none):	: none	Slope:	8.0% /	4.6 °
Subregion (LRR or MLRA): MLRA 1	27 in LRR	N lat: 4	40.516488	Lon	na · .	-80.985837		Datum: NAD	
Soil Map Unit Name: WmD; Westmo					_	ification: N			
Are climatic/hydrologic conditions on						ain in Remar			
								s • No	$\supset$
	, or Hydrol			Are "Normal	I Circu	ımstances" p	resent?		_
Are Vegetation, Soil	, or Hydrol	ogy    naturally pro	oblematic?	(If needed,	expla	in any answe	ers in Remarks.	)	
<b>Summary of Findings - Att</b>	ach site	e map showing sa	ampling	point location	ns, t	ransects	, important	t feature:	s, etc
Hydrophytic Vegetation Present?	Yes O	No •							
Hydric Soil Present?	Yes 🔾	No •	Is t	he Sampled Area		○ No ●			
Wetland Hydrology Present?	Yes 🔾	No •		hin a Wetland?	Yes	∪ No ⊎			
Upland sample point associated with soybean field.	wetlands '	W-CBA-013 PEM and W	-CBA-014 P	EM. Upland sampl	le poir	nt located or	n hillside at edgo	e of active	
Hydrology									
Wetland Hydrology Indicators:  Primary Indicators (minimum of one	required:	check all that annly)					ors (minimum of t	wo reauired)	_
Surface Water (A1)	required,	True Aquatic Plants	(R14)			Surface Soil Cr	acks (Bo) ated Concave Sui	rface (BQ)	
High Water Table (A2)		Hydrogen Sulfide Oc				Drainage Patte		nace (DO)	
Saturation (A3)		Oxidized Rhizospher	` '	na Roots (C3)		Moss Trim Line	. ,		
☐ Water Marks (B1)		Presence of Reduced	-	,			ater Table (C2)		
Sediment Deposits (B2)		Recent Iron Reduction	on in Tilled S	oils (C6)		Crayfish Burro	ws (C8)		
Drift deposits (B3)		Thin Muck Surface (	C7)			Saturation Visi	ble on Aerial Imag	gery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Re	marks)			Stunted or Stre	essed Plants (D1)		
☐ Iron Deposits (B5)						Geomorphic Po	osition (D2)		
Inundation Visible on Aerial Imagery	(B7)					Shallow Aquita	rd (D3)		
Water-Stained Leaves (B9)					r	Microtopograp	hic Relief (D4)		
Aquatic Fauna (B13)					F	FAC-neutral Te	est (D5)		
Field Observations: Surface Water Present?  Yes	No •								
_		Depth (inches):		_					
Water Table Present? Yes	No 💿	Depth (inches):		Wetland Hydi	rology	, Drocont?	Yes O No	<b>o</b>	
Saturation Present? (includes capillary fringe)  Yes	No 💿	Depth (inches):			Tology	y Fresent:	105 0 11		
Describe Recorded Data (stream gau	ge, monito	oring well, aerial photos,	, previous ir	nspections), if avail	lable:				
Remarks:									
No hydrology observed.									

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

			ominant	Sampling Point: W-CBA-013/014 UPL
Tree Stratum (Plot size:)	Absolute % Cover	Re	ecies? ————————————————————————————————————	Dominance rest Worksheet
1	0		0.0%	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
)			0.0%	
			0.0%	Total Number of Dominant
		$\Box$	0.0%	Species Across All Strata: (B)
•		$\overline{\Box}$	0.0%	Percent of dominant Species
		$\Box$	0.0%	That Are OBL, FACW, or FAC: 50.0% (A/B)
•		Η.		
•		Η.	0.0%	Prevalence Index worksheet:
		Ш,	0.0%	Total % Cover of: Multiply by:
apling-Sapling/Shrub Stratum (Plot size:	) =	= To	otal Cover	OBL species
			0.0%	FACW species $0 \times 2 = 0$
			0.0%	FAC species $40 \times 3 = 120$
•		$\Box$	0.0%	FACU species $50 \times 4 = 200$
	•	$\Box$	0.0%	UPL species $\frac{10}{10}$ x 5 = $\frac{50}{10}$
		$\Box$	0.0%	Column Totals: 100 (A) 370 (B)
			0.0%	Cordini rocars.
		$\Box$	0.0%	Prevalence Index = B/A = 3.700
		$\Box$	0.0%	Hydrophytic Vegetation Indicators:
		Η.	0.0%	Rapid Test for Hydrophytic Vegetation
		$\Box$		☐ Dominance Test is > 50%
		Ш.	0.0%	Prevalence Index is ≤3.0 <sup>1</sup>
hrub Stratum (Plot size:)	=	= To	otal Cover	Morphological Adaptations 1 (Provide supporting
	0		0.0%	data in Remarks or on a separate sheet)
•			0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
			0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
•			0.0%	be present, unless disturbed or problematic.
		$\Box$	0.0%	Definition of Vegetation Strata:
		$\Box$	0.0%	Four Vegetation Strata:
		$\Box$	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3
•			otal Cover	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
lerb Stratum (Plot size: <u>5' radius</u> )		_	otal Covel	Sapling/shrub stratum – Consists of woody plants, excluding
_ Setaria pumila ssp. pumila		✓.	40.0% FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
_ Solidago altissima		✓.	20.0% FACU	Herb stratum – Consists of all herbaceous (non-woody)
Glechoma hederacea	15		15.0% FACU	plants, regardless of size, and all other plants less than 3.28
Cirsium arvense	15		15.0% FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
Daucus carota	10		10.0% UPL	ft in height.
	0		0.0%	Five Vegetation Strate
			0.0%	Five Vegetation Strata:
			0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
•		$\Box$	0.0%	diameter at breast height (DBH).
		$\Box$		Sapling stratum – Consists of woody plants, excluding
			0.0%	woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	0	$\square$	0.0%	Shrub stratum – Consists of woody plants, excluding woody
		Ц,	0.0%	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Voody Vine Stratum (Plot size:)	100 =	= To	otal Cover	Herb stratum – Consists of all herbaceous (non-woody)
			0.0%	plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
	0		0.0%	3 ft (1 m) in height.
			0.0%	Woody vines – Consists of all woody vines, regardless of
			0.0%	height.
		$\Box$	0.0%	
		$\Box$	0.0%	Hydrophytic
		니. _ =		Vegetation Present? Yes No •
	0	= Te	otal Cover	1

Soil Sampling Point: W-CBA-013/014 UPL

Profile Descr	iption: (Describe	to the depth	needed to document the	indicator or co	nfirm the	absence of indicators.)				
Depth	Matrix	<b>K</b>	Redox F	eatures						
(inches)	Color (moist)	%		% Type 1	Loc <sup>2</sup>	Texture	Remarks			
0-10	10YR 4/3	100				Silt Loam				
10-18	10YR 4/4	100				Silt Loam				
						- Sile Eddin				
<sup>1</sup> Type: C=Cond	centration. D=Deple	etion. RM=Red	uced Matrix, CS=Covered or	Coated Sand Gra	ins <sup>2</sup> Loc	ation: PL=Pore Lining. M=Ma	trix			
Hydric Soil I	ndicators:					Indicators for Problem	natic Hydric Soils <sup>3</sup> :			
Histosol (	A1)		Dark Surface (S7)			_	•			
Histic Epip	pedon (A2)		Polyvalue Below Sur	face (S8) (MLRA	147,148)	2 cm Muck (A10) (N				
☐ Black Hist			Thin Dark Surface (S	59) (MLRA 147, 1	48)	Coast Prairie Redox	(A16)			
Hydrogen	Sulfide (A4)		Loamy Gleyed Matrix			(MLRA 147,148)	. C-: - (F10)			
Stratified	Layers (A5)		Depleted Matrix (F3)			Piedmont Floodplair (MLRA 136, 147)	1 SOIIS (F19)			
2 cm Mucl	k (A10) (LRR N)		Redox Dark Surface	(F6)		Very Shallow Dark S	Surface (TE12)			
	Below Dark Surface	(A11)	Depleted Dark Surfa	ice (F7)						
	k Surface (A12)	(//	Redox Depressions (			U Other (Explain in Remarks)				
	ck Mineral (S1) (LRI	R N	Iron-Manganese Ma	sses (F12) (LRR I	٧,					
MLRA 147	7, 148)	ιχ IV,	MLRA 136)	, , ,	•					
☐ Sandy Gle	eyed Matrix (S4)		Umbric Surface (F13	3) (MLRA 136, 12	2)	2				
Sandy Red			Piedmont Floodplain	n Soils (F19) (MLF	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,				
	Matrix (S6)		Red Parent Material	(F21) (MLRA 12)	7, 147)		rbed or problematic.			
	ayer (if observed)	):								
Type:						Hydric Soil Present?	Yes ○ No ●			
Depth (incl	hes):					Tryunc Son Fresent:	165 U 110 U			
Remarks:										

Wetland 36	Rater(s): C. ASHBA	UGH/B.MILLER	Date: 1	11/14/2018
0	0 Metric 1. Wetland Area (size).	W-CBA-013 PEM		
max 6 pts subtota	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  x <0.1 acres (0.04ha) (0 pts)	0.089 acres		
3	3 Metric 2. Upland buffers and sur	rounding land use.		
max 14 pts. subtota	2a. Calculate average buffer width. Select only or WIDE. Buffers average 50m (164ft) or more around v MEDIUM. Buffers average 25m to <50m (82 to <164 x NARROW. Buffers average 10m to <25m (32ft to <8 VERY NARROW. Buffers average <10m (<32ft) arou	wetland perimeter (7) ft) around wetland perimeter (4) 2ft) around wetland perimeter (1)	k.	
	2b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, sava LOW. Old field (>10 years), shrubland, young second X MODERATELY HIGH. Residential, fenced pasture, p HIGH. Urban, industrial, open pasture, row cropping,	nnah, wildlife area, etc. (7) I growth forest. (5) ark, conservation tillage, new fallow field. (3	3)	
6.0	9 Metric 3. Hydrology.			
max 30 pts. subtoti	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. S None or none apparent (12) Recovered (7) x Recovering (3) x Recent or no recovery (1)  Metric 4. Habitat Alteration and D	Check all disturbances observed  ditch	nan use (1) complex (1) n. Score one or dbl check. urated (4)	
max 20 pts. subtoti	4a. Substrate disturbance. Score one or double of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and ass Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or double check None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	and average.  Check all disturbances observed mowing shru grazing hert clearcutting X sed selective cutting dred woody debris removal X farm	ub/sapling removal paceous/aquatic bed removal imentation dging ning ient enrichment	
subtota	15 or NAM v. 5.0 Field Form Quantitative Rating			

W-CBA-013 PEM | W-CBA-013 PEM\_Field 3/8/2019

Wetland 36	3	Rater(s): C. ASHBAL	JGH	/B.MILLER	Date:	11/14/2018
	15			W-CBA-013 PEM		
	subtotal this page  0 15 Metric 5. Sp	ecial Wetlands.				
max 10 pts.	subtotal  Check all that  Bog (10)  Fen (10)  Old growth forest (*  Mature forested (*  Lake Erie coastal/tr  Lake Plain Sand Pr  Relict Wet Praires (  Known occurrence  Significant migrator	apply and score as indica  10)  tland (5)  ibutary wetland-unrestricted hydrolibutary wetland-restricted hydrologiairies (Oak Openings) (10)	ogy (1 y (5) ered s	0) species (10) 0)		
	-2 13 Metric 6. Pla	ınt communities, inter	spe	ersion, microtopography.		
max 20pts.	Score all present us Aquatic bed 1 Emergent Shrub Forest Mudflats Open water Other 6b. horizontal (pla Select only one. High (5) Moderately high(4) Moderately low (2) x Low (1) None (0) 6c. Coverage of in Table 1 ORAM long or deduct points for x Extensive >75% co	vasive plants. Refer of form for list. Add coverage ver (-5)	2	Vegetation Community Cove Absent or comprises <0.1ha (0.2471 at Present and either comprises small par vegetation and is of moderate quality, or significant part but is of low quality Present and either comprises significant vegetation and is of moderate quality or part and is of high quality Present and comprises significant part, vegetation and is of high quality  Narrative Description of Vegetation Low spp diversity and/or predominance disturbance tolerant native species Native spp are dominant component of although nonnative and/or disturbance can also be present, and species divers moderately high, but generallyw/o prese threatened or endangered spp to A predominance of native species, with and/or disturbance tolerant native spp	cres) contiguous area t of wetland's 1 or comprises a at part of wetland's 2 or comprises a small or more, of wetland's 3  Quality  of nonnative or low the vegetation, mod tolerant native spp sity moderate to ence of rare  Inonnative spp high absent or virtually	
Category 1	Moderate 25-75% of Sparse 5-25% cove Nearly absent <5% Absent (1)  6d. Microtopograph Score all present use 1 Vegetated hummud Coarse woody debit Standing dead >25 Amphibian breeding 1 GRAND TOTAL (max 100 p. 13)	cover (-3) er (-1) cover (0)  ohy. sing 0 to 3 scale. ks/tussucks is>15cm (6in) cm (10in) dbh g pools	1 2 3 0 1	absent, and high spp diversity and ofter the presence of rare, threatened, or end the presence of rare, threatened, or end the presence of rare, threatened, or end the presence of the present very small amounts or if more of marginal quality. Present in moderate amounts, but not of quality or in small amounts of highest quality and of highest quality.	ty  common  of highest uality	

W-CBA-013 PEM | W-CBA-013 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 36

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing North



### Wetland 36

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing East





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 36

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing South



### Wetland 36

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 36

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Soil Pit



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

Project/Site: Carrollton-Gable	City/County: Carroll	Sampling Date: 14-Nov-18
Applicant/Owner: AEP	State: OH Sampling	g Point: W-CBA-014 PEM
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S	4 <b>T</b> 13N - Lee <b>R</b> 5W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, n	one): concave Slope: 5.0% / 2.9 °
Subregion (LRR or MLRA): MLRA 127 in LRR N	<b>Lat.:</b> 40.516274 <b>Lon</b>	g.: -80.985637
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt loa	ams, 15 to 25 percent slopes NWI o	classification: N/A
Are climatic/hydrologic conditions on the site typical for this t	ime of year? Yes $lacktriangle$ No $lacktriangle$ (If no,	explain in Remarks.)
		Circumstances" present? Yes   No
	aturally problematic? (If needed, e	explain any answers in Remarks.)
Summary of Findings - Attach site map sho	wing sampling point location	ns, transects, important features, etc
Hydrophytic Vegetation Present? Yes   No		
Hydric Soil Present? Yes  No	Is the Sampled Area	
Wetland Hydrology Present? Yes No	within a Wetland?	Yes ● No ○
PEM wetland depression located at headwaters of intermitted	it stream S-CBA-014.	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that	apply)	Surface Soil Cracks (B6)
Surface Water (A1)	uatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	n Sulfide Odor (C1)	✓ Drainage Patterns (B10)
	Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
	e of Reduced Iron (C4)	Dry Season Water Table (C2)
	ron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	ck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
1 m	xplain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Water-Stained Leaves (B9)		Shallow Aquitard (D3)
Aquatic Fauna (B13)		Microtopographic Relief (D4)  FAC-neutral Test (D5)
Field Observations:		TAC-neutral Test (D3)
	(inches):	
	(inches):	
Saturation Precent?	(inches): Wetland Hydr	ology Present? Yes   No
Describe Recorded Data (stream gauge, monitoring well, aer	ial photos, previous inspections), if avail	able:
Domonico		
Remarks:		
Primary source of hydrology is surface water collection.		

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

		Dominant Species?		Sampling Point: W-CBA-014 PEM
	Absolute	itciioti ati	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:
2	0			Total Number of Dominant
3	0			Species Across All Strata:
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That Ale OBL, FACW, of FAC
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
Diet size:	0	= Total Cover		OBL species
Sapling-Sapling/Shrub Stratum (Plot size:)		0.00/		FACW species <u>15</u> x 2 = <u>30</u>
1		0.0%		FAC species80 x 3 =240
2		0.0%		FACU species $0 \times 4 = 0$
3	_	0.0%		UPL species $\frac{10}{10}$ x 5 = $\frac{50}{10}$
4		0.0%		· · · · · · · · · · · · · · · · · · ·
5		0.0%		Corumn rocars (A)
6				Prevalence Index = B/A = 3.048
7				Hydrophytic Vegetation Indicators:
8				Rapid Test for Hydrophytic Vegetation
9	0			✓ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2	0	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
3	0	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4.	0	0.0%		be present, unless disturbed or problematic.
5.		0.0%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
		= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: _5' radius )				Sapling/shrub stratum – Consists of woody plants, excluding
1. Euthamia graminifolia	45	42.9%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Setaria pumila	20	19.0%	FAC	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Epilobium coloratum	15	14.3%	FACW	ft tall.  Woody vines – Consists of all woody vines greater than 3.28
4. Rumex crispus		14.3%	FAC	ft in height.
5. Daucus carota		4.8%	UPL	
6. Bromus inermis		4.8%	UPL	Five Vegetation Strata:
7				Tree - Woody plants, excluding woody vines, approximately
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9				Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and
11	0			less than 3 in. (7.6 cm) DBH.
12	0			Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	105	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3.		0.0%		Woody vines – Consists of all woody vines, regardless of
4.	_	0.0%		height.
5		0.0%		
6	0	0.0%		Hydrophytic Vegetation
0		= Total Cover		Present? Yes No
		. J. C. COVEI		
Remarks: (Include photo numbers here or on a separate she	et.)			
Carex sp 20%				

Soil Sampling Point: W-CBA-014 PEM

Profile Descr	iption: (Describe to	the depth	needed to docume	nt the indi	cator or co	nfirm the	absence of indicators.)	
Depth	Matrix		R	edox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks
0-8	10YR 4/2	95	10YR 4/6	5	C	PL, M	Silt Loam	
8-16	10YR 4/1	82	10YR 4/6	20	С	PL, M	Silt Loam	
				_				
1 Type: C=Con	centration D=Denleti	on RM=Red	uced Matrix CS=Cov	ered or Coat	ted Sand Gr	ains 21 oc	ation: PL=Pore Lining. M=I	Matrix
Hydric Soil I	•	on. Kin-keu	uccu Matrix, C5=C0V	Cred or coar	ica Sana Gr	allis Loc		
Histosol (			☐ Dark Surface	(67)			Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
_ `	pedon (A2)		Polyvalue Be	. ,	(CO) (MI DA	147 140)	2 cm Muck (A10)	(MLRA 147)
Black Hist	. ,		Thin Dark Su				Coast Prairie Red	ox (A16)
	Sulfide (A4)					140)	(MLRA 147,148)	
	Layers (A5)		<ul><li>Loamy Gleye</li><li>✓ Depleted Ma</li></ul>		.)		Piedmont Floodpl	
	k (A10) (LRR N)		Redox Dark				(MLRA 136, 147)	
		A11\	Depleted Dai	. ,			☐ Very Shallow Dar	
	Below Dark Surface (A	AII)	Redox Depre		/)		Other (Explain in	Remarks)
	k Surface (A12)		☐ Iron-Mangan	` '	(F12) (I DD	N		
☐ Sandy Mu MLRA 147	ick Mineral (S1) (LRR 7. 148)	N,	MLRA 136)	iese masses	(1 12) (LKK	IN,		
	Sandy Gleyed Matrix (S4)			ace (F13) (M	LRA 136, 12	22)		
Sandy Re			☐ Piedmont Flo				<sup>3</sup> Indicators of	hydrophytic vegetation and
	Matrix (S6)		Red Parent N					drology must be present, sturbed or problematic.
			Red referen	ideeridi (121	.) (11210112	,, 1,,,	155 4	starbed or problemate.
Restrictive L	ayer (if observed):							
Type:							Unideia Cail Brancasta	Yes   No
Depth (inc	hes):						Hydric Soil Present?	Yes S No
Remarks:								

Upland 36, 37

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

Project/Site: Carrollton-Gable	City/County: Carroll Sampling Date: 14-Nov-18
Applicant/Owner: AEP	State: OH Sampling Point: W-CBA-013/014 UPL
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S 4 T 13N - Lee R 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope: 8.0% / 4.6 °
Subregion (LRR or MLRA): MLRA 127 in LRR N Lat.:	40.516488 <b>Long.:</b> -80.985837 <b>Datum:</b> NAD83
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt loams, 15 t	to 25 percent slopes NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of you	ear? Yes   No   (If no, explain in Remarks.)
	ly disturbed? Are "Normal Circumstances" present? Yes   No
	problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing s	sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes ○ No ●	
Hydric Soil Present? Yes ○ No ●	Is the Sampled Area
Wetland Hydrology Present? Yes No •	Is the Sampled Area Yes No •
Remarks: Upland sample point associated with wetlands W-CBA-013 PEM and V soybean field.	N-CBA-014 PEM. Upland sample point located on hillside at edge of active
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plant	
High Water Table (A2)  Hydrogen Sulfide (	
	eres along Living Roots (C3) Moss Trim Lines (B16)
☐ Water Marks (B1) ☐ Presence of Reduction Presence of Reduction Presence of Reduction Recent Iron Recent Iron Reduction Recent Iron Recent I	
	tion in Tilled Soils (C6)  Crayfish Burrows (C8)  Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Iron Deposits (B5)  Other (Explain in F	Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-neutral Test (D5)
Field Observations:	
Surface Water Present? Yes O No O Depth (inches):	
Water Table Present? Yes O No O Depth (inches):	Wetland Hydrology Present? Yes ○ No ●
Saturation Present? (includes capillary fringe)  Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Remarks:	
No hydrology observed.	

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

			ominant	Sampling Point: W-CBA-013/014 UPL
Tree Stratum (Plot size:)	Absolute % Cover	Re	ecies? ————————————————————————————————————	Dominance rest Worksheet
1	0		0.0%	Number of Dominant Species That are OBL, FACW, or FAC:1(A)
)			0.0%	
			0.0%	Total Number of Dominant
		$\Box$	0.0%	Species Across All Strata: (B)
•		$\overline{\Box}$	0.0%	Percent of dominant Species
		Η.	0.0%	That Are OBL, FACW, or FAC: 50.0% (A/B)
•		Η.		
•		Η.	0.0%	Prevalence Index worksheet:
		Ш,	0.0%	Total % Cover of: Multiply by:
apling-Sapling/Shrub Stratum (Plot size:	) =	= To	otal Cover	OBL species
			0.0%	FACW species $0 \times 2 = 0$
			0.0%	FAC species $40 \times 3 = 120$
•		$\Box$	0.0%	FACU species $50 \times 4 = 200$
	•	$\Box$	0.0%	UPL species $\frac{10}{10}$ x 5 = $\frac{50}{10}$
		$\Box$	0.0%	Column Totals: 100 (A) 370 (B)
			0.0%	Cordini rocars.
		$\Box$	0.0%	Prevalence Index = B/A = 3.700
		$\Box$	0.0%	Hydrophytic Vegetation Indicators:
		Η.	0.0%	Rapid Test for Hydrophytic Vegetation
		$\Box$		☐ Dominance Test is > 50%
		Ш.	0.0%	Prevalence Index is ≤3.0 <sup>1</sup>
hrub Stratum (Plot size:)	=	= To	otal Cover	Morphological Adaptations 1 (Provide supporting
	0		0.0%	data in Remarks or on a separate sheet)
•			0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
			0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
•			0.0%	be present, unless disturbed or problematic.
		$\Box$	0.0%	Definition of Vegetation Strata:
		$\Box$	0.0%	Four Vegetation Strata:
		$\Box$	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3
•			otal Cover	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
lerb Stratum (Plot size: <u>5' radius</u> )		_	otal Covel	Sapling/shrub stratum – Consists of woody plants, excluding
_ Setaria pumila ssp. pumila		✓.	40.0% FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
_ Solidago altissima		✓.	20.0% FACU	Herb stratum – Consists of all herbaceous (non-woody)
Glechoma hederacea	15		15.0% FACU	plants, regardless of size, and all other plants less than 3.28
Cirsium arvense	15		15.0% FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
Daucus carota	10		10.0% UPL	ft in height.
	0		0.0%	Five Vegetation Strate
			0.0%	Five Vegetation Strata:
			0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
•		$\Box$	0.0%	diameter at breast height (DBH).
		$\Box$		Sapling stratum – Consists of woody plants, excluding
			0.0%	woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	0	$\square$	0.0%	Shrub stratum – Consists of woody plants, excluding woody
		Ц,	0.0%	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Voody Vine Stratum (Plot size:)	100 =	= To	otal Cover	Herb stratum – Consists of all herbaceous (non-woody)
			0.0%	plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
	0		0.0%	3 ft (1 m) in height.
			0.0%	Woody vines – Consists of all woody vines, regardless of
			0.0%	height.
		$\Box$	0.0%	
		$\Box$	0.0%	Hydrophytic
		니. _ =		Vegetation Present? Yes No •
	0	= Te	otal Cover	1

Soil Sampling Point: W-CBA-013/014 UPL

Profile Descr	ription: (Describe to	the depth	needed to document	the indica	ator or co	nfirm the	absence of indicators.)		
Depth	Matrix		Rede	ox Featur					
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks	
0-10	10YR 4/3	100					Silt Loam		
10-18	10YR 4/4	100					Silt Loam		
<sup>1</sup> Type: C=Con	centration. D=Depletion	on. RM=Redi	uced Matrix, CS=Covere	d or Coate	d Sand Gra	ains ²Loc	ation: PL=Pore Lining. M=I	1atrix	
Hydric Soil I	Indicators:		<u> </u>				Indicators for Proble		
Histosol (			Dark Surface (S	7)					
`	pedon (A2)		Polyvalue Below	•	58) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)	
Black Hist			☐ Thin Dark Surfac	•	, ,		Coast Prairie Red	ox (A16)	
	Sulfide (A4)		Loamy Gleyed M		, _	, , ,	(MLRA 147,148)		
	Layers (A5)		Depleted Matrix				Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)	
	k (A10) (LRR N)		Redox Dark Surf				Very Shallow Dar	Curface (TE12)	
	Below Dark Surface (A	111)	☐ Depleted Dark S	, ,	)				
	k Surface (A12)	111)	Redox Depression		,		Uther (Explain in Remarks)		
	ıck Mineral (S1) (LRR I	N	☐ Iron-Manganese	. ,	12) (LRR	N,			
MLRA 147	7, 148)	٠,	MLRA 136)						
Sandy Gle	eyed Matrix (S4)		Umbric Surface	(F13) (MLI	RA 136, 12	2)	3		
Sandy Re	dox (S5)		Piedmont Flood	olain Soils	(F19) (MLI	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Stripped N	Matrix (S6)		Red Parent Mate	erial (F21)	(MLRA 12	7, 147)		sturbed or problematic.	-7
Postrictive I	ayer (if observed):								
Type:	ayer (ii observed).								
Depth (inc							Hydric Soil Present?	Yes O No 💿	
Remarks:									

Wetland 37		Rater(s): C. ASHBA	UGH/B.MILLER	Date: 11/14/2018
max 6 pts	0 0 subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)	W-CBA-014 PEM  0.003 acres	
	1 1	0.1 to <0.3 acres (0.12 to <1.21a) (4pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  x <0.1 acres (0.04ha) (0 pts)  Metric 2. Upland buffers and sur	rounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only o WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <164 NARROW. Buffers average 10m to <25m (32ft to <5 x VERY NARROW. Buffers average <10m (<32ft) aro	wetland perimeter (7) Ift) around wetland perimeter (4) s2ft) around wetland perimeter (1) und wetland perimeter (0)	
		b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, sav. LOW. Old field (>10 years), shrubland, young secon MODERATELY HIGH. Residential, tenced pasture, HIGH. Urban, industrial, open pasture, row cropping.	annah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, new fallow field. (3)	ı
6.	.0 7	Metric 3. Hydrology.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x 0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. S None or none apparent (12) Recovered (7) X Recovering (3) x Recent or no recovery (1)  Metric 4. Habitat Alteration and	Check all disturbances observed   ditch	in use (1) complex (1) Score one or dbl check. rated (4) (12in) (1) source (nonstormwater) grading ped/RR track
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and as Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or double check None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	sign score.  k and average. Check all disturbances observed mowing shrub grazing herba clearcutting x sedim selective cutting dredg woody debris removal x farmir	

W-CBA-014 PEM | W-CBA-014 PEM\_Field 3/8/2019

Wetland 3	57		Rater(s): C. ASH	BAUGH.	/B.MILLER	Date:	11/14/2018
	13				W-CBA-014 PEM		
	subtotal this		ecial Wetlands.				
10 -t-				dicated			
max 10 pts.	subtotal	Bog (10) Fen (10) Old growth forest (11) Mature forested wet Lake Erie coastal/tril Lake Plain Sand Pra Relict Wet Praires (1	and (5) butary wetland-unrestricted l butary wetland-restricted hyd iiries (Oak Openings) (10)	hydrology ( drology (5)	,		
			songbird/water fowl habitat				
	41 47	<del></del>	. See Question 5 Qualitative		·		
	4 17	Metric 6. Plai	nt communities, ii	nterspe	rsion, microtopography.		
max 20pts.	subtotal	6a. Wetland Ve	getation Communitie	s.	Vegetation Community Cove	er Scale	
		Score all present usi	ing 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed			Present and either comprises small par		
		1 Emergent Shrub			vegetation and is of moderate quality, or significant part but is of low quality	or comprises a	
		Forest		2	Present and either comprises significant	nt part of wetland's 2	
		Mudflats			vegetation and is of moderate quality of		
		Open water			part and is of high quality		
		Other		3	Present and comprises significant part	or more, of wetland's 3	
		Select only one.	view) Interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation	Quality	
		Moderately high(4)			Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of		
		x Low (1)			although nonnative and/or disturbance		
		None (0) 6c. Coverage of inv	racivo plante Pofor		can also be present, and species diver moderately high, but generallyw/o pres		
		Table 1 ORAM long			threatened or endangered spp to	crice of fale	
		or deduct points for			A predominance of native species, with	nonnative spp high	
		Extensive >75% cov	er (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% co			absent, and high spp diversity and ofte		
		Sparse 5-25% cover Nearly absent <5% of			the presence of rare, threatened, or en	dangered spp	
		x Absent (1)	Sover (0)		Mudflat and Open Water Class Quali	tv	
		6d. Microtopograph	hy.		Absent <0.1ha (0.247 acres)	•	
		Score all present usi			Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummuck			Moderate 1 to <4ha (2.47 to 9.88 acres	5)	
		Coarse woody debri		3	High 4ha (9.88 acres) or more		
		Amphibian breeding			Microtopography Cover Scale		
			•		Absent		
				1	Present very small amounts or if more of marginal quality	common	
				2	Present in moderate amounts, but not	of highest	
Category 1				_	quality or in small amounts of highest of		
	17 GRAND	TOTAL(max 100 pt	ts)	3	Present in moderate or greater amount	s	
					and of highest quality		

W-CBA-014 PEM | W-CBA-014 PEM\_Field 3/8/2019



WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 37

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing North



### Wetland 37

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

Wetland 37

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing South



### Wetland 37

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 37

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Soil Pit



Wetland 38

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

Project/Site: Carrollton-Gable	City/Count	ty: Carroll	Sampling Date: 14-Nov-18
Applicant/Owner: AEP	State: OH	Sampling I	Point: W-CBA-015 PEM
Investigator(s): C.Ashbaugh, B.Miller	Section, T	ownship, Range: S	4 <b>T</b> 13N - Lee <b>R</b> 5
Landform (hillslope, terrace, etc.): Hillside	Local relief	(concave, convex, nor	ee): concave Slope: 5.0% / 2.9 °
Subregion (LRR or MLRA): MLRA 127 in LRR N	Lat.: 40.516085	Long	: -80.985093
Soil Map Unit Name: WmD; Westmoreland-Cosho			ssification: N/A
Are climatic/hydrologic conditions on the site typic			cplain in Remarks.)
			reamstances present.
Are Vegetation  , Soil , or Hydrolog	y naturally problematic?	(If needed, ex	plain any answers in Remarks.)
<b>Summary of Findings - Attach site n</b>	nap showing sampling	point locations	, transects, important features, etc
Hydrophytic Vegetation Present? Yes   N	o O		
Hydric Soil Present? Yes   N	o O Ist	the Sampled Area	es   No
_ ·		thin a Wetland?	is S NO C
PEM wetland located in drainage swale on hillside boundary follows the edge of hydrophytic vegetat		r culvert outlet from u	pslope adjacent natural gas well pad. Wetland
Hydrology			
Wetland Hydrology Indicators:	and all that are by	<u>_S</u>	econdarv Indicators (minimum of two required)
Primary Indicators (minimum of one required; ch	True Aquatic Plants (B14)		Surface Soil Cracks (B6)
Surface Water (A1) High Water Table (A2)	Hydrogen Sulfide Odor (C1)		Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Livi	ing Roots (C3)	Moss Trim Lines (B16)
✓ Water Marks (B1)	Presence of Reduced Iron (C4)		Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled S	Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	50ii5 (€0) •	
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stunted or Stressed Plants (D1)
Iron Deposits (B5)		Ē	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			Shallow Aguitard (D3)
Water-Stained Leaves (B9)			Microtopographic Relief (D4)
Aquatic Fauna (B13)		•	FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes No •	Depth (inches):		
Water Table Present? Yes No •	Depth (inches): 14		
Saturation Present?  (includes capillary frings)  Yes  No	Depth (inches): 10	Wetland Hydrol	ogy Present? Yes  No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring)		increations) if availab	lo
Describe Recorded Data (Stream gauge, monitorii	ig weil, derial priotos, previous i	rispections), ii avaliab	C.
Remarks:			
Primary source of hydrology is surface water colle	ction and sheetflow of stormwa	ter outlet.	

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

			ominant	Sampling Point: W-CBA-015 PEM
Tree Stratum (Plot size:)	Absolute % Cover	Re	el.Strat. Indic over Statu	s
1	0		0.0%	Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2	0		0.0%	
3	0		0.0%	Total Number of Dominant Species Across All Strata: 2 (B)
			0.0%	Species / icross / iii strata.
			0.0%	Percent of dominant Species
			0.0%	That Are OBL, FACW, or FAC: 100.0% (A/B)
			0.0%	Prevalence Index worksheet:
		$\Box$	0.0%	Total % Cover of: Multiply by:
	0 =	 = Тс	otal Cover	OBL species 0 x 1 = 0
apling-Sapling/Shrub Stratum (Plot size:	)	_		FACW species $\underline{55}$ x 2 = $\underline{110}$
		Ш	0.0%	
	0		0.0%	
	0		0.0%	FACU species $0 \times 4 = 0$
	0		0.0%	UPL species $\frac{15}{}$ x 5 = $\frac{75}{}$
	0		0.0%	Column Totals: 125 (A) 350 (B)
			0.0%	Prevalence Index = B/A = 2,800
			0.0%	Hydrophytic Vegetation Indicators:
	0		0.0%	Rapid Test for Hydrophytic Vegetation
			0.0%	
		$\Box$	0.0%	
		 = To	otal Cover	Prevalence Index is ≤3.0 <sup>1</sup>
hrub Stratum (Plot size:)			0.0%	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
		$\Box$		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
			0.0%	-
•		$\square$	0.0%	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
		$\square$	0.0%	_
			0.0%	Definition of Vegetation Strata:
		Ш	0.0%	Four Vegetation Strata:
• ,		Ш	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
erb Stratum (Plot size: <u>5' radius</u> )		= To	otal Cover	regardless of height.
_Panicum dichotomiflorum	10		8.0% FAC	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Poa palustris	25	<b>V</b>	20.0% FAC\	, ,
Epilobium coloratum	20		16.0% FAC\	plants, regardless of size, and all other plants less than 3.28
Lamium purpureum	15		12.0% UPL	ft tall.  Woody vines – Consists of all woody vines greater than 3.28  ft in height
Setaria pumila	15		12.0% FAC	ft in height.
Echinochloa crus-galli	40	<b>V</b>	32.0% FAC	Fire Versteller Charles
			0.0%	Five Vegetation Strata:
			0.0%	Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
			0.0%	diameter at breast height (DBH).
			0.0%	Sapling stratum – Consists of woody plants, excluding
			0.0%	woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
			0.0%	Shrub stratum – Consists of woody plants, excluding woody
		ַ ַ - ד∙	otal Cover	vines, approximately 3 to 20 ft (1 to 6 m) in height.
/oody Vine Stratum (Plot size:)		_	0.0%	Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
			0.0%	<ul> <li>woody species, except woody vines, less than approximately 3 ft (1 m) in height.</li> </ul>
			0.0%	Woody vines – Consists of all woody vines, regardless of
			0.0%	height.
•				
			0.0%	Hydrophytic
		Ш	0.0%	Vegetation Present? Yes No
	0	- T	otal Cover	Fresents

Soil Sampling Point: W-CBA-015 PEM

Profile Descr	iption: (De	scribe to	the depth	needed to	document	t the indi	cator or co	nfirm the	absence of indicators.)		
Depth		Matrix			Red	dox Featu	ıres				
(inches)	Color (	moist)	%	Color (	moist)	<u>%</u>	Tvpe 1	Loc2	Texture	Rem	arks
0-10	10YR	4/2	95	10YR	3/6	5	C	M	Silt Loam		
10-16	10YR	5/3	95	10YR	5/6	5	С	М	Clay Loam		
1 Type: C=Cond	centration Γ	)=Denletio	n RM=Red	uced Matrix	CS=Cover	ed or Coat	ed Sand Gr	ains 21 oc	ation: PL=Pore Lining. M=	Matriy	
		-Depletio	III. KIII–Keu	uceu Matrix,	C3=C0Vei	eu oi coat	eu Sanu Gr	allis -LUC			
Hydric Soil I				□ Devi	. Cfa == (1	C7\			Indicators for Probl	ematic Hydri	c Soils <sup>3</sup> :
Histosol (	•				k Surface (	•	(CO) (MI DA	147 140)	2 cm Muck (A10)	) (MLRA 147)	
Black Hist	pedon (A2)						(S8) (MLRA MLRA 147, 1		Coast Prairie Red	lox (A16)	
	. ,							140)	(MLRA 147,148)		
	Sulfide (A4) Layers (A5)	)			ny Gleyed leted Matri:		)		Piedmont Floodp		
	k (A10) (LRR	) NIV			ox Dark Su				(MLRA 136, 147)		_,
			44)		leted Dark	. ,	:7)		<ul><li>☐ Very Shallow Dark Surface (TF12)</li><li>☐ Other (Explain in Remarks)</li></ul>		
	Below Dark	•	11)		ox Depress		/)				
	k Surface (A					, ,	(F12) (LRR	N			
☐ Sandy Mu MLRA 147	ck Mineral (5 7, 148)	51) (LRR N	١,	MLR	A 136)	ic 11033C3	(112) (LIXIX	Ιν,			
	yed Matrix (	(S4)		Uml	oric Surface	e (F13) (M	LRA 136, 12	22)			
Sandy Re		,		Piec	lmont Floor	dplain Soils	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
	Matrix (S6)			☐ Piedmont Floodplain Soils (F19) (MLRA 148) ☐ Red Parent Material (F21) (MLRA 127, 147)						drology must b sturbed or pro	
					T di cite i la	teriai (121	) (11210112	,, 1,,,	1	otarboa or pro	
Restrictive La	ayer (if obs	erved):									
Type:									Undrie Ceil Bresenta	V (a)	N- (
Depth (incl	hes):								Hydric Soil Present?	Yes	No O
Remarks:											

### Upland 38

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

Project/Site: Carrollton-Gable	City/County: Carroll	Sampling Date: 14-Nov-18
Applicant/Owner: AEP	State: OH Samp	pling Point: W-CBA-015 UPL
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range:	<b>S</b> 4 <b>T</b> 13N - Lee <b>R</b> 5W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex	<b>x, none):</b> rolling <b>Slope:</b> 8.0% / 4.6 °
Subregion (LRR or MLRA): MLRA 127 in LRR N	Lat.: 40.516058 L	<b>Long.:</b> -80.985229 <b>Datum:</b> NAD83
Soil Map Unit Name: WmD; Westmoreland-Coshocton silt I		WI classification: N/A
Are climatic/hydrologic conditions on the site typical for this	stime of year? Yes  No (If i	no, explain in Remarks.)
		mal Circumstances" present? Yes  No
		nar direamstances present.
Are vegetation, soil, or nyurology	adurany problematic? (If needed	d, explain any answers in Remarks.)
Summary of Findings - Attach site map sh	owing sampling point locati	ions, transects, important features, etc
Hydrophytic Vegetation Present? Yes   No		
Hydric Soil Present? Yes No   No	Is the Sampled Area	a Yes ○ No ●
Wetland Hydrology Present? Yes No •	within a Wetland?	ies o no o
Remarks: Upland sample point associated with wetland W-CBA-015.	Upland sample point located in existing	gs agricutlural soybean field.
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all th		Surface Soil Cracks (B6)
	quatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
	gen Sulfide Odor (C1)	☐ Drainage Patterns (B10)
	ed Rhizospheres along Living Roots (C3) ce of Reduced Iron (C4)	☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
	: Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
	luck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
	(Explain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)	LXPIAIT III Remarks)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)		Microtopographic Relief (D4)
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No • Dept	h (inches):	
Water Table Present? Yes No Dept	h (inches):	
Saturation Present? (includes capillary fringe) Yes No Dept	h (inches): Wetland Hy	ydrology Present? Yes O No 💿
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous inspections), if av	vailable:
Remarks:		
No hydrology observed.		

# Upland 38 **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

		Dominant		Sampling Point: W-CBA-015 UPL
7-1 · · ·	Absolute	ixciioti ati	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species
1		0.0%		That are OBL, FACW, or FAC:
2		0.0%		Total Number of Dominant
3	_	0.0%		Species Across All Strata: (B)
4		0.0%		Percent of dominant Species
5		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6		0.0%		
7		0.0%		Prevalence Index worksheet:
8		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	)	= Total Cover		OBL species 0 x 1 = 0
1		0.0%		FACW species $25 \times 2 = 50$
2		0.0%		FAC species 65 x 3 = 195
3	0	0.0%		FACU species $\frac{25}{}$ x 4 = $\frac{100}{}$
4	0	0.0%		UPL species $\frac{0}{x}$ x 5 = $\frac{0}{x}$
5		0.0%		Column Totals: <u>115</u> (A) <u>345</u> (B)
6	•	0.0%		Prevalence Index = $B/A = 3.000$
7	0	0.0%		Hydrophytic Vegetation Indicators:
8	_	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0	= Total Cover		
1	0	0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
	0	0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3	0	0.0%		be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
7		= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
<u>Herb Stratum</u> (Plot size: <u>5' radius</u> )				Sapling/shrub stratum – Consists of woody plants, excluding
1. <u>Setaria pumila</u>	65	56.5%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. <u>Cirsium arvense</u>	15	13.0%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Panicum dichotomiflorum		21.7%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
4. Rosa multiflora	0	8.7%	FACU	ft in height.
5	0	0.0%		
6		0.0%		Five Vegetation Strata:
7		0.0%		Tree - Woody plants, excluding woody vines, approximately
8		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding
10		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11 12.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1				woody species, except woody vines, less than approximately
2				3 ft (1 m) in height.
3				Woody vines – Consists of all woody vines, regardless of height.
4	0			
5				Hydrophytic
6		0.0%		Vegetation No. No.
	0	= Total Cover		Present? Yes No
Remarks: (Include photo numbers here or on a separate she	et.)			

Soil Sampling Point: W-CBA-015 UPL

Profile Descri	ption: (Describe to t	he depth n	eeded to document	the indica	ator or co	nfirm the	absence of indicators.)	
Depth	Matrix		Red	ox Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-16	10YR 4/3	100					silty clay	
1 Type: C=Cond	entration D-Depletion	DM-Peduc	ed Matrix CS-Covere	ad or Coate	d Sand Gr	aine 21 ocs	ation: PL=Pore Lining. M=	Matrix
- ''	•	i. RM=Reduc	eu Maurx, CS=Covere	ed of Coale	u Sanu Gra	diiis -LOCo		
Hydric Soil I							Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol (A	,		Dark Surface (S	•	CO) (MI DA	1.47.1.40)	2 cm Muck (A10)	(MLRA 147)
Histic Epip			Polyvalue Belov				Coast Prairie Red	ox (A16)
Black Histi	` ,		☐ Thin Dark Surfa		LRA 147, I	.48)	(MLRA 147,148)	,
	Sulfide (A4)		Loamy Gleyed N				Piedmont Floodp	
	Layers (A5)		Depleted Matrix				(MLRA 136, 147)	
	(A10) (LRR N)		Redox Dark Sur	. ,	`		Very Shallow Dar	
	Below Dark Surface (A1	11)	Depleted Dark S  Redox Depressi		)		Other (Explain in	Remarks)
	Surface (A12)		Iron-Manganes	. ,	12) /I DD I	M		
☐ Sandy Mu MLRA 147	ck Mineral (S1) (LRR N <sub>i</sub> , 148)	,	MLRA 136)	e Masses (1	-12) (LRK	ν,		
☐ Sandy Gle	yed Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)	2	
Sandy Red	lox (S5)		Piedmont Flood	plain Soils	(F19) (MLI	RA 148)	<sup>3</sup> Indicators of	hydrophytic vegetation and drology must be present,
Stripped M	latrix (S6)		Red Parent Mat	erial (F21)	(MLRA 12	7, 147)		sturbed or problematic.
	<i>((a, 1, 1)</i>							
	yer (if observed):							
Type:							Hydric Soil Present?	Yes ○ No •
Depth (inch	nes):						.,	165 0 116 0
Remarks:								

Wetland 3	8	Rater(s): C. ASHBA	AUGH/B.MILLER	Date: 11/14/2018
max 6 pts	0 0 subtotal	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  < <0.1 acres (0.04ha) (0 pts)	W-CBA-015 PEM  0.043 acres	
	2 2		rrounding land use.	
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <16-NARROW. Buffers average 10m to <25m (32ft to <10-x) VERY NARROW. Buffers average <10m (<32ft) around 10m (<32ft)	one and assign score. Do not double check I wetland perimeter (7) 4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) bund wetland perimeter (0)	c.
		2b. Intensity of surrounding land use. Select on VERY LOW. 2nd growth or older forest, prairie, sav LOW. Old field (>10 years), shrubland, young seco X MODERATELY HIGH. Residential, tenced pasture, HIGH. Urban, industrial, open pasture, row cropping	rannah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, new fallow field. (3	3)
	6.0			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3)  Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Source (7) None or none apparent (12) Recovered (7) x Recent or no recovery (1)  Metric 4. Habitat Alteration and	Check all disturbances observed           ditch         x point           x title         x filling           dike         road           weir         dred           stormwater input         x Othe	an use (1) complex (1) )  1. Score one or dbl check. urated (4)  (12in) (1)  It source (nonstormwater) J/grading bed/RR track
max 20 pts.	subtotal 11	4a. Substrate disturbance. Score one or double  None or none apparent (4) Recovered (3) Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and as Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1) 4c. Habitat alteration. Score one or double chec None or none apparent (9) Recovered (6) Recovering (3) x Recent or no recovery (1)	k and average.  Check all disturbances observed mowing shrut grazing herb: clearcutting x sedir selective cutting dred; woody debris removal x farmi	
		page ORAM v. 5.0 Field Form Quantitative Rating		

W-CBA-015 PEM | W-CBA-015 PEM\_Field 3/8/2019

Wetland 38	3	Rater(s): C. ASHBAU	IGH	/B.MILLER	Date:	11/14/2018
	11			W-CBA-015 PEM		
	subtotal this page	Metric 5. Special Wetlands.				
max 10 pts.	subtotal	Check all that apply and score as indicate	ted.			
шах ю рь.		Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrol Lake Erie coastal/tributary wetland-restricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang Significant migratory songbird/water fowl habitat or us Category 1 Wetland. See Question 5 Qualitative Ratir	logy ( ly (5) lered age ( age (-1	species (10) (10) (0)		
	2 13	Metric 6. Plant communities, inter	spe	ersion, microtopography.		
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		Vegetation Community Cove		
	_	Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
	<u> </u>	Aquatic bed	1	Present and either comprises small par vegetation and is of moderate quality,		
	<u> </u>	Emergent Shrub		significant part but is of low quality	or comprises a	
		Forest	2	Present and either comprises significant	nt part of wetland's 2	
		Mudflats	-	vegetation and is of moderate quality of		
		Open water		part and is of high quality		
		Other	3	Present and comprises significant part	or more, of wetland's 3	
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
		Select only one.				
		High (5)		Narrative Description of Vegetation		
	_	Moderately high(4)		Low spp diversity and/or predominance	e of nonnative or low	
	_	Moderate (3)		disturbance tolerant native species	46	
	_	Moderately low (2) Low (1)		Native spp are dominant component of		
	)	<b>→</b> ``´´		although nonnative and/or disturbance can also be present, and species diver		
	L2	6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres		
		Table 1 ORAM long form for list. Add		threatened or endangered spp to	erice or rare	
		or deduct points for coverage		A predominance of native species, with	nonnative son high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or en		
		Nearly absent <5% cover (0)			<u> </u>	
	>	Absent (1)		Mudflat and Open Water Class Quali	ty	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	•	
		Score all present using 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more	<u>.</u>	
		Standing dead >25cm (10in) dbh				
		Amphibian breeding pools		Microtopography Cover Scale		
				Absent		
			1	Present very small amounts or if more	common	
			_	of marginal quality	-£ L: _L4	
0-4			2	Present in moderate amounts, but not		
Category 1	_		_	quality or in small amounts of highest of	quanty	
	13 GRAND T	OTAL(max 100 pts)	3	Present in moderate or greater amount	s	
_				and of highest quality		

W-CBA-015 PEM | W-CBA-015 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 38

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing North



### Wetland 38

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 38

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing South



### Wetland 38

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 38

Date:

November 14, 2018

**Description:** 

PEM

Category 1

Soil Pit



Wetland 39a

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

Project/Site: Carrollton-Gable	City/County: Carroll Sampling Date: 14-Nov-18				
Applicant/Owner: AEP	State: OH Sampling Point: W-CBA-016 PEM				
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S         6         T         15N - Lee         R         4W				
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.5% / 0.3 °				
Subregion (LRR or MLRA): MLRA 127 in LRR N Lat.:	40.507356 <b>Long.:</b> -80.973044 <b>Datum:</b> NAD83				
Soil Map Unit Name: Or; Orville silt loam, 0 to 3 percent slopes, occa	ssionally flooded NWI classification: R5UBH				
Are climatic/hydrologic conditions on the site typical for this time of year? Yes $lacktriangle$ No $lacktriangle$ (If no, explain in Remarks.)					
Are Vegetation $\ \square$ , Soil $\ \square$ , or Hydrology $\ \square$ significant	ly 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					
Hydric Soil Present? Yes   No	Is the Sampled Area Yes  No				
Wetland Hydrology Present? Yes   No	within a Wetland?				
Hydrology					
Water Marks (B1) Presence of Reduc	Odor (C1)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Dry Season Water Table (C2)  Ction in Tilled Soils (C6)  C(C7)  Remarks)  Saturation Visible on Aerial Imagery (C9)  Stunted or Stressed Plants (D1)  Geomorphic Position (D2)  Shallow Aquitard (D3)  Microtopographic Relief (D4)  FAC-neutral Test (D5)				
Water Table Present?  Saturation Present?  (includes capillary fringe)  Yes No Depth (inches):  Yes Depth (inches):	Wetland Hydrology Present? Yes  No				
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:				
Remarks: Primary source of hydrology is overland flow from adjacent perennial	l stream S-CBA-023.				

# Wetland 39a **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

		Dominant Species?		Sampling Point: W-CBA-016 PEM
Tree Stratum (Plot size:)	Absolute % Cover	iveriou at.	Indicator Status	Dominance Test worksheet:
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:1 (A)
2.		0.0%		
3.		0.0%		Total Number of Dominant
4	_	0.0%		Species Across All Strata: (B)
		0.0%		Percent of dominant Species
5		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6 7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	0 :	= Total Cover		OBL species $0 \times 1 = 0$
_Sapling-Sapling/Shrub Stratum (Plot size:)				FACW species $100 \times 2 = 200$
1	0			FAC species $25 \times 3 = 75$
2	0			FACU species $\frac{15}{15}$ x 4 = $\frac{60}{15}$
3				l '
4	0			(5)
5	0			Column Totals: <u>145</u> (A) <u>360</u> (B)
6	0			Prevalence Index = $B/A = 2.483$
7	0			Hydrophytic Vegetation Indicators:
8	0	0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		✓ Dominance Test is > 50%
10	0	0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0 :	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2.	0	0.0%		$\square$ Problematic Hydrophytic Vegetation $^1$ (Explain)
3	0	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	0	0.0%		be present, unless disturbed or problematic.
5		0.0%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
		= Total Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size: <u>5' radius</u> )				Sapling/shrub stratum – Consists of woody plants, excluding
1 . Phalaris arundinacea	100	69.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Verbesina alternifolia	25	17.2%	FAC	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. <u>Urtica dioica</u>		10.3%	FACU	It tall. Woody vines – Consists of all woody vines greater than 3.28
4. Rubus occidentalis	5	3.4%	UPL	ft in height.
5		0.0%		
6		0.0%		Five Vegetation Strata:
7		0.0%		Tree - Woody plants, excluding woody vines, approximately
8				20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding
10				woody vines, approximately 20 ft (6 m) or more in height and
11	0			less than 3 in. (7.6 cm) DBH. Shrub stratum – Consists of woody plants, excluding woody
12	0			vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	145 :	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3.	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0	0.0%		height.
5	0	0.0%		
6.	0	0.0%		Hydrophytic Vegetation
<u>.</u>		= Total Cover		Present? Yes No
Domarker (Include photo numbers here as a constant of				
Remarks: (Include photo numbers here or on a separate shee	st.)			

Soil Sampling Point: W-CBA-016 PEM

Profile Descr	iption: (Describe	to the depth	needed to documen	t the indic	cator or co	nfirm the	absence of indicators.)			
Depth	Matri			dox Featu	ires					
(inches)	Color (moist	) %	Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks		
0-4	10YR 4/3	100					Silt Loam			
4-16	10YR 4/2	90	10YR 4/6	10	С	М	Silt Loam			
<sup>1</sup> Type: C=Cond	centration. D=Depl	etion. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains ²Loc	ation: PL=Pore Lining. M=I	Matrix		
Hydric Soil I			,							
Histosol (/			☐ Dark Surface (	S7)				ematic Hydric Soils <sup>3</sup> :		
	pedon (A2)		Polyvalue Belor	•	(S8) (MI RA	147.148)	2 cm Muck (A10)	(MLRA 147)		
Black Hist			Thin Dark Surf				Coast Prairie Red	ox (A16)		
	Sulfide (A4)		Loamy Gleyed			,	(MLRA 147,148)			
	Layers (A5)		✓ Depleted Matri		,		Piedmont Floodpl (MLRA 136, 147)			
	k (A10) (LRR N)		Redox Dark Su				Very Shallow Dar			
	Below Dark Surface	- (Δ11)	Depleted Dark	. ,	7)					
	k Surface (A12)	C (/111)	Redox Depress		,		Other (Explain in	Remarks)		
	ck Mineral (S1) (LR	R N	☐ Iron-Manganes	. ,	(F12) (LRR	N,				
MLRA 147	7, 148)	ur ny	MLRA 136)							
Sandy Gle	eyed Matrix (S4)		Umbric Surface	e (F13) (MI	LRA 136, 12	22)	3, 1, , ,			
Sandy Red	dox (S5)		Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,			
Stripped N	Matrix (S6)		Red Parent Ma	terial (F21)	) (MLRA 12	7, 147)		sturbed or problematic.		
Postrictive I	ayer (if observed	١.								
Type:		).								
Depth (incl							Hydric Soil Present?	Yes   No		
	iles)									
Remarks:										
I										

Wetland 39b

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable		City/County: Carroll		Sampling Date:	14-Nov-18
Applicant/Owner: AEP		State: OH Samplin	ng Point:	W-CBA-016	PSS
Investigator(s): C.Ashbaugh, B.Miller		Section, Township, Range: S	6 т	15N - Lee	<b>R</b> 4W
Landform (hillslope, terrace, etc.):	Floodplain	Local relief (concave, convex,	none): conca	eve Slope:	0.5% / 0.3 °
Subregion (LRR or MLRA): MLRA 1	.27 in LRR N Lat.:	40.507441 <b>Lo</b> i	ng.: -80.97285	i8 <b>D</b> a	tum: NAD83
Soil Map Unit Name: Or; Orville silt l			classification:		
Are climatic/hydrologic conditions on	the site typical for this time of ye	ear? Yes • No O (If no	, explain in Ren	narks.)	
			l Circumstances	s" present? Yes	● No ○
Are Vegetation, Soil	, or Hydrology naturally pr			swers in Remarks.)	
Summary of Findings - Att	ach site map showing s	,		•	eatures, etc
Hydrophytic Vegetation Present?	Yes   No				
Hydric Soil Present?	Yes   No	Is the Sampled Area	v (a) N- (	)	
Wetland Hydrology Present?	Yes   No	within a Wetland?	Yes   No	)	
Remarks: PSS portion of a PEM/PSS/PFO wetla	and complex located in the floodpl	lain of perennial stream S-CBA	-023.		
Hydrology					
Wetland Hydrology Indicators:  Primary Indicators (minimum of one  Surface Water (A1)  High Water Table (A2)  Saturation (A3)  Water Marks (B1)  Sediment Deposits (B2)  Drift deposits (B3)  Algal Mat or Crust (B4)  Iron Deposits (B5)  Inundation Visible on Aerial Imagery  Water-Stained Leaves (B9)	True Aquatic Plants Hydrogen Sulfide O Oxidized Rhizosphe Presence of Reduce Recent Iron Reduct Thin Muck Surface Other (Explain in Re	Odor (C1) eres along Living Roots (C3) ed Iron (C4) tion in Tilled Soils (C6) (C7)	Surface Soi Sparsely Ve Drainage Pa Moss Trim I Dry Season Crayfish Bu Saturation Stunted or Geomorphic Shallow Aqu	Water Table (C2) rrows (C8) Visible on Aerial Imager Stressed Plants (D1) C Position (D2) uitard (D3)	ce (B8)
Aquatic Fauna (B13)			✓ FAC-neutra	raphic Relief (D4)	
Field Observations:			TAC Heatra	1 1031 (123)	
Surface Water Present? Yes	No   Depth (inches):				
Water Table Present? Yes	No Depth (inches):			_	
Saturation Present?	No Depth (inches):	Wetland Hyd	rology Present?	Yes • No	$\supset$
(includes capillary fringe)  Describe Recorded Data (stream gau	uge, monitoring well, aerial photos	s, previous inspections), if avai	lable:		
Remarks:					
Primary source of hydrology is overla	and flow from adjacent perennial	stream S-CBA-023.			

# Wetland 39b **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

		Dominant Species 2		Sampling Point: W-CBA-016 PSS
	Absolute	ixciioti ati	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0	0.0%		That are OBL, FACW, or FAC: 4 (A)
2				Total Number of Dominant
3	0			Species Across All Strata: 5 (B)
4				Develop of developed Consider
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 80.0% (A/B)
6	0			That the obe, thew, of the
7	0			Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
		= Total Cover		OBL species $45 \times 1 = 45$
1.		0.0%		FACW species $100$ x 2 = $200$
2		0.0%		FAC species $\underline{5}$ x 3 = $\underline{15}$
3		0.0%		FACU species $0 \times 4 = 0$
4		0.0%		UPL species $\frac{40}{}$ x 5 = $\frac{200}{}$
5.		0.0%		Column Totals: 190 (A) 460 (B)
6	•	0.0%		Prevalence Index = B/A =2.421
7		0.0%		
8	_	0.0%		Hydrophytic Vegetation Indicators:
9.		0.0%		Rapid Test for Hydrophytic Vegetation
10.	0	0.0%		✓ Dominance Test is > 50%
		= Total Cover		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size: 15' radius )	45		OBL	Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1. Alnus serrulata			OBL	Problematic Hydrophytic Vegetation (Explain)
2. <u>Cornus alba</u>	0	30.8%	FACW	
3	0			<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6				Tree stratum – Consists of woody plants, excluding vines, 3
7				in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5' radius</u> )	65	= Total Cover		regardless of height. Sapling/shrub stratum – Consists of woody plants, excluding
1. Phalaris arundinacea	30	24.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Verbesina alternifolia	5	4.0%	FAC	Herb stratum – Consists of all herbaceous (non-woody)
3. Agrimonia microcarpa	40	32.0%	UPL	plants, regardless of size, and all other plants less than 3.28 ft tall.
4. Lysimachia nummularia	50	40.0%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0			
6	0			Five Vegetation Strata:
7	0			Tree - Woody plants, excluding woody vines, approximately
8	0			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0			diameter at breast height (DBH). Sapling stratum – Consists of woody plants, excluding
10	0			woody vines, approximately 20 ft (6 m) or more in height and
11	0			less than 3 in. (7.6 cm) DBH.
12	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	125	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3.	0	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		Hadanahada
nydrophytic y control of the control		Hydrophytic Vegetation		
		= Total Cover		Present? Yes No No
Remarks: (Include photo numbers here or on a separate she				
remarks. (Include prioro numbers nere or on a separate sne	eu. <i>)</i>			

Soil Sampling Point: W-CBA-016 PSS

Profile Descr	ription: (Describe to	the depth	needed to docume	nt the indi	cator or co	onfirm the	absence of indicators.)				
Depth	Matrix		R	edox Featu	-						
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks			
0-4	10YR 4/3	100					Silt Loam				
4-16	10YR 4/2	90	10YR 4/6	10	С	М	Silt Loam				
	-										
				_							
<sup>1</sup> Type: C=Con	centration. D=Depleti	on. RM=Red	uced Matrix, CS=Cov	ered or Coat	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=1	Matrix			
Hydric Soil I	•		· · · · · · · · · · · · · · · · · · ·								
Histosol (			☐ Dark Surface	(S7)				ematic Hydric Soils <sup>3</sup> :			
`	pedon (A2)		Polyvalue Be	. ,	(S8) (MLRA	147.148)	2 cm Muck (A10)	(MLRA 147)			
Black Hist			☐ Thin Dark Su				Coast Prairie Red	ox (A16)			
	Sulfide (A4)		Loamy Gleye			,	(MLRA 147,148)				
	Layers (A5)		✓ Depleted Ma		,		Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)			
	k (A10) (LRR N)		Redox Dark				Very Shallow Dar	k Surface (TE12)			
	Below Dark Surface (A	A11)	Depleted Da	k Surface (F	7)		Other (Explain in				
	k Surface (A12)	/	Redox Depre		,			Remarks)			
Sandy Mu	ıck Mineral (S1) (LRR	N,	Iron-Mangan MLRA 136)	ese Masses	(F12) (LRR	N,					
MLRA 147, 148)  Sandy Gleyed Matrix (S4)			Umbric Surfa	rce (F13) (M	I RA 136. 12	72)					
Sandy Re			☐ Piedmont Flo				<sup>3</sup> Indicators of	hydrophytic vegetation and			
	Matrix (S6)						wetland hydrology must be present, unless disturbed or problematic.				
Запрреа п	riatrix (50)		Red Parent N	riateriai (FZI	) (MLKA 12	7, 147)	uniess dis	starbed or problematic.			
	ayer (if observed):										
Type:							Hydric Soil Present?	Yes ● No ○			
Depth (inc	:hes):						Tryunc 3011 Fresent:	Tes © NO ©			
Remarks:											

Wetland 39c

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Project/Site: Carrollton-Gable	City/County: Carroll Sampling Date: 14-Nov-18	
Applicant/Owner: AEP	State: OH Sampling Point: W-CBA-016 PFO	
Investigator(s): C.Ashbaugh, B.Miller	Section, Township, Range: S 6 T 15N - Lee	<b>R</b> 4W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, convex, none): concave Slope: 0.5% /	0.3 °
Subregion (LRR or MLRA): MLRA 127 in LRR N Lat.:	: 40.507249	3
Soil Map Unit Name: Or; Orville silt loam, 0 to 3 percent slopes, occa		
Are climatic/hydrologic conditions on the site typical for this time of y	year? Yes   No   (If no, explain in Remarks.)	
	ntly 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 O		
Hydric Soil Present? Yes   No	Is the Sampled Area Yes  No	
Wetland Hydrology Present? Yes  No  No	within a Wetland?	
Remarks: PFO portion of a PEM/PSS/PFO wetland complex located in the flood	dplain of perennial stream S-CBA-023.	
Hydrology		
Water Marks (B1) Sediment Deposits (B2) Drift deposits (B3) Algal Mat or Crust (B4) Drinn Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Aquatic Fauna (B13)  Field Observations: Surface Water Present? Presence of Redu Recent Iron Redu Other (Explain in Deposits (B5) Depth (inches):	Ints (B14)  Sparsely Vegetated Concave Surface (B8)  Drainage Patterns (B10)  Moss Trim Lines (B16)  Luced Iron (C4)  Luction in Tilled Soils (C6)  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)  Wetland Hydrology Present?  Yes No	
Describe Need Data (Stream gaage, montening well, dental prior	ios, previous inspections), il uvuliuble.	
Remarks: Primary source of hydrology is overland flow from adjacent perennia	al stream S-CBA-023.	

# Wetland 39c **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

		_	ominant		Sampling Point: W-CBA-016 PFO
Tree Stratum (Plot size: <u>30' radius</u> )	Absolute % Cover	R	pecies? - el.Strat. over	Indicator Status	Dominance Test worksheet:
Salix nigra	60	<b>V</b>	100.0%	OBL	Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
)			0.0%		
			0.0%		Total Number of Dominant Species Across All Strata: 4 (B)
			0.0%		Species Across Air Strata.
			0.0%		Percent of dominant Species
			0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
			0.0%		Prevalence Index worksheet:
			0.0%		Total % Cover of: Multiply by:
		= T	otal Cover		OBL species
apling-Sapling/Shrub Stratum (Plot size: 15' radius	_)				FACW species 30 x 2 = 60
. Salix nigra			100.0%	OBL	FAC species $30 \times 3 = 90$
			0.0%		FACU species $0 \times 4 = 0$
			0.0%		
			0.0%		
j			0.0%		Cordini rocars:(A)
			0.0%		Prevalence Index = B/A =1.692_
·			0.0%		Hydrophytic Vegetation Indicators:
S			0.0%		Rapid Test for Hydrophytic Vegetation
)	0		0.0%		✓ Dominance Test is > 50%
)	0		0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	10	= T	otal Cover	•	Morphological Adaptations <sup>1</sup> (Provide supporting
	0		0.0%		data in Remarks or on a separate sheet)
<u>.</u>			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
l <u></u>	_		0.0%		be present, unless disturbed or problematic.
j	0		0.0%		Definition of Vegetation Strata:
)			0.0%		Four Vegetation Strata:
7.	0		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
lerb Stratum (Plot size: 5' radius )	0	= T	otal Cover		regardless of height.
Phalaris arundinacea	30	<b>V</b>	50.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
Verbesina alternifolia	30		50.0%	FAC	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody)
- Persesina dicermina	0	$\Box$	0.0%		plants, regardless of size, and all other plants less than 3.28
		$\Box$	0.0%		ft tall, Woody vines – Consists of all woody vines greater than 3.28
		$\Box$	0.0%		ft in height.
	•		0.0%		
;		$\Box$	0.0%		Five Vegetation Strata:
·			0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
· L			0.0%		diameter at breast height (DBH).
			0.0%		Sapling stratum – Consists of woody plants, excluding
			0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2.		$\Box$	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		 = To	otal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Voody Vine Stratum (Plot size:)			0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
)	0		0.0%		3 ft (1 m) in height.
).			0.0%		Woody vines – Consists of all woody vines, regardless of
			0.0%		height.
5			0.0%		Hadranday.
)			0.0%		Hydrophytic Vegetation
	0	= T	otal Cove	r	Present? Yes No
					1

Soil Sampling Point: W-CBA-016 PFO

Profile Descr	iption: (De	scribe to	the depth	needed to	documen	t the indic	ator or co	onfirm the	absence of indicators.)		
Depth		Matrix			Re	dox Featu	res				
(inches)	Color (	moist)	<u>%</u>	Color	(moist)	%	Tvpe 1	Loc2	Texture	Remarks	
0-4	10YR	4/3	100						Silt Loam		
4-16	10YR	4/2	90	10YR	4/6	10	C	M	Silt Loam		
									- One Louin		
<sup>1</sup> Type: C=Cond	centration. D	=Depletio	n. RM=Red	uced Matrix,	CS=Cove	red or Coate	ed Sand Gr	rains <sup>2</sup> Loca	ation: PL=Pore Lining. M=Ma	atrix	
Hydric Soil I	ndicators:								Indicators for Probler	matic Undric Scile <sup>3</sup> .	
Histosol (/				Dar	k Surface (	(S7)			_	•	
`	pedon (A2)				,	w Surface (	'S8) (MI RA	147 148)	2 cm Muck (A10) (	MLRA 147)	
Black Hist						face (S9) (M	. , .		Coast Prairie Redox	(A16)	
	Sulfide (A4)					Matrix (F2)		,	(MLRA 147,148)		
	Layers (A5)				leted Matr		,		Piedmont Floodplai	in Soils (F19)	
	k (A10) (LRR	NI				urface (F6)			(MLRA 136, 147)	0 ( (==+0)	
			443			Surface (F	7)		Very Shallow Dark		
	Below Dark	-	11)		ox Depress		/)		Other (Explain in R	emarks)	
	k Surface (A					se Masses (	E12) (LDD	N			
□□ Sandy Mu MLRA 147	ick Mineral (5	51) (LRR N	١,	MLF	1-Mangane: RA 136)	se masses (	[F12] (LKK	IV,			
	eyed Matrix (	<b>C</b> (1)		Um	bric Surfac	e (F13) (ML	RA 136, 1	22)			
Sandy Red		JT)				odplain Soils			<sup>3</sup> Indicators of hy	ydrophytic vegetation and	
	Matrix (S6)									ology must be present, urbed or problematic.	
запрреи г	viaurix (30)			Red	Parent Ma	aterial (F21)	) (MLKA 12	27, 147)	uniess dist	urbed or problematic.	
Restrictive La	ayer (if obs	erved):									
Туре:											
Depth (incl	hes):								Hydric Soil Present?	Yes   No	
Remarks:	,										
Kemarks.											

Upland 39

# WETLAND DETERMINATION DATA FORM - Eastern Mountains and Piedmont Region

Carroliton-Gable			City/Co	Carroll				Sampl	ing Date:	14-Nov-1	3
Applicant/Owner: AEP			State:	ОН	Sampling	g Poin	t:	W	/-CBA-01	L6 UPL	
Investigator(s): C.Ashbaugh, B.Miller			Section	n, Township, I	Range: S	6	т	15N - L	.ee		<b>R</b> 4W
Landform (hillslope, terrace, etc.):	Floodplain		Local rel	ief (concave,	convex, n	one):	flat		Slope:	0.0%	/0.0_°
Subregion (LRR or MLRA): MLRA	127 in LRR N	Lat.:	40.5076	529	Lone	<b>q.:</b> -{	30.97310	)7	D	Datum: NA	D83
Soil Map Unit Name: Or; Orville silt	loam, 0 to 3 pe	rcent slopes, occa	ssionally	flooded			ication:				
Are climatic/hydrologic conditions or	1 the site typical	for this time of y	ear? Ye	es 💿 No 🔾	(If no,	expla	in in Ren	narks.)			
Are Vegetation $\square$ , Soil $\square$	, or Hydrology	significant	ly disturb	ed? Are	"Normal	Circui	mstances	s" present	? Yes	● No	$\supset$
Are Vegetation $\Box$ , Soil $\Box$	, or Hydrology	naturally p	roblemat	tic? (Tf	needed, e	vnlaii	n anv and	swers in R	}emarks.)	1	
Summary of Findings - At				•		-	-		-		s, etc
Hydrophytic Vegetation Present?	Yes O No	•									
Hydric Soil Present?	Yes O No	•		Is the Sample	ed Area						
•	Yes O No			within a Wet	land?	Yes	O No (	<b>)</b> )			
Wetland Hydrology Present?	162 0 140										
Hydrology											
Wetland Hydrology Indicators:						Secon	ndary Indi	cators (min	nimum of ty	wo reauired)	
Primary Indicators (minimum of on	e required; che	ck all that apply)						l Cracks (B		vo readirea	_
Surface Water (A1)		True Aquatic Plant	s (B14)					•	oncave Surf	face (B8)	
High Water Table (A2)		Hydrogen Sulfide	Odor (C1)					atterns (B1			
Saturation (A3)		Oxidized Rhizosph	eres along	Living Roots (	C3)	M	oss Trim	Lines (B16)	)		
Water Marks (B1)		Presence of Reduc	ced Iron (C	24)		D	ry Season	Water Tab	ole (C2)		
Sediment Deposits (B2)	L	Recent Iron Reduc	ction in Till	ed Soils (C6)			•	rrows (C8)			
Drift deposits (B3)	L	Thin Muck Surface	(C7)						Aerial Imag	jery (C9)	
☐ Algal Mat or Crust (B4)	L	Other (Explain in F	Remarks)					Stressed Pl	. ,		
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imager	a. (P7)						-	Position (			
Water-Stained Leaves (B9)	y (b/)							uitard (D3) raphic Relie			
Aquatic Fauna (B13)								rapnic Reile I Test (D5)	. ,		
Field Observations:							-te ricatia	r rest (DS)			
Surface Water Present? Yes	No 💿	Depth (inches):									
Water Table Present? Yes	No 💿	Depth (inches):									
Saturation Present?		Depth (inches):		Wet	land Hydro	ology	Present?	? Yes	O No	, •	
(includes capillary fringe)  Describe Recorded Data (stream ga			s, previo	us inspections	s), if availa	able:					
Remarks:											
No hydrology observed.											
ino fiyarology observed.											
I											

Upland 39 **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

,		Dominant		Sampling Point: W-CBA-016 UPL
	Absolute	—Species? – Rel.Strat.	Indicator	Dominance Test worksheet:
	% Cover		Status	Number of Dominant Species
1. Prunus serotina	75	✔ 88.2%	FACU	That are OBL, FACW, or FAC:  0 (A)
2. Malus angustifolia	10	11.8%_	UPL	
3	0	0.0%		Total Number of Dominant Species Across All Strata: 5 (B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species  That Are OBL_FACW_or_FAC:  0.0% (A/B)
6	_	0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
7	0			Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(Diet size)	,85 :	= Total Cover		OBL species
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species
1		0.0%		FAC species $0 \times 3 = 0$
2	_	0.0%		FACU species $95 \times 4 = 380$
3		0.0%		UPL species $\frac{20}{3}$ x 5 = $\frac{100}{3}$
4		0.0%		ore species ————————————————————————————————————
5		0.0%		COTAINIT TOCATO
6		0.0%		Prevalence Index = $B/A = \underline{4.174}$
7		0.0%		Hydrophytic Vegetation Indicators:
8				Rapid Test for Hydrophytic Vegetation
9				☐ Dominance Test is > 50%
10	0			☐ Prevalence Index is $\leq$ 3.0 $^1$
Shrub Stratum (Plot size: 15' radius )	:	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1. Rosa multiflora	5	<b>✓</b> 50.0%	FACU	data in Remarks or on a separate sheet)
2. Lonicera morrowii	5	<b>✓</b> 50.0%	FACU	☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3	0	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	_	0.0%		be present, unless disturbed or problematic.
5	0	0.0%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: 5' radius )		= Total Cover		regardless of height.
	10	<b>✓</b> 50.0%	UPL	Sapling/shrub stratum – Consists of woody plants, excluding
Agrimonia microcarpa     Taraxacum officinale		50.0%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
	0	0.0%	TACO	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
34		0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
		0.0%		ft in height.
5		0.0%		
6		0.0%		Five Vegetation Strata:
7 8.		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
		0.0%		diameter at breast height (DBH).
9		0.0%		Sapling stratum – Consists of woody plants, excluding
10		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11		0.0%		Shrub stratum – Consists of woody plants, excluding woody
12		= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1	0			woody species, except woody vines, less than approximately
2	0			3 ft (1 m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of
4	0			height.
5	0	0.0%		Hydrophytic
6	0			Vegetation No. No. Ala
	0	= Total Cove	·	Present? Yes V NO V
Remarks: (Include photo numbers here or on a separate s	heet.)			
	,			

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

Soil Sampling Point: W-CBA-016 UPL

Profile Descri	iption: (Describe	to the depth	needed to document	the indica	ator or co	nfirm the	absence of indicators.)					
Depth	Matrix	<u> </u>	Red	ox Featur								
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks				
0-12	10YR 4/4	100					Silt Loam					
12-16	10YR 5/4	100					Silt Loam					
				-								
<sup>1</sup> Type: C=Cond	centration. D=Deple	etion. RM=Redu	ced Matrix, CS=Covere	d or Coate	d Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=N	4atrix				
Hydric Soil I	ndicators:						Indicators for Proble	ematic Hydric Soils <sup>3</sup> :				
Histosol (A	A1)		☐ Dark Surface (S	7)			2 cm Muck (A10)	-				
Histic Epip	pedon (A2)		Polyvalue Below	Surface (S	58) (MLRA	147,148)						
Black Histi	ic (A3)		Thin Dark Surfa	ce (S9) (M	LRA 147, 1	48)	Coast Prairie Redo (MLRA 147,148)	DX (A16)				
Hydrogen	Sulfide (A4)		Loamy Gleyed N	1atrix (F2)			Piedmont Floodpl	ain Soils (F19)				
Stratified	Layers (A5)		Depleted Matrix				(MLRA 136, 147)	( ( )				
2 cm Mucl	k (A10) (LRR N)		Redox Dark Sur	` '			Very Shallow Dar	k Surface (TF12)				
Depleted I	Below Dark Surface	(A11)	Depleted Dark S		)		Other (Explain in	Remarks)				
Thick Dark	k Surface (A12)		Redox Depressi	. ,								
Sandy Mu MLRA 147	ck Mineral (S1) (LRF	R N,	☐ Iron-Manganese MLRA 136)	Masses (F	-12) (LRR I	Ν,						
			Umbric Surface	(F13) (MLF	RA 136, 12	2)						
Sandy Red	eyed Matrix (S4)		☐ Piedmont Flood				<sup>3</sup> Indicators of	hydrophytic vegetation and				
	Matrix (S6)		Red Parent Mat				wetland hydrology must be present, unless disturbed or problematic.					
Запрреи г	-lattix (50)		Red Parent Mat	eriai (FZI)	(MLKA 12)	7, 147)	uniess dis	sturbed of problematic.				
Restrictive La	ayer (if observed)	):										
Type:							Hydric Soil Present?	Yes ○ No •				
Depth (inch	hes):						Hydric Soil Present?	Yes ○ No •				
Remarks:												

Wetland 39abc		Rater(s): C. ASHBA	JUGH/B.MILLER	Date:	11/14/2018
	2 2	Metric 1. Wetland Area (size).	W-CBA-016 PEM-PS	SS-PFO	
max 6 pts	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  x 0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04ha) (0 pts)	0.29 acres	S	
	10 12	Metric 2. Upland buffers and sur	rounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around x MEDIUM. Buffers average 25m to <50m (82 to <16-NARROW. Buffers average 10m to <25m (32ft to <16-VERY NARROW. Buffers average <10m (<32ft) arc	wetland perimeter (7) 4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1)	heck.	
		2b. Intensity of surrounding land use. Select one     X VERY LOW. 2nd growth or older forest, prairie, sav.     X LOW. Old field (>10 years), shrubland, young secon     MODERATELY HIGH. Residential, fenced pasture,     HIGH. Urban, industrial, open pasture, row cropping	annah, wildlife area, etc. (7) d growth torest. (5) park, conservation tillage, new fallow fiel	d. (3)	
	21.0 33	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1) Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select one.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)  x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime. Source water (12)  X Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances obserditch tile dike weir stormwater input	human use (1) est), complex (1) or (1) ation. Score one or dbl che //saturated (4) 3) 0cm (12in) (1) ge.	
	10 43	Metric 4. Habitat Alteration and I	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double of None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and as Excellent (7) Very good (6) X Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check of None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	sign score.  k and average. Check all disturbances observe.  x mowing grazing clearcutting selective cutting woody debris removal	d shrub/sapling removal herbaceous/aquatic bed rem sedimentation dredging farming nutrient enrichment	oval
	43	page ORAM v. 5.0 Field Form Quantitative Rating			

e ORAM v. 5.0 Field Form Quantitative Ratin

Wetland 3	39abc		Rater(s): C. ASHBA	UGH	I/B.MILLER	Date:	11/14/2018
		43			W-CBA-016 PEM-PSS-PFO		
	subtota	this page	Metric 5. Special Wetlands.				
max 10 pts.	subtota		Check all that apply and score as indic	ated			
шах IV pts.	Sauroa		Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolo Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endan Significant migratory songbird/water fowl habitat or u	ology (* ogy (5) ngered s isage (*	10) species (10) 10)		
	8	51	Category 1 Wetland. See Question 5 Qualitative Rat  Metric 6. Plant communities, inte	• •			
max 20pts.	subtota		6a. Wetland Vegetation Communities.	erspe	Vegetation Community Cov		
			Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a	cres) contiguous area	
		1 2	Aquatic bed Emergent Shrub	1	Present and either comprises small pa vegetation and is of moderate quality, significant part but is of low quality		
		2	Forest	2	Present and either comprises significa		
		-	Mudflats Open water		vegetation and is of moderate quality of part and is of high quality	or comprises a small	
		-	Other	3	Present and comprises significant part	or more, of wetland's 3	4
			6b. horizontal (plan view) Interspersion.	Ü	vegetation and is of high quality	, or more, or weating of	
		_	Select only one.				
		_	High (5) Moderately high(4)		Narrative Description of Vegetation  Low spp diversity and/or predominance		
		×	Moderate (3)		disturbance tolerant native species	e of normative of low	
			Moderately low (2)		Native spp are dominant component or	f the vegetation, mod	
			Low (1)		although nonnative and/or disturbance		
			None (0)		can also be present, and species diver	,	
			6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres	ence of rare	
			Table 1 ORAM long form for list. Add or deduct points for coverage		threatened or endangered spp to  A predominance of native species, with	n nonnative enn high	
			Extensive >75% cover (-5)		and/or disturbance tolerant native spe		
		х	Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
			Sparse 5-25% cover (-1)		the presence of rare, threatened, or er	ndangered spp	
			Nearly absent <5% cover (0)		M -18-1 1 0 W-1 0 0 1	••	
			Absent (1) 6d. Microtopography.	0	Mudflat and Open Water Class Qual Absent <0.1ha (0.247 acres)	ity	
			Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 acres)		
		1	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
		1	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more		
		1	Standing dead >25cm (10in) dbh		Microtonography Cover Scale		
			Amphibian breeding pools	Ω	Microtopography Cover Scale Absent		
				1	Present very small amounts or if more	common	
					of marginal quality		
Catagonia				2	Present in moderate amounts, but not		
Category 2	<u></u>	=-		_	quality or in small amounts of highest of		
	51 GR/	AND TO	OTAL(max 100 pts)	3	Present in moderate or greater amoun	ts	
					and of highest quality		



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

Wetland 39a

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing North



### Wetland 39a

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing East





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 39a

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing South



### Wetland 39a

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Facing West





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 39a

Date:

November 14, 2018

**Description:** 

PEM

Category 2

Soil Pit



### Wetland 39b

Date:

November 14, 2018

**Description:** 

**PSS** 

Category 2

Facing North





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 39b

Date:

November 14, 2018

**Description:** 

**PSS** 

Category 2

Facing East



### Wetland 39b

Date:

November 14, 2018

**Description:** 

PSS

Category 2

Facing South





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

# Wetland 39b

Date:

November 14, 2018

**Description:** 

PSS

Category 2

Facing West



### Wetland 39b

Date:

November 14, 2018

**Description:** 

PSS

Category 2

Soil Pit





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 39c

Date:

November 14, 2018

**Description:** 

PFO

Category 2

Facing North



### Wetland 39c

Date:

November 14, 2018

**Description:** 

PFO

Category 2

Facing East





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

Wetland 39c

Date:

November 14, 2018

**Description:** 

PFO

Category 2

Facing South



### Wetland 39c

Date:

November 14, 2018

**Description:** 

PFO

Category 2

Facing West





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

# Wetland 39c

Date:

November 14, 2018

**Description:** 

PFO

Category 2

Soil Pit



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

# Wetland 40a

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

Project/Site: Carrollton-Gable 138 kV Transr	nission Line City/Coun	ty: Carroll County	Sampling Date: 12-Feb-19
Applicant/Owner: AEP		State: OH	Sampling Point: w-aeh-021219-02a
Investigator(s): JTT, AEH	Section, 7	Township, Range: S 33	T 12N R 4W
Landform (hillslope, terrace, etc.): Toes	lope Local relief	(concave, convex, none):	concave <b>Slope:</b> 0.0% /0.0 °
Subregion (LRR or MLRA): LRR N	<b>Lat.:</b> 40.507035	. Long.: -{	80.972188 <b>Datum:</b>
Soil Map Unit Name: Or	101007000		NWI classification: R5UBH
Are climatic/hydrologic conditions on the s	ite typical for this time of year? Yes	No	in in Remarks.)
Are Vegetation $\square$ , Soil $\square$ , or H	lydrology 🗌 significantly disturbed	i? Are "Normal Circur	mstances" present? Yes   No
Are Vegetation, Soil, or H	lydrology	? (If needed, explain	n any answers in Remarks.)
Summary of Findings - Attach	site map showing sampling	ງ point locations, tາ	ransects, important features, etc.
Hydrophytic Vegetation Present? Yes	● No ○		
Hydric Soil Present? Yes	● No ○ Is	the Sampled Area	● No ○
Wetland Hydrology Present? Yes	No O wi	ithin a Wetland?	J NO C
Remarks:			
into big QH stream.	of stream qh-cba-20181114-23 (Elkho	rn Creek). Stream hh-aeh	n-021219-02 flows through the wetland and
Hydrology			
Wetland Hydrology Indicators:		Secon	ndary Indicators (minimum of two required)
Primary Indicators (minimum of one requ	uired; check all that apply)	St	urface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	☐ Sp	parsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfide Odor (C1)	<b>✓</b> Dı	rainage Patterns (B10)
Saturation (A3)	Oxidized Rhizospheres along Liv	ving Roots (C3)	loss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)		ry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled	Soils (C6)	rayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)		aturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	Other (Explain in Remarks)		tunted or Stressed Plants (D1)
☐ Iron Deposits (B5)			eomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)			hallow Aquitard (D3)
Water-Stained Leaves (B9)			licrotopographic Relief (D4)
Aquatic Fauna (B13)		<b>✓</b> FA	AC-neutral Test (D5)
Field Observations: Surface Water Present?  Yes  No	Depth (inches): 1		
_		_	
		Wetland Hydrology	Present? Yes   No
(includes capillary fringe) Yes No	Depth (inches): 0		
Describe Recorded Data (stream gauge, n	nonitoring well, aerial photos, previous	inspections), if available:	
Demonico			
Remarks:			
Hydrology sourced from precipitation and	adjacent streams		

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

		—Species? –		Sampling Point: <u>w-aen-021219-02a</u>
	Absolute	Rel.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	
4	0	0.0%		Number of Dominant Species That are ORL FACILITY or FACILITY (A)
1				That are OBL, FACW, or FAC:2 (A)
2				Total Number of Dominant
3	0			Species Across All Strata:2(B)
4	0	0.0%		
5	0	0.0%		Percent of dominant Species
	•	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
6				
7	0			Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	Ω	= Total Cover		OBL species $0 \times 1 = 0$
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 85 x 2 = 170
1		0.0%		
2		0.0%		FAC species $0 \times 3 = 0$
3		0.0%		FACU species $0 \times 4 = 0$
•••				UPL species $0 \times 5 = 0$
4				'
5	0			Column Totals: <u>85</u> (A) <u>170</u> (B)
6	0	0.0%		Prevalence Index = $B/A = 2.000$
7	0	0.0%		
8		0.0%		Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
10	0	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
		0.0%		data in Remarks or on a separate sheet)
1				Problematic Hydrophytic Vegetation 1 (Explain)
2				Problematic Hydrophytic vegetation (Explain)
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4		0.0%		be present, unless disturbed or problematic.
5		0.0%		Definition of Vegetation Strata:
				Four Vegetation Strata:
6				Tree stratum – Consists of woody plants, excluding vines, 3 in.
7	0	0.0%		(7.6 cm) or more in diameter at breast height (DBH),
_Herb Stratum (Plot size:)	0	= Total Cover		regardless of height.
	50	<b>✓</b> 58.8%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
1. Phalaris arundinacea				vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Poa palustris	25	29.4%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants,
3. Lysimachia nummularia	5	5.9%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4. Vitis riparia	5	5.9%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft
5	0	0.0%		in height.
	0	0.0%		
6				Five Vegetation Strata:
7	0			Tree - Woody plants, excluding woody vines, approximately 20
8	0	0.0%		ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9.	0	0.0%		diameter at breast height (DBH).
10		0.0%		Sapling stratum – Consists of woody plants, excluding woody
	0	0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11				Shrub stratum – Consists of woody plants, excluding woody
12	0	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
_Woody Vine Stratum_ (Plot size:)	85	= Total Cover		Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
• •				species, except woody vines, less than approximately 3 ft (1
2	0			m) in height.
3	0			Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5	0	0.0%		
	0			Hydrophytic
6				Vegetation   Yes • No O
	0	= Total Cover	·	Troscite:
Remarks: (Include photo numbers here or on a separate she	et.)			
(2.1101000 prioto maniporo nere or on a separate site	,			

Soil Sampling Point: w-aeh-021219-02a

Profile Descr		the depth i				nfirm the	absence of indicators.)	
Depth	Matrix			dox Featı	ures 1	12	Tandrica	n
(inches) 0-16	<b>Color (moist)</b> 10YR 5/2	<b>%_</b> 95	Color (moist) 10YR 4/6	<b>%</b> 5	Tvpe 1	Loc <sup>2</sup>	Texture Silt Loam	Remarks
			10110 -70				Silt Louili	
							,	
1								
		on. RM=Redu	ced Matrix, CS=Cover	red or Coat	ted Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	1atrix
Hydric Soil I							Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol (	•		☐ Dark Surface (	. ,	(60) (44) 5.4	4.47.4.40\	2 cm Muck (A10)	(MLRA 147)
	pedon (A2)		Polyvalue Belo				Coast Prairie Redo	ox (A16)
Black Hist	tic (A3) 1 Sulfide (A4)		☐ Thin Dark Surf			(48)	(MLRA 147,148)	
	Layers (A5)		<ul><li>Loamy Gleyed</li><li>✓ Depleted Matri</li></ul>		(2)		Piedmont Floodpl	ain Soils (F19)
	k (A10) (LRR N)		Redox Dark Su				(MLRA 136, 147)	C ( (TF12)
	Below Dark Surface (A	(11)	Depleted Dark	. ,			Very Shallow Dar	
	k Surface (A12)	(11)	Redox Depress	-	.,		Other (Explain in	Remarks)
	ıck Mineral (S1) (LRR I	N	☐ Iron-Manganes		(F12) (LRR	N,		
MLRA 147	7, 148)	٧,	MLRA 136)		. , .	•		
Sandy Gle	eyed Matrix (S4)		Umbric Surface	e (F13) (M	ILRA 136, 12	22)	3- 11	
☐ Sandy Re	dox (S5)		☐ Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	Indicators of wetland hyd	hydrophytic vegetation and Irology must be present,
Stripped I	Matrix (S6)		Red Parent Ma	iterial (F21	l) (MLRA 12	7, 147)		sturbed or problematic.
Restrictive I	ayer (if observed):							
Type:	ayer (ii observed).							
Depth (inc	:hes):						<b>Hydric Soil Present?</b>	Yes   No
Remarks:								
Kemarks.								

# Wetland 40b

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

Applicant/Owner: AEP  Section, Township, Range: S  AEH, JTT  Section, Township, Range: S  AEH, JTT  Section, Township, Range: S  AEH, JTT  Landform (hillslope, terrace, etc.): Floodplain  Local relief (concave, convex, none): concave  Slope: 0.0% / 0.0  Subregion (LRR or MLRA): LRR N  Lat.: 40.50714331  Long.: -80.97215628  Datum: NAD 83  Soil Map Unit Name: Orrville silt loam, 0 to 3 percent slopes (Or)  NWI classification: N/A  Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No \  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 \  No \  Is the Sampled Area   Yes   No   Yes   Yes   No   Yes   Yes   No   Yes   Y
Investigator(s): AEH, JTT Section, Township, Range: S 33 T 12N R 4W  Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): concave Slope: 0.0% / 0.0  Subregion (LRR or MLRA): LRR N Lat.: 40.50714331 Long.: -80.97215628 Datum: NAD 83  Soil Map Unit Name: Orrville silt loam, 0 to 3 percent slopes (Or) NWI classification: N/A  Are climatic/hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.)  Are Vegetation , Soil , or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No No Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present? Yes No
Landform (hillslope, terrace, etc.): Floodplain
Subregion (LRR or MLRA): LRR N  Lat.: 40.50714331  Long.: -80.97215628  Datum: NAD 83  Soil Map Unit Name: Orrville silt loam, 0 to 3 percent slopes (Or)  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 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.
Soil Map Unit Name: Orrville silt loam, 0 to 3 percent slopes (Or)  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.
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
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
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
Summary of Findings - Attach site map showing sampling point locations, transects, important features, etc.  Hydrophytic Vegetation Present?  Yes No Vegetation Present?
Voc. (a) No. (b)
Voc. 8 No.
Hydric Soil Present? Yes No Sisthe Sampled Area Yes No No Sisthe Sampled Area
Wetland Hydrology Present? Yes No Within a Wetland?
Remarks:
Hydrology
Wetland Hydrology Indicators:  Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that apply)  Surface Soil Cracks (B6)
✓ Surface Water (A1)       ☐ True Aquatic Plants (B14)       ☐ Sparsely Vegetated Concave Surface (B8)         ✓ High Water Table (A2)       ☐ Hydrogen Sulfide Odor (C1)       ☐ Drainage Patterns (B10)
✓ High Water Table (A2)       ☐ Hydrogen Sulfide Odor (C1)       ☐ Drainage Patterns (B10)         ✓ Saturation (A3)       ☐ Oxidized Rhizospheres along Living Roots (C3)       ☐ Moss Trim Lines (B16)
✓ Water Marks (B1)  Presence of Reduced Iron (C4)  Dry Season Water Table (C2)
Sediment Deposits (B2)  Recent Iron Reduction in Tilled Soils (C6)  Crayfish Burrows (C8)
☐ Drift deposits (B3) ☐ Thin Muck Surface (C7) ☐ Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Other (Explain in Remarks)  Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Shallow Aquitard (D3)
Water-Stained Leaves (B9)
☐ Aquatic Fauna (B13) FAC-neutral Test (D5)
Field Observations:
l
Surface Water Present? Yes No Depth (inches):2
Surface Water Present?  Yes No Depth (inches): 2  Water Table Present?  Yes No Depth (inches): 0  Depth (inches): 0  Westland Hydrology Present?  Yes No Depth (inches): 0
Surface Water Present? Yes No Depth (inches):2
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 Wetland Hydrology Present? Yes No Depth (inches): 0
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? Yes No Depth (inches): 0 Under table Present?
Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
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Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
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Surface Water Present? Yes No Depth (inches): 2 Water Table Present? Yes No Depth (inches): 0 Saturation Present? (includes capillary fringe) Yes No Depth (inches): 0 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

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

Tree Stratum (Plot size:)  1Carya laciniosa  2  3  4		R	el.Strat. over	Indicator Status	Dominance Test worksheet:  Number of Dominant Species
1. Carya laciniosa 2 3 4	45				Number of Dominant Species
2		<b>V</b>	100.0%		Number of Bollinant Species
2			200.070	FAC	That are OBL, FACW, or FAC:4 (A)
3 4			0.0%		
4			0.0%		Total Number of Dominant
		$\Box$	0.0%		Species Across All Strata:5(B)
		$\Box$	0.0%		Percent of dominant Species
5		$\Box$			That Are OBL, FACW, or FAC: 80.0% (A/B)
6			0.0%		
7			0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	, 45 :	= Te	otal Cove	r	OBL species 3 x 1 = 3
		<b>~</b>	90.00/	EAC	FACW species <u>53</u> x 2 = <u>106</u>
1. Carya laciniosa			80.0%	FAC	FAC species $70 \times 3 = 210$
2. Rubus allegheniensis		<b>V</b>	20.0%	FACU	FACU species $5 \times 4 = 20$
3	0		0.0%		2 10
4	0	$\sqcup$	0.0%		·
5	0		0.0%		Column Totals: 133 (A) 349 (B)
6	0		0.0%		Prevalence Index = $B/A = 2.624$
7	0		0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9.	_		0.0%		
0		П	0.0%		✓ Dominance Test is > 50%
			otal Cove		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)				Г	Morphological Adaptations <sup>1</sup> (Provide supporting
1		Ц	0.0%		data in Remarks or on a separate sheet)
2	0	Ш	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
3	0		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5			0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7			0.0%		Tree stratum - Consists of woody plants, excluding vines, 3 in.
		_ T	otal Cove		(7.6 cm) or more in diameter at breast height (DBH), regardless of height.
Herb Stratum (Plot size:)			otal Cove		Sapling/shrub stratum – Consists of woody plants, excluding
1. Poa palustris	30	<b>V</b>	47.6%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Lysimachia nummularia	15	<b>~</b>	23.8%	FACW	Herb stratum - Consists of all herbaceous (non-woody) plants,
3. Verbena urticifolia	5		7.9%	FAC	regardless of size, and all other plants less than 3.28 ft tall.
4. Vitis riparia	4		6.3%	FACW	Woody vines – Consists of all woody vines greater than 3.28 ft
5. Onoclea sensibilis	4		6.3%	FACW	in height.
6. Symplocarpus foetidus	3		4.8%	OBL	Five Vegetation Strate
7 Plantago lanceolata	2		3.2%	UPL	Five Vegetation Strata:
8.			0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
		$\Box$	0.0%		diameter at breast height (DBH).
9		Н			Sapling stratum – Consists of woody plants, excluding woody
0			0.0%		vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1	0	$\vdash$	0.0%		Shrub stratum – Consists of woody plants, excluding woody
2	0	Ш	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	63:	= To	otal Cove	r	Herb stratum - Consists of all herbaceous (non-woody) plants,
1	0		0.0%		including herbaceous vines, regardless of size, and woody
2.			0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
		$\overline{\Box}$	0.0%		Woody vines – Consists of all woody vines, regardless of
34.			0.0%		height.
5			0.0%		Hydrophytic
6	0		0.0%		Vegetation Present?  Yes  No
	0	= T	otal Cove	r	Fresent:

Soil Sampling Point: w-aeh-20190212-02b

Profile Descr		the depth i				nfirm the	absence of indicators.)		
Depth	Matrix			dox Feati	ures 1	12	Tanderse	_	aula a
(inches) 0-18	<b>Color (moist)</b> 10YR 4/2	<b>%</b> 97	Color (moist) 10YR 6/8	<b>%_</b>	Tvpe 1	Loc² PL	<u>Texture</u>	Rema	arks
U-10	10YR 4/2		10YR 6/8				Silty Clay		
	-								
	-								
<sup>1</sup> Type: C=Con	centration. D=Depletion	on. RM=Redu	ced Matrix, CS=Cover	ed or Coa	ted Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	1atrix	
Hydric Soil 1	Indicators:		_				Indicators for Proble	ematic Hydric	Soils <sup>3</sup> :
Histosol (	A1)		Dark Surface (				2 cm Muck (A10)	(MI RA 147)	
Histic Epi	pedon (A2)		Polyvalue Belo				Coast Prairie Red		
Black Hist			Thin Dark Surf	ace (S9) (	MLRA 147, 1	.48)	(MLRA 147,148)	)X (A10)	
	Sulfide (A4)		Loamy Gleyed		2)		☐ Piedmont Floodpl	ain Soils (F19)	
	Layers (A5)		✓ Depleted Matri				(MLRA 136, 147)	` ,	
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	. ,			Very Shallow Dar	k Surface (TF12	2)
	Below Dark Surface (A	\11)	Depleted Dark	-	<del>-</del> 7)		Other (Explain in	Remarks)	
	k Surface (A12)		Redox Depress		(=\C) (\ ==				
Sandy Mu MLRA 147	ıck Mineral (S1) (LRR I 7, 148)	N,	Iron-Manganes MLRA 136)						
Sandy Gle	eyed Matrix (S4)		Umbric Surface	e (F13) (M	LRA 136, 12	.2)	3 7 - 1 - 1 - 1 - 1	le de la colonida de	
Sandy Re	dox (S5)		☐ Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of wetland hyd	nyaropnytic veg Irology must be	getation and e present,
Stripped I	Matrix (S6)		Red Parent Ma	iterial (F21	.) (MLRA 12	7, 147)		sturbed or prob	
Restrictive L	ayer (if observed):								
Type:									
Depth (inc	:hes):						Hydric Soil Present?	Yes	No O
Remarks:									

Upland 40

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

Project/Site: Carrolton Gable			City/County:	Carroll County			Samp	oling Date:	12-Feb-	19
Applicant/Owner: AEP				State: Of	Н		Sampling Po			
Investigator(s): AEH, JTT			Section, Town	ship, Range: S	;	33	<b>T</b> 12N		4W	
Landform (hillslope, terrace, etc.):	Floodplain		Local relief (con	cave, convex,	none	e <b>):</b> r	none	Slope:	0.0%	/ <sub>0.0</sub> °
Subregion (LRR or MLRA): LRF		lat:	40.506885791	Lo	na ·		723632433		atum: N	
Soil Map Unit Name: Orrville silt							classification		acam	71D 03
Are climatic/hydrologic conditions	on the site tv	pical for this time of ve	ar? Yes 💿 I	lo 🔾 (If no	. exp	olain in	Remarks.)			
Are Vegetation $\square$ , Soil $\square$	, or Hydrol		y disturbed?				ances" presen	it? Yes	<ul><li>No</li></ul>	$\circ$
Are Vegetation, Soil	, or Hydrol	ogy 🗌 naturally pi	roblematic?	(If needed,	expl	ain an	y answers in	Remarks.)		
Summary of Findings - A	Attach site	map showing s	ampling po	int locatio	ns,	tran	sects, im	portant	featur	es, etc.
Hydrophytic Vegetation Present?	Yes 💿	No O								
Hydric Soil Present?	Yes $\bigcirc$	No •		Sampled Area	Voc		No (•)			
Wetland Hydrology Present?	Yes $\bigcirc$	No •	within	a Wetland?	163	, ,	10 🔾			
Remarks:										
Hydrology										
Wetland Hydrology Indicators:					Sec	condary	Indicators (mi	nimum of tv	vo require	d)
Primary Indicators (minimum of	one required;	check all that apply)				Surfac	e Soil Cracks (E	36)		
Surface Water (A1)		True Aquatic Plants	s (B14)			Sparse	ely Vegetated C	Concave Surf	ace (B8)	
High Water Table (A2)		Hydrogen Sulfide C	odor (C1)			Draina	ige Patterns (B	10)		
Saturation (A3)		Oxidized Rhizosphe	eres along Living R	oots (C3)		Moss	Trim Lines (B16	5)		
Water Marks (B1)		Presence of Reduce	` ,		Ц		eason Water Ta			
Sediment Deposits (B2)		Recent Iron Reduct		(C6)	Ц	,	sh Burrows (C8	•		
Drift deposits (B3)		Thin Muck Surface	(C7)		Ц		ition Visible on	-	ery (C9)	
Algal Mat or Crust (B4)		Other (Explain in R	emarks)		Ц		ed or Stressed F	. ,		
Iron Deposits (B5)							orphic Position	. ,		
Inundation Visible on Aerial Ima	gery (B7)						w Aquitard (D3			
Water-Stained Leaves (B9)							opographic Rel			
Aquatic Fauna (B13)					Ш	FAC-ne	eutral Test (D5	)		
Field Observations: Surface Water Present? Yes	O No •	Depth (inches):								
Water Table Present? Yes		Depth (inches):	7							
Saturation Present?		Depth (inches):	6	Wetland Hyd	rolog	y Pres	sent? Yes	s O No	lacktriangle	
(includes capillary fringe)  Describe Recorded Data (stream				actions) if avai	ماطحان	٠.				
Describe Recorded Data (stream	gauge, monit	oring well, derial priotos	s, previous irispo	ccions), ii avai	паріс					
Remarks:										
The market										

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

			pecies? -		Sampling Point: <u>upi-aen-20190212-02</u>
	Absolute	R	el Strat	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	C	over	Status	Number of Deminant Species
1. Carya laciniosa	60	<b>V</b>	80.0%	FAC	Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
	15	<b>V</b>	20.0%	FAC	
				TAC	Total Number of Dominant
3			0.0%		Species Across All Strata:5(B)
4	0	Ш	0.0%		
5	0		0.0%		Percent of dominant Species
6			0.0%		That Are OBL, FACW, or FAC: 80.0% (A/B)
			0.0%		Prevalence Index worksheet:
7					
8	0	Ш	0.0%		
Sapling-Sapling/Shrub Stratum (Plot size:	75	= T	otal Cove	•	OBL species <u>1</u> x 1 = <u>1</u>
			100.00/	F4.0	FACW species1 x 2 =2
1. Carya laciniosa	15	<b>V</b>		FAC	FAC species95 x 3 =285
2	0		0.0%		10 40
3	0		0.0%		TACO SPECIES X 4 -
4	_		0.0%		UPL species $\frac{3}{}$ x 5 = $\frac{15}{}$
• • •			0.0%		Column Totals: <u>110</u> (A) <u>343</u> (B)
5					
6			0.0%		Prevalence Index = B/A = 3.118
7			0.0%		Hydrophytic Vegetation Indicators:
8	0		0.0%		Rapid Test for Hydrophytic Vegetation
9.	_		0.0%		
0		П	0.0%		
0		_	otal Cove		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)		= 10	otai Covei		Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		☐ Problematic Hydrophytic Vegetation 1 (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
		$\Box$	0.0%		be present, unless disturbed or problematic.
4					Definition of Vegetation Strate.
5	0		0.0%		Definition of Vegetation Strata:
6	0		0.0%		Four Vegetation Strata:
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
		= To	otal Cove		regardless of height.
Herb Stratum (Plot size:)					Sapling/shrub stratum – Consists of woody plants, excluding
Polystichum acrostichoides	10	V	50.0%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Carya laciniosa	5	<b>~</b>	25.0%	FAC	Herb stratum – Consists of all herbaceous (non-woody)
3. Plantago lanceolata	3		15.0%	UPL	plants, regardless of size, and all other plants less than 3.28
4. Vitis riparia	1		5.0%	FACW	ft tall, Woody vines – Consists of all woody vines greater than 3.28
F. Carey sulpinaides	1	$\overline{\Box}$	5.0%	OBL	ft in height.
·				ODL	
6			0.0%		Five Vegetation Strata:
7	0		0.0%		Tree - Woody plants, excluding woody vines, approximately
8			0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
			0.0%		Sapling stratum – Consists of woody plants, excluding
0		$\equiv$			woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1			0.0%		Shrub stratum – Consists of woody plants, excluding woody
2	0	Ш	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	20	= T	otal Cove	•	Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
					woody species, except woody vines, less than approximately
2			0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
5	0		0.0%		
6.			0.0%		Hydrophytic
U	- —				Vegetation Present? Yes No
	0	= 1	otal Cove	1	
Remarks: (Include photo numbers here or on a separate sh	eet.)				
•	-				

Soil Sampling Point: upl-aeh-20190212-02

Profile Descr		the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indicators.)	
Depth	Matrix			dox Featu	ires 1			
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks
0-7	10YR 4/2						Silty Clay	
7-18	10YR 6/4	100					Silty Clay	
						-	,	
	-							
<sup>1</sup> Type: C=Con	centration. D=Depletion	on. RM=Red	uced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	1atrix
Hydric Soil 1	Indicators:						Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Histosol (	(A1)		Dark Surface (	S7)			2 cm Muck (A10)	•
Histic Epi	pedon (A2)		Polyvalue Belov	w Surface	(S8) (MLRA	147,148)		
Black Hist	tic (A3)		Thin Dark Surfa	ace (S9) (N	MLRA 147, 1	148)	Coast Prairie Redo (MLRA 147,148)	OX (AIb)
	n Sulfide (A4)		Loamy Gleyed	Matrix (F2)	)		Piedmont Floodpl	ain Soils (F19)
Stratified	Layers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147)	()
2 cm Muc	k (A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	c Surface (TF12)
Depleted	Below Dark Surface (A	A11)	Depleted Dark		7)		Other (Explain in	Remarks)
☐ Thick Dar	k Surface (A12)		Redox Depress	. ,				
Sandy Mu MLRA 147	uck Mineral (S1) (LRR 7, 148)	N,	Iron-Manganes MLRA 136)	e Masses (	(F12) (LRR	N,		
Sandy Gle	eyed Matrix (S4)		Umbric Surface	e (F13) (M	LRA 136, 12	22)	3	
☐ Sandy Re	edox (S5)		☐ Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	Indicators of wetland hyd	hydrophytic vegetation and Irology must be present,
Stripped I	Matrix (S6)		Red Parent Ma	terial (F21	) (MLRA 12	7, 147)		sturbed or problematic.
Restrictive I	ayer (if observed):							
Type:	ayer (ii observea).							
Depth (inc	thes):						<b>Hydric Soil Present?</b>	Yes O No 💿
Remarks:								
remarks.								

### Wetland 40ab

Site: AEP	Carrollton-	Gable Rater(s): JT	T, AEH	Date:	2/12/2019
		• , ,	Field Id:		
	1 1	Metric 1. Wetland Area (size)	). w-aeh-021219-02ab		
max 6 pts	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  <0.1 acres (0.04 ha) (0 pts)	0.09 acres		
	13 14	Metric 2. Upland buffers and	l surrounding land use.		
max 14 pts.	subtotal	X   WIDE. Buffers average 50m (164ft) or more a   MEDIUM. Buffers average 25m to <50m (82   NARROW. Buffers average 10m to <25m (32   VERY NARROW. Buffers average <10m (<3: 2b. Intensity of surrounding land use. Sele   X   VERY LOW. 2nd growth or older forest, prairi X   LOW. Old field (>10 years), shrubland, young	to <164ft) around wetland perimeter (4) 2ft to <82ft) around wetland perimeter (1) 2ft) around wetland perimeter (0) ect one or double check and average. ie, savannah, wildlife area, etc. (7) s econd growth forest. (5) asture, park, conservation tillage, new fallow field. (3)		
1	4.5 28.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)  Other groundwater (3)  X Precipitation (1)  Seasonal/Intermittent surface water (3)  Perennial surface water (lake or stream) (5)  3c. Maximum water depth. Select one.  >0.7 (27.6in) (3)  0.4 to 0.7m (15.7 to 27.6in) (2)  X <0.4m (<15.7in) (1)	100 year floodplain (1) Between stream/lake and other hum Part of wetland/upland (e.g. forest), X Part of riparian or upland corridor (1) 3d. Duration inundation/saturatio Semi- to permanently inundated/satu Regularly inundated/saturated (3) X Seasonally inundated (2) X Seasonally saturated in upper 30cm gime. Score one or double check and average. Check all disturbances observed ditch lile X filling	and use (1) complex (1) ) n. Score one or dbl check urated (4)  (12in) (1)  t source (nonstormwater) J/grading bed/RR track	<u>.</u>
		1	stormwater input Othe	er:	
	11 39.5	Metric 4. Habitat Alteration a	and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or de None or none apparent (4)  X Recovered (3)  Recent or no recovery (1)  4b. Habitat development. Select only one a Excellent (7)  Very good (6)  Good (5)  Moderately good (4)  Fair (3)  X Poor to fair (2)  Poor (1)  4c. Habitat alteration. Score one or double None or none apparent (9)  X Recovered (6)  Recovered (6)  Recovering (3)  Recent or no recovery (1)	and assign score.  c check and average.  Check all disturbances observed  mowing grazing herb		al
	39.5	1		ent enrichment	

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

wetland 40a | test\_Field 3/8/2019

### Wetland 40ab

Site: AEP Carrollton-Gable Rater(s): JTT	, AEH		Date:	2/12/2019
		Field Id:		
39.5		w-aeh-021219-02ab		
subtotal this page				
0 39.5 Metric 5. Special Wetlands.				
max 10 pts. subtotal Check all that apply and score as i	ndicated.			
Bog (10)				
Fen (10) Old growth forest (10)				
Mature forested wetland (5)				
Lake Erie coastal/tributary wetland-unrestricted Lake Erie coastal/tributary wetland-restricted h				
Lake Plain Sand Prairies (Oak Openings) (10)				
Relict Wet Praires (10)				
Known occurrence state/federal threatened or Significant migratory songbird/water fowl habit		ies (10)		
Category 1 Wetland. See Question 5 Qualitativ				
6 45.5 Metric 6. Plant communities,	interspersi	on, microtopography.		
max 20pts. subtotal 6a. Wetland Vegetation Communiti	ies.	Vegetation Community Cove	er Scale	
Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac		
Aquatic bed 2 Emergent		Present and either comprises small par vegetation and is of moderate quality, or		
Shrub		significant part but is of low quality	n comprises a	
1 Forest		Present and either comprises significar		
Mudflats Open water		vegetation and is of moderate quality or part and is of high quality	r comprises a small	
Other	3	Present and comprises significant part,	or more, of wetland's 3	
6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality		
High (5)		Narrative Description of Vegetation		
Moderately high(4) Moderate (3)		Low spp diversity and/or predominance disturbance tolerant native species	of nonnative or low	
Moderately low (2)		Native spp are dominant component of	the vegetation, mod	
x Low (1)		although nonnative and/or disturbance	tolerant native spp	
None (0)  6c. Coverage of invasive plants. Refer		can also be present, and species diver- moderately high, but generallyw/o prese		
Table 1 ORAM long form for list. Add		threatened or endangered spp to	ence of fare	
or deduct points for coverage		A predominance of native species, with		
Extensive >75% cover (-5)  Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp a absent, and high spp diversity and ofte		
x Sparse 5-25% cover (-1)		the presence of rare, threatened, or en		
Nearly absent <5% cover (0)	•			
Absent (1)  6d. Microtopography.		Mudflat and Open Water Class Quali Absent <0.1ha (0.247 acres)	ty	
Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)		
Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	5)	
1 Coarse woody debris >15cm (6in) 1 Standing dead >25cm (10in) dbh	3	High 4ha (9.88 acres) or more		
1 Amphibian breeding pools		Microtopography Cover Scale		
<del></del>		Absent		
		Present very small amounts or if more of marginal quality	СОПІПОП	
		Present in moderate amounts, but not		
Category 2	_	quality or in small amounts of highest q		
45.5 GRAND TOTAL(max 100 pts)	3	Present in moderate or greater amount	S	
		and of highest quality		

wetland 40a | test\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 40a

Date:

February 12, 2019

**Description:** 

PEM

Category 2

Facing North



### Wetland 40a

Date:

February 12, 2019

**Description:** 

PEM

Category 2

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 40a

Date:

February 12, 2019

**Description:** 

PEM

Category 2

Facing South



### Wetland 40a

Date:

February 12, 2019

**Description:** 

PEM

Category 2

Facing West





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 40a

Date:

February 12, 2019

**Description:** 

PEM

Category 2

Soil Pit



### Wetland 40b

Date:

February 12, 2019

**Description:** 

PFO

Category 2

Facing North





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 40b

Date:

February 12, 2019

**Description:** 

PFO

Category 2

Facing East



### Wetland 40b

Date:

February 12, 2019

**Description:** 

PFO

Category 2

Facing South





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 40b

Date:

February 12, 2019

**Description:** 

PFO

Category 2

Facing West



#### Wetland 40b

Date:

February 12, 2019

**Description:** 

PFO

Category 2

Soil Pit



### Wetland 41

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

Project/Site: Carrollton-Gable 13	38 kV Transmission Line	City/County: Carroll County	Sampling Date: 12-Feb-19			
Applicant/Owner: AEP		State: OH	Sampling Point: w-aeh-021219-01			
Investigator(s): JTT, AEH		Section, Township, Range: S	33 T 12N R 4W			
Landform (hillslope, terrace, etc.	.): Hillside	Local relief (concave, convex, n	one): concave Slope: 0.0% / 0.0 °			
Subregion (LRR or MLRA): LR	IR N Li	— at.: 40.504046	g.: -80.968657 <b>Datum</b> :			
Soil Map Unit Name: Wmd		10.30 10 10	NWI classification: N/A			
Are climatic/hydrologic condition	ns on the site typical for this time (	of year? Yes   No   (If no,	explain in Remarks.)			
Are Vegetation, Soil	, or Hydrology 🗌 signific	antly disturbed? Are "Normal	Circumstances" present? Yes ● No ○			
Are Vegetation, Soil	, or Hydrology 🔲 natura	lly problematic? (If needed, e	explain any answers in Remarks.)			
Summary of Findings -	Attach site map showin	g sampling point location	s, transects, important features, etc.			
Hydrophytic Vegetation Present	t? Yes • No O					
Hydric Soil Present?	Yes   No	Is the Sampled Area	Yes ● No ○			
Wetland Hydrology Present?	Yes   No	within a Wetland?				
Remarks:						
PEM on hillside under the trans	smission line and withiin its ROW					
Hydrology						
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)			
Primary Indicators (minimum o	of one required; check all that app	y)	Surface Soil Cracks (B6)			
Surface Water (A1)	True Aquatic F	• ,	Sparsely Vegetated Concave Surface (B8)			
✓ High Water Table (A2)	Hydrogen Sulf	` '	Drainage Patterns (B10)			
Saturation (A3)		spheres along Living Roots (C3)	Moss Trim Lines (B16)			
Water Marks (B1)		educed Iron (C4)	Dry Season Water Table (C2)			
Sediment Deposits (B2)	☐ Recent Iron R	eduction in Tilled Soils (C6)	Crayfish Burrows (C8)			
Drift deposits (B3)	Thin Muck Sur	` '	Saturation Visible on Aerial Imagery (C9)			
Algal Mat or Crust (B4)	Other (Explain	in Remarks)	Stunted or Stressed Plants (D1)			
Iron Deposits (B5)	(87)		Geomorphic Position (D2)			
Inundation Visible on Aerial Im	iagery (B/)		Shallow Aquitard (D3)			
Water-Stained Leaves (B9)			Microtopographic Relief (D4)			
Aquatic Fauna (B13)			FAC-neutral Test (D5)			
Field Observations: Surface Water Present? Yes	s • No O Depth (inche	es): 1				
	7. (	Wetland Hydr	ology Present? Yes   No			
(includes capillary fringe) Yes	s No Depth (inche	es):0				
Describe Recorded Data (stream	n gauge, monitoring well, aerial pl	notos, previous inspections), if availa	able:			
Remarks:						
Hydrology from hillside seep/dr	rainage and precipitation					
Trydrology from filliside seep/di	amage and precipitation					

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

		Dominant		Sampling Point: w-aeh-021219-01
Tree Stratum (Plot size:)	Absolute % Cover	-Species? Rel.Strat. Cover	Indicator Status	
 1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:
2	0	0.0%		
3		0.0%		Total Number of Dominant Species Across All Strata: 1 (B)
4		0.0%		Species Across Air Strata.
5		0.0%		Percent of dominant Species
6.		0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7		0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
	. 0 =	= Total Cove	r	OBL species 85 x 1 = 85
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species 15 x 2 = 30
1				FAC species x 3 =
2				FACU species $0 \times 4 = 0$
3				
4				,
5				Column Totals: 100 (A) 115 (B)
6				Prevalence Index = $B/A = \underline{1.150}$
7				Hydrophytic Vegetation Indicators:
8				✓ Rapid Test for Hydrophytic Vegetation
9				✓ Dominance Test is > 50%
0	0	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	=	= Total Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%		data in Remarks or on a separate sheet)
2		0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4		0.0%		be present, unless disturbed or problematic.
5		0.0%		Definition of Vegetation Strata:
6		0.0%		Four Vegetation Strata:
7	0	0.0%		Tree stratum - Consists of woody plants, excluding vines, 3 in.
Herb Stratum (Plot size:)	0 =	= Total Cove	r	(7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub stratum – Consists of woody plants, excluding
1. Carex vulpinoidea	85	<b>✓</b> 85.0%	OBL	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Poa palustris	10	10.0%	FACW	Herb stratum - Consists of all herbaceous (non-woody) plants,
3. Eupatorium perfoliatum	5	5.0%	FACW	regardless of size, and all other plants less than 3.28 ft tall.
4		0.0%		Woody vines – Consists of all woody vines greater than 3.28 ft   in height.
5	0	0.0%		
6	0	0.0%		Five Vegetation Strata:
7	0	0.0%		Tree - Woody plants, excluding woody vines, approximately 20
8	0			ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9				diameter at breast height (DBH).  Sapling stratum – Consists of woody plants, excluding woody
0				vines, approximately 20 ft (6 m) or more in height and less
1		0.0%		than 3 in. (7.6 cm) DBH.
2	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	100 =	= Total Cove	r	Herb stratum – Consists of all herbaceous (non-woody) plants,
1	0	0.0%		including herbaceous vines, regardless of size, and woody
2		0.0%		species, except woody vines, less than approximately 3 ft (1 m) in height.
3.		0.0%		Woody vines – Consists of all woody vines, regardless of
4		0.0%		height.
<del></del>		0.0%		
		0.0%		Hydrophytic Vegetation
ki				vegetation
6		= Total Cove	r	Present? Yes No

Soil Sampling Point: w-aeh-021219-01

Profile Descr		the depth i				nfirm the	absence of indicators.)			
Depth	Matrix	0′		Redox Features						
(inches) 0-16	<b>Color (moist)</b> 10YR 5/2	<b></b> 85	Color (moist) 10YR 6/8	<b>%</b> 15	Tvpe 1	Loc²	Texture Silty Clay Loam	Rem	arks	
	- 101K 3/2		10110 0/0				Sity Clay Loan			
							,			
-	-									
1- 0.0						. 21				
		on. RM=Redu	ced Matrix, CS=Cove	red or Coat	ted Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N			
Hydric Soil 1							Indicators for Proble	ematic Hydric	: Soils <sup>3</sup> :	
Histosol (	•		Dark Surface (	. ,	(CO) (MI DA	147 140)	2 cm Muck (A10)	(MLRA 147)		
	pedon (A2)		Polyvalue Belo Thin Dark Surf				Coast Prairie Redo	ox (A16)		
Black Hist	iic (A3) i Sulfide (A4)		Loamy Gleyed			170)	(MLRA 147,148)			
	Layers (A5)		✓ Depleted Matr		.)		Piedmont Floodpl	ain Soils (F19)		
	k (A10) (LRR N)		Redox Dark Su	. ,			(MLRA 136, 147)	. Comfort (TE1	2)	
	Below Dark Surface (A	111)	Depleted Dark	. ,			Very Shallow Dark Surface (TF12)			
	k Surface (A12)	111)	Redox Depres	-	,		Uther (Explain in Remarks)			
	ıck Mineral (S1) (LRR I	V	Iron-Mangane		(F12) (LRR	N,				
MLRA 147	7, 148)	٠,	MLRA 136)							
Sandy Gle	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)	<sup>3</sup> Indicators of hydrophytic vegetation and		and the second	
Sandy Re	dox (S5)		Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	Indicators of wetland hyd	nydropnytic ve Irology must b	getation and e present,	
Stripped I	Matrix (S6)		Red Parent Ma	aterial (F21	.) (MLRA 12	7, 147)		sturbed or prob		
Restrictive L	ayer (if observed):									
Type:	, (									
Depth (inc	:hes):						Hydric Soil Present?	Yes 💿	No O	
Remarks:										
Remarks										

Upland 41

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

Project/Site: Carrolton Gable		City/County:	Carroll County		Sampli	ing Date: 12-Feb-19
Applicant/Owner: AEP			State: OH	Н	Sampling Poi	nt: upl-aeh-20190212-01
Investigator(s): AEH, JTT		Section, Town	ship, Range: S	33	<b>T</b> 12N	R 4W
Landform (hillslope, terrace, etc.):	Hillside	Local relief (con	icave, convex, r	none):	rolling	Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR	N	 <b>Lat.:</b> 40.5041570536	i lor	na · -	80.9687258245	<b>Datum:</b> NAD 83
Soil Map Unit Name: Westmorela				_	NWI classification:	
Are climatic/hydrologic conditions					in in Remarks.)	
Are Vegetation , Soil	, or Hydrology	significantly disturbed?			mstances" present?	Yes O No
Are Vegetation , Soil .	, or Hydrology	naturally problematic?			n any answers in Re	
Summary of Findings - A	ttach site ma	ap showing sampling po	int location	ns, t	ransects, imp	ortant features, etc.
Hydrophytic Vegetation Present?	Yes O No	•				
Hydric Soil Present?	Yes O No	● Is the S	Is the Sampled Area		○ No •	
Wetland Hydrology Present?	Yes O No	• within	a Wetland?	163	○ 140 <b>◎</b>	
Remarks:						
Hydrology						
Wetland Hydrology Indicators:				Seco	ndary Indicators (mini	mum of two required)
Primary Indicators (minimum of	one required; checl	k all that apply)		S	urface Soil Cracks (B6	5)
Surface Water (A1)		True Aquatic Plants (B14)		s	parsely Vegetated Cor	ncave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Odor (C1)			rainage Patterns (B10	))
Saturation (A3)		Oxidized Rhizospheres along Living R	loots (C3)		loss Trim Lines (B16)	
Water Marks (B1)		Presence of Reduced Iron (C4)			ry Season Water Tabl	e (C2)
Sediment Deposits (B2)		Recent Iron Reduction in Tilled Soils	(C6)		rayfish Burrows (C8)	
Drift deposits (B3)		Thin Muck Surface (C7)			aturation Visible on A	• , , ,
Algal Mat or Crust (B4)		Other (Explain in Remarks)			tunted or Stressed Pla	,
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imag	ien/ (R7)				ieomorphic Position (D	)2)
Water-Stained Leaves (B9)	ery (b/)				hallow Aquitard (D3) licrotopographic Relief	f (D4)
Aquatic Fauna (B13)					AC-neutral Test (D5)	(D4)
Field Observations:					AC ficultal fest (D3)	
Surface Water Present? Yes	○ No ●	Depth (inches):				
Water Table Present? Yes	● No ○	Depth (inches): 7				
Saturation Present?		Depth (inches): 0	Wetland Hydr	rology	Present? Yes	○ No •
(includes capillary fringe)  Describe Recorded Data (stream of			ections), if avail	lable:		
Remarks:						

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

		—Species? ———	Sampling Point: <u>upi-aen-20190212-01</u>
	Absolute	Rel.Strat. Indicato	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover Status	Number of Dominant Species
1	0	0.0%	That are OBL, FACW, or FAC:1(A)
2		0.0%	
3		0.0%	Total Number of Dominant Species Across All Strata: 3 (B)
4		0.0%	Species Across Air Strata.
5.		0.0%	Percent of dominant Species
		0.0%	That Are OBL, FACW, or FAC: 33.3% (A/B)
6		0.0%	Prevalence Index worksheet:
7		0.0%	Total % Cover of: Multiply by:
8			
Sapling-Sapling/Shrub Stratum (Plot size:	)	= Total Cover	OBL species <u>5</u> x 1 = <u>5</u>
1	0	0.0%	FACW species $25 \times 2 = 50$
2.		0.0%	FAC species $0 \times 3 = 0$
		0.0%	FACU species $\frac{15}{}$ x 4 = $\frac{60}{}$
3		0.0%	UPL species $\frac{40}{}$ x 5 = $\frac{200}{}$
4			Column Totals: <u>85</u> (A) <u>315</u> (B)
5		0.0%	
6		0.0%	Prevalence Index = B/A = 3.706
7		0.0%	Hydrophytic Vegetation Indicators:
8	0		Rapid Test for Hydrophytic Vegetation
9	0		Dominance Test is > 50%
10	0	0.0%	Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= Total Cover	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	0.0%	data in Remarks or on a separate sheet)
2		0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
		0.0%	1 Tudisatore of hydric cell and wetland hydrology must
3			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		0.0%	
5			Definition of Vegetation Strata:
6	0		Four Vegetation Strata:
7	0	0.0%	Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	0	= Total Cover	regardless of height.
1. Bromus inermis	40	<b>✓</b> 47.1% UPL	Sapling/shrub stratum – Consists of woody plants, excluding
2 Onoclea sensibilis	15	✓ 17.6% FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody)
3. Solidago canadensis	15	✓ 17.6% FACU	plants, regardless of size, and all other plants less than 3.28
4. Carex vulpinoidea	- <del>- 13</del> - 5	5.9% OBL	ff tall. Woody vines – Consists of all woody vines greater than 3.28
T. Juneus officers	_ <u></u>	5.9% FACW	ft in height.
5. Juncus effusus			-
6. Poa palustris		5.9% FACW	Five Vegetation Strata:
7			Tree - Woody plants, excluding woody vines, approximately
8			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9	0		Sapling stratum – Consists of woody plants, excluding
0	0	0.0%	woody vines, approximately 20 ft (6 m) or more in height and
11	0	0.0%	less than 3 in. (7.6 cm) DBH.
2	0	0.0%	Shrub stratum – Consists of woody plants, excluding woody
Woody Vine Stratum (Plot size:)	85	= Total Cover	vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody)
	0	0.0%	plants, including herbaceous vines, regardless of size, and
1			woody species, except woody vines, less than approximately
2	0_	0.0%	3 ft (1 m) in height.
3		0.0%	Woody vines – Consists of all woody vines, regardless of height.
4	0		
5	0		Hydrophytic
6	0	0.0%	Vegetation No. No. No.
	0	= Total Cover	Present? Yes No   No
Remarks: (Include photo numbers here or on a separate sh		= Total Cover	Tresente
	-		

Soil Sampling Point: upl-aeh-20190212-01

Profile Descr		the depth r				nfirm the	absence of indicators.)			
Depth	Matrix			dox Featu						
(inches)	Color (moist)		Color (moist)	%_	Tvpe 1	Loc2	Texture	Remarks		
0-18	10YR 4/2	100					Silty Clay			
	-		· <u></u>							
<sup>1</sup> Type: C=Con	centration. D=Depletion	on. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=N	1atrix		
Hydric Soil 1	Indicators:		_				Indicators for Proble	ematic Hydric Soils <sup>3</sup> :		
Histosol (	A1)		Dark Surface (				2 cm Muck (A10)	(MLRA 147)		
	pedon (A2)		Polyvalue Belo				Coast Prairie Redo			
Black Hist			Thin Dark Surf			.48)	(MLRA 147,148)	JX (A10)		
	Sulfide (A4)		Loamy Gleyed	-	)		Piedmont Floodpl	ain Soils (F19)		
	Layers (A5)		Depleted Matri				(MLRA 136, 147)			
	k (A10) (LRR N)		Redox Dark Su	. ,			Very Shallow Dar	k Surface (TF12)		
	Below Dark Surface (A	A11)	Depleted Dark		7)		Other (Explain in Remarks)			
	k Surface (A12)		Redox Depress		(E12) (LDD	.,				
Sandy Mu MLRA 147	ıck Mineral (S1) (LRR 1 7, 148)	Ν,	Iron-Manganes MLRA 136)							
Sandy Gle	eyed Matrix (S4)		Umbric Surface				<sup>3</sup> Indicators of hydrophytic vegetation and			
Sandy Re	dox (S5)		☐ Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	wetland hyd	Irology must be present,		
Stripped I	Matrix (S6)		Red Parent Ma	iterial (F21	) (MLRA 12	7, 147)	unless dis	sturbed or problematic.		
Restrictive L	ayer (if observed):									
Туре:										
Depth (inc	:hes):						Hydric Soil Present?	Yes O No 💿		
Remarks:										

#### Wetland 41

n-Gable Rater(s): JTT, AEH		Date: 2/12/2019
	Field Id:	
Metric 1. Wetland Area (size).	w-aeh-021219-01	
Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  x <0.1 acres (0.04ha) (0 pts)	0.03 acres	
Metric 2. Upland buffers and surrou	ınding land use.	
WIDE. Buffers average 50m (164ft) or more around wetla MEDIUM. Buffers average 25m to <50m (82 to <164ft) at NARROW. Buffers average 10m to <25m (32ft to <82ft) at VERY NARROW. Buffers average <10m (<32ft) around very Narrounding land use. Select one or one of the very Narrounding land use.	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0) double check and average. h, wildlife area, etc. (7) woth forest. (5) , conservation tillage, new fallow field. (3)	
0 Metric 3. Hydrology.		
None or none apparent (12) Recovered (7) Recovering (3) x Recent or no recovery (1)	Check all disturbances observed ditch point X tile X filling/ dike road lever dredgestormwater input Other	an use (1) complex (1)  Score one or dbl check. rated (4)  (12in) (1)  source (nonstormwater) grading bed/RR track ing
None or none apparent (4)  x Recovered (3) Recovering (2) Recent or no recovery (1)  4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1)	score.  d average.  Check all disturbances observed  x mowing x shrub  x grazing herba  x clearcutting x sediri  selective cutting dredg  x woody debris removal farmlir	ing
	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <4ha) (3 pts)  0.1 to <0.3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	Metric 1. Wetland Area (size).  Select one size class and assign score.  >50 acres (>20 2ha) (6 pts)    25 to <50 acres (>10 to (>20 2ha) (5 pts)   3 to <10 acres (12 to <4ha) (3 pts)   3 to <10 acres (12 to <4ha) (3 pts)   3 to <10 acres (12 to <4ha) (3 pts)   3 to <10 acres (12 to <4ha) (3 pts)   3 to <10 acres (0.04 to (0 pts)   0 to <2,5 acres (0.04 to (0 pts)   0 to <3 acres (0.04 to (0 pts)   0 to <0,0 acres (0.04 to (0 pts)   0 to <0,1 acres (0 to (0 pts)   0 to (0 to (0 pts)   0 to (0 to (0 pts

wetland 41 | test\_Field 3/8/2019

Site: AEF	Carrollton-	Gable	Rater(s): JTT, A	ÆΗ		Date:	2/12/2019
			•		Field Id:		
	23				w-aeh-021219-01		
	subtotal this p	<u> </u>					
		1	sial Matlanda				
	0 23	wetric 5. Spec	cial Wetlands.				
max 10 pts.	subtotal		oply and score as ind	icated.			
		Bog (10)					
		Fen (10) Old growth forest (10)					
		Mature forested wetla					
			itary wetland-unrestricted hy				
			itary wetland-restricted hydro	ology (5)			
		Relict Wet Praires (10	ies (Oak Openings) (10)				
			r) ate/federal threatened or end	langered spe	cies (10)		
		Significant migratory s	ongbird/water fowl habitat or	r usage (10)	( - /		
		_	See Question 5 Qualitative R				
	1 24	Metric 6. Plan	t communities, in	terspers	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Co	ver Scale	
		Score all present usin	g 0 to 3 scale.	0	Absent or comprises <0.1ha (0.247)		
		Aquatic bed		1	Present and either comprises small		
		1 Emergent Shrub			vegetation and is of moderate qualit significant part but is of low quality	y, or comprises a	
		Forest		2	Present and either comprises significant	cant part of wetland's 2	
		Mudflats			vegetation and is of moderate qualit		
		Open water			part and is of high quality		
		Other 6b. horizontal (plan	vious) Interconcreton	3	Present and comprises significant p vegetation and is of high quality	art, or more, of wetland's 3	
		Select only one.	view) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation		
		Moderately high(4)			Low spp diversity and/or predomina	nce of nonnative or low	
		Moderate (3) Moderately low (2)			disturbance tolerant native species  Native spp are dominant componen	t of the vegetation, mod	
		Low (1)			although nonnative and/or disturban		
		x None (0)			can also be present, and species di		
		6c. Coverage of inva			moderately high, but generallyw/o pi	resence of rare	
		Table 1 ORAM long for or deduct points for co			threatened or endangered spp to A predominance of native species, v	with nonnative enn high	
		Extensive >75% cove			and/or disturbance tolerant native s		
		Moderate 25-75% cov			absent, and high spp diversity and o		
		Sparse 5-25% cover (			the presence of rare, threatened, or	endangered spp	
		x Nearly absent <5% co Absent (1)	over (U)		Mudflat and Open Water Class Qu	ıalitv	
	ļ	6d. Microtopography	<i>l</i> .	0	Absent <0.1ha (0.247 acres)	adity	
		Score all present usin	g 0 to 3 scale.	1	Low 0.1 to <1ha (0.247 to 2.47 acre		
		Vegetated hummucks			Moderate 1 to <4ha (2.47 to 9.88 ac	res)	
		Coarse woody debris Standing dead >25cm		3	High 4ha (9.88 acres) or more		
		Amphibian breeding p			Microtopography Cover Scale		
	'				Absent		
				1	Present very small amounts or if mo	re common	
				2	of marginal quality Present in moderate amounts, but n	ot of highest	
Category 1				2	quality or in small amounts of highes		
	24 GRAND	TOTAL(max 100 pts	)	3	Present in moderate or greater amo	unts	
			,		_		
					and of highest quality		

wetland 41 | test\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

60582598

AEP

Gable-Carrollton 138 kV Transmission Line Project

#### Wetland 41

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing North



#### Wetland 41

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 41

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing South



#### Wetland 41

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 41

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Soil Pit



### Wetland 42

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

Carroliton-Gable 138 KV	7 Transmission Line City/C	Carroll County	Sampling Date: 11-Feb-19		
Applicant/Owner: AEP		State:	Sampling Point: w-aeh-021119-03		
Investigator(s): JTT, AEH	Section	on, Township, Range: S	26 <b>T</b> 12N <b>R</b> 4W		
Landform (hillslope, terrace, etc.):	Floodplain Local re	elief (concave, convex, nor	ne): concave Slope: 0.0% / 0.0 °		
Subregion (LRR or MLRA): LRR N	Lat.: 40.497	'963 <b>Long.</b>	: -80.959620 <b>Datum</b> :		
Soil Map Unit Name: BkE			NWI classification: R4SBC		
·	on the site typical for this time of year?	'es No (If no, e	xplain in Remarks.)		
		` '			
	, or Hydrology  significantly distu		ircumstances" present? Yes S NO		
Are Vegetation . , Soil .	, or Hydrology	atic? (If needed, ex	plain any answers in Remarks.)		
<b>Summary of Findings - At</b>	ttach site map showing sampl	ing point locations	s, transects, important features, etc.		
Hydrophytic Vegetation Present?	Yes  No		· · · · ·		
Hydric Soil Present?	Yes  No	Is the Sampled Area			
-	Yes  No	within a Wetland?	es   No		
Wetland Hydrology Present?	res and a				
Remarks:					
PEM wetland in floodpain of stream	m				
Hydrology					
Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)		
Primary Indicators (minimum of o	ne required; check all that apply)		Surface Soil Cracks (B6)		
✓ Surface Water (A1)	☐ True Aquatic Plants (B14)		Sparsely Vegetated Concave Surface (B8)		
✓ High Water Table (A2)	☐ Hydrogen Sulfide Odor (C1	)	Drainage Patterns (B10)		
Saturation (A3)	Oxidized Rhizospheres alon	g Living Roots (C3)	Moss Trim Lines (B16)		
Water Marks (B1)	Presence of Reduced Iron (	(C4)	Dry Season Water Table (C2)		
Sediment Deposits (B2)	Recent Iron Reduction in T	illed Soils (C6)	Crayfish Burrows (C8)		
Drift deposits (B3)	☐ Thin Muck Surface (C7)		Saturation Visible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Other (Explain in Remarks)		Stunted or Stressed Plants (D1)		
Iron Deposits (B5)	(07)	<u>\</u>	Geomorphic Position (D2)		
☐ Inundation Visible on Aerial Image ✓ Water-Stained Leaves (B9)	ry (B/)	L	Shallow Aquitard (D3)		
Aguatic Fauna (B13)		<u> </u>	_ ` ` ` ` ` ` `		
Field Observations:			PAC-Heutral Test (D3)		
Surface Water Present? Yes	No Depth (inches): 1				
Water Table Present? Yes					
	, , , ,	Wetland Hydrol	ogy Present? Yes   No		
(includes capillary fringe) Yes					
Describe Recorded Data (stream ga	auge, monitoring well, aerial photos, previ	ous inspections), if availab	ole:		
Remarks:					
hydrology from precipitation and s	tream				

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

	Absolute		ecies? -	Indicator	Deminance Test werksheet:
Tree Stratum (Plot size:)	% Cover		on our	Status	Dominance rest worksheet.
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 2 (A)
2.	0		0.0%		
3.			0.0%		Total Number of Dominant Species Across All Strata: 3 (B)
4.			0.0%		Species Across Air Strata.
5.			0.0%		Percent of dominant Species
6.			0.0%		That Are OBL, FACW, or FAC: 66.7% (A/B)
7.			0.0%		Prevalence Index worksheet:
8.			0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	Λ.	= To	otal Cover		OBL species <u>17</u> x 1 = <u>17</u>
1	_		0.0%		FACW species $\underline{15}$ x 2 = $\underline{30}$
2.			0.0%		FAC species $0 \times 3 = 0$
3	_		0.0%		FACU species $\frac{15}{}$ x 4 = $\frac{60}{}$
4.	_		0.0%		UPL species $0 \times 5 = 0$
5.			0.0%		Column Totals: <u>47</u> (A) <u>107</u> (B)
6.	•		0.0%		Prevalence Index = B/A = 2.277
7			0.0%		
8.	•		0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9.			0.0%		✓ Dominance Test is > 50%
0			0.0%		
	_	= To	otal Cover		
Shrub Stratum         (Plot size:)           1			0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
2			0.0%		$\square$ Problematic Hydrophytic Vegetation $^1$ (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5.			0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7.	_	$\Box$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size:)		— = Тс	otal Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	15	<b>V</b>	31.9%	OBL	Sapling/shrub stratum – Consists of woody plants, excluding
Typha angustifolia     Phalaria angustifolia	10		21.3%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Phalaris arundinacea	15		31.9%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
Poa compressa     Onoclea sensibilis			10.6%	FACW	ft tall. Woody vines – Consists of all woody vines greater than 3.28
Onoclea sensibilis     Symplocarpus foetidus		$\Box$	4.3%	OBL	ft in height.
6.		$\Box$	0.0%	OBL	
			0.0%		Five Vegetation Strata:
7			0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9			0.0%		diameter at breast height (DBH).
			0.0%		Sapling stratum – Consists of woody plants, excluding
1			0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
2.			0.0%		Shrub stratum – Consists of woody plants, excluding woody
		 = To	otal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:) 1	0		0.0%		Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
2			0.0%		woody species, except woody vines, less than approximately 3 ft (1 m) in height.
3			0.0%		Woody vines – Consists of all woody vines, regardless of
4.	_		0.0%		height.
5			0.0%		
			0.0%		Hydrophytic Vegetation
	<u> </u>	ш,	0.070		
6	0	= T	otal Cove	r 1	Present? Yes VO

Soil Sampling Point: w-aeh-021119-03

Profile Descript	tion: (Describe to	the depth n	eeded to document	t the indic	ator or co	nfirm the	absence of indicators.)	
Depth —	Matrix		Re	dox Featu	res			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks
0-16	10YR 4/1	70	10YR 4/6	30	С	M	Silty Clay	
				-				
1 Type: C=Concer	ntration D=Depletio	n RM=Reduc	ed Matrix CS=Cover	ed or Coate	ed Sand Gra	ains 21 oca	ation: PL=Pore Lining. M=M	atrix
**	· · · · · · · · · · · · · · · · · · ·	II. KIII–Keuuc	ed Matrix, C3=Cover	eu oi coati	Sand Gre	all 15 -LOC		
Hydric Soil Ind				C=)			Indicators for Proble	matic Hydric Soils <sup>3</sup> :
Histosol (A1	,		Dark Surface (	,	(CO) (CC) =	449 445	2 cm Muck (A10) (	MLRA 147)
Histic Epiped			Polyvalue Belov				Coast Prairie Redo	
Black Histic	. ,		Thin Dark Surfa			.48)	(MLRA 147,148)	. ( )
Hydrogen Sı			Loamy Gleyed				Piedmont Floodpla	in Soils (F19)
Stratified La	yers (A5)		✓ Depleted Matri	x (F3)			(MLRA 136, 147)	,
2 cm Muck (	(A10) (LRR N)		Redox Dark Su	rface (F6)			Very Shallow Dark	Surface (TF12)
Depleted Be	elow Dark Surface (A	11)	Depleted Dark	Surface (F	7)		Other (Explain in F	Remarks)
☐ Thick Dark S	Surface (A12)		Redox Depress	ions (F8)				,
	: Mineral (S1) (LRR N	Ι,	Iron-Manganes MLRA 136)	se Masses (	F12) (LRR	N,		
	ed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	(2)		
Sandy Redox			Piedmont Floor				<sup>3</sup> Indicators of h	ydrophytic vegetation and
								ology must be present, curbed or problematic.
Stripped Ma	LIIX (50)		Red Parent Ma	teriai (F21)	(MLRA 12.	/, 14/)	uniess disi	urbed or problematic.
Restrictive Lay	er (if observed):							
Туре:								
Depth (inche	s):						Hydric Soil Present?	Yes   No
Remarks:								
Remarks.								

# Upland 42

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

Project/Site: Carrollton Gable		City/County: Carroll County	Sampling Date: 11-Feb-19
Applicant/Owner: AEP		State: OH	Sampling Point: upl-aeh-20190211-03
Investigator(s): AEH, JTT		Section, Township, Range: S	26 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, etc.):	Floodplain	Local relief (concave, convex, n	one): none Slope:0.0% /0.0_ °
Subregion (LRR or MLRA): LRR N	Lat.:	40.49775463 <b>Lon</b>	g.: -80.95979244
Soil Map Unit Name: Berks channer	ry silt loam, 25 to 35 percent slop		NWI classification: N/A
Are climatic/hydrologic conditions or	n the site typical for this time of v	ear? Yes • No O (If no.	explain in Remarks.)
Are Vegetation, Soil			Circumstances" present? Yes   No
Are Vegetation $\square$ , Soil $\square$	, or Hydrology $\Box$ naturally p	problematic? (If needed, e	explain any answers in Remarks.)
Summary of Findings - At		sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No O		
Hydric Soil Present?	Yes No O	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No •	within a Wetland?	
Hydrology			
Wetland Hydrology Indicators: Primary Indicators (minimum of or	ne required; check all that annly)		Secondary Indicators (minimum of two required)
Surface Water (A1)	True Aquatic Plant	rs (B14)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)	Hydrogen Sulfide		Drainage Patterns (B10)
Saturation (A3)		eres along Living Roots (C3)	Moss Trim Lines (B16)
☐ Water Marks (B1)	Presence of Reduc	ced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduc	ction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface	e (C7)	Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)	Other (Explain in F	Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	m, (D7)		Geomorphic Position (D2)
☐ Inundation Visible on Aerial Imager☐ Water-Stained Leaves (B9)	y (b)		☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			The neutral rest (55)
Surface Water Present? Yes	No Depth (inches):		
Water Table Present? Yes	No Depth (inches):		
Saturation Present?  (includes capillary frings)  Yes	No Depth (inches):	Wetland Hydr	ology Present? Yes No 💿
(includes capillary fringe)  Describe Recorded Data (stream ga		os, previous inspections), if availa	able:
Domarke			
Remarks:			

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

<b>1-1</b>	Absolute	R	ecies? - el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		over	Status	Number of Dominant Species
1. Acer rubrum	15	<b>V</b>	42.9%	FAC	That are OBL, FACW, or FAC:4(A)
2. Quercus macrocarpa		<b>V</b>	42.9%	FAC	Total Number of Dominant
3. Populus deltoides	5		14.3%	FAC	Species Across All Strata:6(B)
4	0		0.0%		
5	0		0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)
6	0		0.0%		That Are obt., FACW, of FAC.
7	0	Ш	0.0%		Prevalence Index worksheet:
8	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	) :	= T	otal Cover	•	OBL species x 1 =
	4.5	<b>V</b>	75.0%	FACU	FACW species $10 \times 2 = 20$
		<b>V</b>	25.0%	FAC	FAC species $\underline{40}$ x 3 = $\underline{120}$
			0.0%	TAC	FACU species $\frac{25}{}$ x 4 = $\frac{100}{}$
3		$\Box$	0.0%		UPL species $0 \times 5 = 0$
4			0.0%		Column Totals:75 (A)240 (B)
5					COTAINIT TOCATS!
6			0.0%		Prevalence Index = B/A = 3.200
7	•		0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		Rapid Test for Hydrophytic Vegetation
9			0.0%		✓ Dominance Test is > 50%
0		Ш	0.0%		☐ Prevalence Index is $\leq$ 3.0 $^{1}$
Shrub Stratum (Plot size:)	:	= T	otal Cover	•	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7.	_		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size:)		= T	otal Cover		in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	10	<b>V</b>	50.0%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
Solidago canadensis		<b>V</b>	50.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Phalaris arundinacea	0		0.0%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3		Н	0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
4					ft in height.
5			0.0%		
6					Five Vegetation Strata:
7			0.0%		Tree - Woody plants, excluding woody vines, approximately
8			0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			0.0%		Sapling stratum – Consists of woody plants, excluding
0			0.0%		woody vines, approximately 20 ft (6 m) or more in height and
1			0.0%		less than 3 in. (7.6 cm) DBH.  Shrub stratum – Consists of woody plants, excluding woody
2	0	_	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	:	= 10	otal Cover		Herb stratum - Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3			0.0%		Woody vines – Consists of all woody vines, regardless of
4			0.0%		height.
5			0.0%		
			0.0%		Hydrophytic Vegetation
	0	'	0.0 /0		
6.		 = T	otal Cove		Present? Yes No

Soil Sampling Point: upl-aeh-20190211-03

Profile Descri	-	the depth r				nfirm the	absence of indicators.)		
Depth	Matrix			dox Featu				_	
(inches) 0-18	<b>Color (moist)</b> 10YR 4/1	<b>%</b>	Color (moist)	. <u>%</u> 5	Tvpe 1	Loc <sup>2</sup>	Texture Silty Clay	Rem	narks
<u></u>	10YR 4/1	95	10YR 6/8				Silty Clay		
1									
		on. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=M	atrix	
Hydric Soil I							Indicators for Proble	matic Hydri	ic Soils <sup>3</sup> :
Histosol (A			Dark Surface (	-			2 cm Muck (A10) (	MLRA 147)	
	pedon (A2)		Polyvalue Belov				Coast Prairie Redo	x (A16)	
Black Histi			Thin Dark Surfa			.48)	(MLRA 147,148)	( , , , , ,	
	Sulfide (A4)		Loamy Gleyed	-	)		Piedmont Floodpla	in Soils (F19	)
	Layers (A5)		✓ Depleted Matri				(MLRA 136, 147)		
_	(A10) (LRR N)	445	Redox Dark Su  Depleted Dark				Very Shallow Dark		12)
	Below Dark Surface (A	A11)	Redox Depress		/)		Other (Explain in F	temarks)	
	Surface (A12)	NI.	☐ Iron-Manganes		(F12) (I RR	N			
MLRA 147	ck Mineral (S1) (LRR I , 148)	ν,	MLRA 136)						
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (M	LRA 136, 12	.2)	3 - 1		
Sandy Red	dox (S5)		Piedmont Floor	dplain Soils	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of h wetland hydr	ydrophytic v ology must l	egetation and be present,
Stripped M	latrix (S6)		Red Parent Ma	terial (F21	) (MLRA 12	7, 147)	unless dist	turbed or pro	blematic.
Restrictive La	yer (if observed):								
Type:	iyei (ii obseiveu).								
Depth (inch	nes):						Hydric Soil Present?	Yes 💿	No O
Remarks:									
Remarks.									

#### Wetland 42

					Date:	2/11/2019
				Field Id:		
	1 1	Metric 1. W	etland Area (size).	w-aeh-021119-	03	
max 6 pts	subtotal	>50 acres (>20.2h 25 to <50 acres (1 10 to <25 acres (4 3 to <10 acres (1 0.3 to <3 acres (0	0.1 to <20.2ha) (5 pts) to <10.1ha) (4 pts) 2 to <4ha) (3 pts) .12 to <1.2ha) (2pts) (0.04 to <0.12ha) (1 pt)	0.17	acres	
	12 13	Metric 2. Up	oland buffers and s	urrounding land use.		
max 14 pts.	subtotal	x WIDE. Buffers ave MEDIUM. Buffers NARROW. Buffers VERY NARROW. 2b. Intensity of si VERY LOW. 2nd (st X LOW. Old field (st MODERATELY H	erage 50m (164ft) or more arous average 25m to <50m (82 to <50m (32ft to 825m to <25m (33ft to 825m to <32ft) Buffers average <10m (<32ft) urrounding land use. Select growth or older forest, prairie, stoppers, shrubland, young se	:164ft) around wetland perimeter (4) o <82ft) around wetland perimeter (1) around wetland perimeter (0) one or double check and average. savannah, wildlife area, etc. (7) cond growth forest. (5) re, park, conservation tillage, new fallow		
1:	2.5 25.5	Metric 3. Hy	/drology.			
max 30 pts.	subtotal	High pH groundwate  X Other groundwate  X Precipitation (1)  Seasonal/Intermitt  Perennial surface  3c. Maximum wat  > 0.7 (27.6in) (3)  0.4 to 0.7m (15.7')  X < 0.4m (<15.7in) (1	ent surface water (3) water (lake or stream) (5) ter depth. Select one. to 27.6in) (2) to to atural hydrologic regim arent (12)	3b. Connectivity. Scor.  100 year floodplain (1) Between stream/lake an Part of wetland/upland ( X Part of riparian or upland 3d. Duration inundatio Semi- to permanently in Regularly inundated/satt X Seasonally saturated (2 X Seasonally saturated is. Score one or double check and avon Check all disturbances ditch X tile dike Weir stormwater input	id other human use (1) e.g. forest), complex (1) d corridor (1) in/saturation. Score one or dbl urated (3) urated (3) ) upper 30cm (12in) (1) erage.	
	6.5 32	Metric 4. Ha	abitat Alteration and	d Development.		
max 20 pts.	subtotal	None or none app x Recovered (3) x Recovering (2) Recent or no reco 4b. Habitat devel Excellent (7) Very good (6) Good (5) Moderately good ( Fair (3) Poor to fair (2) x Poor (1)	very (1) opment. Select only one and 4)  tion. Score one or double charent (9)	assign score.	observed  X shrub/sapling removal herbaceous/aquatic bed is X sedimentation dredging X farming X nutrient enrichment	removal

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

wetland 42 | test\_Field 3/8/2019

Site: AEP	Carrollton-	-Gable Rater(s): JTT, AEH			Date:	2/11/2019
		•		Field Id:		
	32	1		w-aeh-021119-03		
	subtotal this	page				
	0 32	Metric 5. Special Wetlands.				
max 10 pts.	subtotal	Check all that apply and score as indicate  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (4) Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10)	y (10)			
		Known occurrence state/federal threatened or endanger		cies (10)		
		Significant migratory songbird/water fowl habitat or usage Category 1 Wetland. See Question 5 Qualitative Rating (				
	3 35	<del>-  </del>		ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Vegetation Communities.	<b>P</b> 0. 0	Vegetation Community Cove	ar Scalo	
max zupis.	Subtotali	Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed	1	Present and either comprises small pa		
		2 Emergent		vegetation and is of moderate quality,	or comprises a	
		Shrub	_	significant part but is of low quality		
		Forest Mudflats	2	Present and either comprises significative vegetation and is of moderate quality of		
		Open water		part and is of high quality	i comprises a smail	
		Other	3	Present and comprises significant part	, or more, of wetland's 3	
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
		Select only one. High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)		Native spp are dominant component of		
		Low (1)		although nonnative and/or disturbance		
		X None (0) 6c. Coverage of invasive plants. Refer		can also be present, and species diver moderately high, but generallyw/o pres		
		Table 1 ORAM long form for list. Add		threatened or endangered spp to	choc of faic	
		or deduct points for coverage		A predominance of native species, with	n nonnative spp high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)		absent, and high spp diversity and ofte the presence of rare, threatened, or en		
		x Nearly absent <5% cover (0)		the presence of fare, threatened, or er	idangered spp	
		Absent (1)		Mudflat and Open Water Class Qual	ity	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	<u> </u>	
		Score all present using 0 to 3 scale.	_1	Low 0.1 to <1ha (0.247 to 2.47 acres)	<del> </del>	
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres High 4ha (9.88 acres) or more	s)	
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	riigii 41ia (9.00 acres) oi more		
		Amphibian breeding pools		Microtopography Cover Scale		
			0	Absent		
			1	Present very small amounts or if more	common	
Modified			2	of marginal quality  Present in moderate amounts, but not	of highest	
Category 2			2	quality or in small amounts of highest of		
	35 GRANI	O TOTAL(max 100 pts)	3	Present in moderate or greater amount	•	
				and of highest quality		

wetland 42 | test\_Field 3/8/2019



### PHOTOGRAPHIC RECORD **WETLANDS**

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 42

Date:

February 11, 2019

**Description:** 

PEM

Modified Category 2

Facing North



#### Wetland 42

Date:

February 11, 2019 **Description:** 

PEM

Modified Category 2

Facing East





### PHOTOGRAPHIC RECORD **WETLANDS**

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 42

Date:

February 11, 2019

**Description:** 

PEM

Modified Category 2

Facing South



#### Wetland 42

Date:

February 11, 2019 **Description:** 

PEM

Modified Category 2

Facing West





# PHOTOGRAPHIC RECORD WETLANDS

Client Name: Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 42

Date:

February 11, 2019

**Description:** 

PEM

Modified Category 2

Soil Pit



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

Project/Site: Carrollton Gable	City/County: Carroll County Sampling Date: 11-Feb-19
Applicant/Owner: AEP	State: OH Sampling Point: w-aeh-20190211-02
Investigator(s): AEH, JTT	Section, Township, Range: S 26 T 12N R 4W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, none): rolling Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N	Lat.: 40.49203771 Long.: -80.95143998 Datum: NAD 83
Soil Map Unit Name: Rigley sandy loam, 25 to 40 percent slope	es (RgE) <b>NWI classification:</b> N/A
Are climatic/hydrologic conditions on the site typical for this time	e of year? Yes  No (If no, explain in Remarks.)
	ificantly disturbed? Are "Normal Circumstances" present? Yes   No
Are Vegetation 🔲 , Soil 🗌 , or Hydrology 🔲 natur	rally problematic? (If needed, explain any answers in Remarks.)
	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes  No  No	
Hydric Soil Present? Yes  No  No	Is the Sampled Area  Yes  No
Wetland Hydrology Present? Yes ● No ○	within a Wetland?
Hydrology	
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one required; check all that ap	<u> </u>
	ic Plants (B14) Sparsely Vegetated Concave Surface (B8)
	ulfide Odor (C1) Drainage Patterns (B10)
	nizospheres along Living Roots (C3)  Moss Trim Lines (B16)  Dec Connect Makes Table (C3)
	Reduced Iron (C4) Ury Season Water Table (C2) Reduction in Tilled Soils (C6) Crayfish Burrows (C8)
	Surface (C7)  Saturation Visible on Aerial Imagery (C9)
Alexander of Court (DA)	ain in Remarks) Stunted or Stressed Plants (D1)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	Shallow Aquitard (D3)
<ul><li>✓ Water-Stained Leaves (B9)</li><li>☐ Aquatic Fauna (B13)</li></ul>	<ul><li>✓ Microtopographic Relief (D4)</li><li>✓ FAC-neutral Test (D5)</li></ul>
Field Observations:	✓ FAC-neutral Test (D5)
	ches):0.5
Water Table Present? Yes No Depth (inc	ches);
Saturation Present?	ches): 0 Wetland Hydrology Present? Yes   No
(includes capillary fringe)  Describe Recorded Data (stream gauge, monitoring well, aerial	
Remarks:	
Standing water was within the wetland near the pit.	

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

Tree Stratum	ree Rel.	Juli	Indicator Status	Dominance Test worksheet:  Number of Dominant Species That are OBL, FACW, or FAC:
1.       0         2.       0         3.       0         4.       0         5.       0         6.       0         7.       0         8.       0         Sapling-Sapling/Shrub Stratum       (Plot size:		0.0% 0.0% 0.0% 0.0% 0.0% 0.0%		That are OBL, FACW, or FAC:
2.		0.0% 0.0% 0.0% 0.0% 0.0%		Total Number of Dominant Species Across All Strata:
3.		0.0% 0.0% 0.0% 0.0%		Species Across All Strata: (B)  Percent of dominant Species
4		0.0% 0.0% 0.0% 0.0%		Percent of dominant Species
5		0.0% 0.0% 0.0%		1
6		0.0%		That Are OBL, FACW, or FAC:100.0% (A/B)
7		0.0%		
8		0.0%		Prevalence Index worksheet:
Sapling-Sapling/Shrub Stratum	_ = Tota			Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum       (Plot size:				OBL species 0 x 1 = 0
2				FACW species $95 \times 2 = 190$
3		0.0%		
40	. $\square$ _	0.0%		FAC species $0 \times 3 = 0$
7		0.0%		FACU species $0 \times 4 = 0$
		0.0%		UPL species $\frac{0}{x}$ x 5 = $\frac{0}{x}$
5		0.0%		Column Totals: <u>95</u> (A) <u>190</u> (B)
60		0.0%		Prevalence Index = B/A = 2.000
70		0.0%		· —
80		0.0%		Hydrophytic Vegetation Indicators:  Rapid Test for Hydrophytic Vegetation
9 0		0.0%		
10.		0.0%		✓ Dominance Test is > 50%
0		al Cover		<b>У</b> Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)				Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
10	-	0.0%		Problematic Hydrophytic Vegetation (Explain)
2	-	0.0%		
3	-	0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	- 出-	0.0%		
5	- Ц_	0.0%		Definition of Vegetation Strata:
6	- Ц_	0.0%		Four Vegetation Strata:
7	_	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum         (Plot size:)	_ = Tota	al Cover		regardless of height.
1. Elymus riparius 70	<b>~</b>	73.7%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2 Phalaris arundinacea 20	<b>V</b>	21.1%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3 Juncus effusus 5		5.3%	FACW	plants, regardless of size, and all other plants less than 3.28
40		0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
5. 0		0.0%		ft in height.
6		0.0%		
7. 0		0.0%		Five Vegetation Strata:
		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
0		0.0%		diameter at breast height (DBH).
J	-	0.0%		Sapling stratum – Consists of woody plants, excluding
10.	-	0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
	-			Shrub stratum – Consists of woody plants, excluding woody
12		0.0% al Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	1014	ai Covei		Herb stratum - Consists of all herbaceous (non-woody)
1	_ U_	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2		0.0%		3 ft (1 m) in height.
3		0.0%		Woody vines – Consists of all woody vines, regardless of
4		0.0%		height.
5		0.0%		Hudusahudia
6. 0		0.0%		Hydrophytic Vegetation
0	= Tot	al Cover		Present? Yes No
Remarks: (Include photo numbers here or on a separate sheet.)				<u> </u>

Soil Sampling Point: w-aeh-20190211-02

Profile Descri	iption: (De		the depth	needed to				onfirm the	absence of indicators.)			
Depth		Matrix				dox Featu	res 1		·	_		
<u>(inches)</u> 0-5		(moist)	100	Color	(moist)	%	Tvpe 1	Loc²	Texture Silty Clay	Ren	narks	
-	5GY	5/1	100			_						
5-18	5GY	5/1	97	10YR	6/8	_ 3	C	PL	Silty Clay			
					- ——							
<sup>1</sup> Type: C=Cond	centration. [	D=Depletio	n. RM=Red	uced Matrix	, CS=Cover	ed or Coat	ed Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=M	atrix		
Hydric Soil I									Indicators for Proble		ia Cail	_3.
Histosol (A				☐ Dar	k Surface (	S7)			_	-	C SOII	S*:
	pedon (A2)				value Belo		(S8) (MLRA	147,148)	2 cm Muck (A10) (	(MLRA 147)		
Black Histi					n Dark Surf				Coast Prairie Redo	x (A16)		
	Sulfide (A4	)			my Gleyed			,	(MLRA 147,148)			
	Layers (A5)				oleted Matri		•		Piedmont Floodpla (MLRA 136, 147)	iin Soils (F19	)	
	k (A10) (LRI				lox Dark Su				_	Surface (TE	12)	
_	Below Dark		11)		oleted Dark		7)		<ul><li>✓ Very Shallow Dark Surface (TF12)</li><li>✓ Other (Explain in Remarks)</li></ul>			
_ '	k Surface (A		/		lox Depress		•		U Other (Explain in F	Remarks)		
	ck Mineral (	•	J	_	n-Manganes	. ,	F12) (LRR	N,				
MLRA 147	', 148)	OI) (LIKIT	•,	MLF	RA 136)							
☐ Sandy Gle	yed Matrix	(S4)		Um	bric Surface	e (F13) (MI	RA 136, 12	22)	3			
Sandy Red	dox (S5)			Pied	dmont Floo	dplain Soils	(F19) (ML	RA 148)	<sup>3</sup> Indicators of h wetland hydi	nydrophytic v rology must l	egetat	ion and sent
Stripped M	Matrix (S6)			Rec	d Parent Ma	terial (F21)	) (MLRA 12	7, 147)	unless dist	turbed or pro	blema	tic.
Restrictive La	ayer (if obs	served):										
Type:									Hydric Soil Present?	Yes	No (	$\circ$
Depth (inch	nes):								Tryanic Son Fresence	163 0	110	
Remarks:												

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

Project/Site: Carrollton Gable	City	/County: Carroll	Sampling Date: 11-Feb-19
Applicant/Owner: AEP		State: 0	H Sampling Point: upl-aeh-20190211-01/02
Investigator(s): AEH, JTT	Sec	tion, Township, Range: \$	<b>S</b> 26 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, etc.):	Mound Local	relief (concave, convex,	none): rolling
Subregion (LRR or MLRA): LRR N	Lat.: 40,4	1918520 <b>Lo</b>	ng.: -80.9512253030 Datum: NAD 83
Soil Map Unit Name: Rigley sandy l			NWI classification: N/A
	on the site typical for this time of year?	Yes • No O (If no	o, explain in Remarks.)
Are Vegetation , Soil	, or Hydrology significantly dist		al Circumstances" present? Yes No   No
Are Vegetation $\  \   \  \  $ , Soil $\  \   \   \  $	, or Hydrology	matic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At		oling point locatio	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No O		
Hydric Soil Present?	Yes O No O	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No •	within a Wetland?	
Hydrology			
Wetland Hydrology Indicators:			_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of or			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14	-	Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2)☐ Saturation (A3)	Hydrogen Sulfide Odor (	•	Drainage Patterns (B10)
Water Marks (B1)	Oxidized Rhizospheres al Presence of Reduced Iron	. ,	☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in	` '	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Surface (C7)	(55)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remark	s)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Image	ry (B7)		Shallow Aquitard (D3)
<ul><li>Water-Stained Leaves (B9)</li><li>☐ Aquatic Fauna (B13)</li></ul>			Microtopographic Relief (D4)
Field Observations:			✓ FAC-neutral Test (D5)
Surface Water Present? Yes	No  Depth (inches):		
Water Table Present? Yes			
Saturation Present?		Wetland Hyd	Irology Present? Yes O No 💿
(includes capillary fringe)	· · · · · · · · · · · · · · · · · · ·		
Describe Recorded Data (stream ga	auge, monitoring well, aerial photos, pre	vious inspections), if ava	llable:
Remarks:			
Remarks.			

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

(5)	Absolute	R	el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		over	Status	
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC:1(A)
) )	0		0.0%		
3	0		0.0%		Total Number of Dominant Species Across All Strata: 2 (B)
1	0		0.0%		
5	0		0.0%		Percent of dominant Species
5	0		0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
7	0		0.0%		Prevalence Index worksheet:
3	0		0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	)=	= To	otal Cove	r	OBL species x 1 = FACW species 70 x 2 =140
l	_		0.0%		
2	0		0.0%		FAC species $0 \times 3 = 0$
3	0		0.0%		FACU species $\frac{20}{3}$ x 4 = $\frac{80}{3}$
1	0		0.0%		UPL species $0 \times 5 = 0$
5	0		0.0%		Column Totals: 90 (A) 220 (B)
5	_		0.0%		Prevalence Index = B/A = 2.444
7			0.0%		Hydrophytic Vegetation Indicators:
3	•		0.0%		Rapid Test for Hydrophytic Vegetation
9	0		0.0%		Dominance Test is > 50%
)	0		0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	_	= To	otal Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting
Rubus allegheniensis	5	<b>V</b>	100.0%	FACU	data in Remarks or on a separate sheet)
2.			0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1.			0.0%		be present, unless disturbed or problematic.
5			0.0%		Definition of Vegetation Strata:
5			0.0%		Four Vegetation Strata:
7.	_		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size:)		= To	otal Cove	r	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	70	<b>V</b>	82.4%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
Phalaris arundinacea Rubus allegheniensis			17.6%	FACU	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
-	0		0.0%	TACO	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3 1		$\Box$	0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
5			0.0%		ft in height.
			0.0%		
5			0.0%		Five Vegetation Strata:
7			0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
			0.0%		diameter at breast height (DBH).
)			0.0%		Sapling stratum – Consists of woody plants, excluding
)			0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
l 2			0.0%		Shrub stratum – Consists of woody plants, excluding woody
		 = Te	otal Cove	r	vines, approximately 3 to 20 ft (1 to 6 m) in height.
Noody Vine Stratum (Plot size:)					Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and
1			0.0%		woody species, except woody vines, less than approximately
2			0.0%		3 ft (1 m) in height.
3			0.0%		Woody vines – Consists of all woody vines, regardless of height.
1			0.0%		
5			0.0%		Hydrophytic
5			0.0%		Vegetation Present? Yes ○ No ●
	0	= T	otal Cove	er l	Liesenti 100 C 110 C

Soil Sampling Point: upl-aeh-20190211-01/02

Profile Descript	ion: (Describe to	the depth no	eded to document	the indic	ator or co	nfirm the	absence of indicators.)			
Depth —	Matrix		Red	lox Featu	res					
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks		
0-18	10YR 4/2	100					Silty Clay			
<sup>1</sup> Type: C=Concer	ntration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=Ma	trix		
Hydric Soil Ind	licators:						Indicators for Problem	atic Hydric Soils <sup>3</sup> :		
Histosol (A1)			☐ Dark Surface (	57)			_	-		
Histic Epiped			Polyvalue Belov	,	S8) (MLRA	147,148)	2 cm Muck (A10) (M			
Black Histic (			☐ Thin Dark Surfa	•	, .		Coast Prairie Redox	(A16)		
Hydrogen Su	,		Loamy Gleyed		,-	,	(MLRA 147,148)	a. II. (=10)		
Stratified Lay			Depleted Matrix				Piedmont Floodplair (MLRA 136, 147)	Soils (F19)		
	A10) (LRR N)		Redox Dark Su				Very Shallow Dark S	turface (TE12)		
	low Dark Surface (A	11)	Depleted Dark	` ,	<b>'</b> )					
☐ Thick Dark S	-	11)	Redox Depress		,		Other (Explain in Re	emarks)		
			☐ Iron-Manganes	. ,	F12) (I RR I	V.				
MLRA 147, 1	Mineral (S1) (LRR N .48)	,	MLRA 136)	cacces (		-,				
	d Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)				
Sandy Redox			Piedmont Floor	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hy	drophytic vegetation and		
Stripped Mat			Red Parent Ma				wetland hydrology must be present, unless disturbed or problematic.			
	(55)		Red rareneria	ceriai (i 21)	(FILITA 12)	,, = 17)	u	. Dea G. p. Go. G. Marie.		
Restrictive Laye	er (if observed):									
Type:										
Depth (inches	s):						Hydric Soil Present?	Yes ○ No ●		
Remarks:										

#### Wetland 43

Site: AEP Carroll	ton-Gab	ole Rater(s): JTT, AEH		Date:	2/11/2019
			Field Id:		
0	0	Metric 1. Wetland Area (size).	w-aeh-021119-02		
max 6 pts subto		Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.01 acres		
4		Metric 2. Upland buffers and surrour	nding land use.		
max 14 pts. subt	x	2a. Calculate average buffer width. Select only one and WIDE. Buffers average 50m (164ft) or more around wetlar MEDIUM. Buffers average 25m to <50m (82 to <164ft) aro NARROW. Buffers average 10m to <25m (32ft to <82ft) ard VERY NARROW. Buffers average <10m (<32ft) around with very superior of surrounding land use. Select one or down of the VERY LOW. 2nd growth or older forest, prairie, savannah, LOW. Old field (>10 years), shrubland, young second grow MODERATELY HIGH. Residential, fenced pasture, park, c	nd perimeter (7) und wetland perimeter (4) round wetland perimeter (1) etland perimeter (0) suble check and average. wildlife area, etc. (7) rth forest. (5)		
		HIGH. Urban, industrial, open pasture, row cropping, minin			
5.0	9.0	Metric 3. Hydrology.			
max 30 pts. subb	X X X X	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6 in) (3) 0.4 to 0.7m (15.7 to 27.6 in) (2) <0.4m (<15.7 in) (1) 3e. Modifications to natural hydrologic regime. Score (None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch point: tile x filling/ dike road tweir dredg stormwater input Other	an use (1) omplex (1)  . Score one or dbl chec rated (4)  (12in) (1)  source (nonstormwater) grading bed/RR track ing	k.
3.5 1	2.5	Metric 4. Habitat Alteration and Deve	elopment.		
max 20 pts. subt	X X X X X X X X X X X X X X X X X X X	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign s Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and sone or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1)	average.  Check all disturbances observed  X mowing X grazing X clearcutting X elearcutting X elective cutting X woody debris removal X farmir		tal

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

wetland 43 | test\_Field 3/8/2019

Site: AEF	Carrollton-	Gable Rater(s): JTT, AEH			Date:	2/11/2019
		, · · · · · · · · · · · · · · · · · · ·		Field Id:		
	12.5	]		w-aeh-021119-02		
	subtotal this					
max 10 pts.	subtotal	Check all that apply and score as indicated	d.			
		Bog (10)				
		Fen (10)				
		Old growth forest (10)				
		Mature forested wetland (5)  Lake Erie coastal/tributary wetland-unrestricted hydrology	v (10)			
		Lake Erie coastal/tributary wetland-restricted hydrology (5				
		Lake Plain Sand Prairies (Oak Openings) (10)				
		Relict Wet Praires (10)  Known occurrence state/federal threatened or endangered	ad ana	sice (10)		
		Significant migratory songbird/water fowl habitat or usage		cies (10)		
		Category 1 Wetland. See Question 5 Qualitative Rating (				
	1 13.5	Metric 6. Plant communities, inters	pers	ion, microtopography.		
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		Vegetation Community Cove	er Scale	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed 1 Emergent	1	Present and either comprises small pa		
		Shrub		significant part but is of low quality	or comprises a	
		Forest	2	Present and either comprises significa	nt part of wetland's 2	
		Mudflats		vegetation and is of moderate quality of	r comprises a small	
		Open water Other	- 2	part and is of high quality  Present and comprises significant part	or more of wetlendle 2	
		6b. horizontal (plan view) Interspersion.	3	vegetation and is of high quality	, or more, or welland's 3	
		Select only one.		regenation and is or mgn quality		
		High (5)		Narrative Description of Vegetation		
		Moderately high(4)		Low spp diversity and/or predominance	e of nonnative or low	
		Moderate (3)  Moderately low (2)		disturbance tolerant native species  Native spp are dominant component or	f the vegetation mod	
		Low (1)		although nonnative and/or disturbance		
		X None (0)		can also be present, and species diver		
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres	ence of rare	
		Table 1 ORAM long form for list. Add or deduct points for coverage		threatened or endangered spp to  A predominance of native species, with	n nonnative snn high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or er	ndangered spp	
		x Nearly absent <5% cover (0) Absent (1)		Mudflat and Open Water Class Qual	itv	
		6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	···y	
		Score all present using 0 to 3 scale.	1	,		
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acre High 4ha (9.88 acres) or more	s)	
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3	High 4ha (9.00 acres) of hiore		
		Amphibian breeding pools		Microtopography Cover Scale		
				Absent		
			1	Present very small amounts or if more	common	
			2	of marginal quality  Present in moderate amounts, but not	of highest	
Category 1			-	quality or in small amounts of highest of		
	13.5 GRANI	TOTAL(max 100 pts)	3	Present in moderate or greater amoun	ts	
				and of highest quality		

wetland 43 | test\_Field 3/8/2019



WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 43

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing North



#### Wetland 43

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing East





WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 43

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing South



#### Wetland 43

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 43

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Soil Pit



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

<b>Project/Site:</b> Carrollton-Gable 138 kV Transmission Line	City/County: Carroll County	Sampling Date: 11-Feb-19
Applicant/Owner: AEP	State: OH	Sampling Point: w-aeh-021119-01
Investigator(s): JTT, AEH	Section, Township, Range: S	26 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, nor	ne): concave Slope: 0.0% / 0.0 °
Subregion (LRR or MLRA): LRR N		: -80.951011
Soil Map Unit Name: RgE	10.131733	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical	for this time of year? Yes $ullet$ No $igcirc$ (If no, ex	xplain in Remarks.)
Are Vegetation $\square$ , Soil $\square$ , or Hydrology	significantly disturbed? Are "Normal Ci	ircumstances" present? Yes   No
Are Vegetation $\  \  \  \  \  \  \  \  \  \  $ , Soil $\  \  \  \  \  \  $ , or Hydrology	naturally problematic? (If needed, exp	plain any answers in Remarks.)
Summary of Findings - Attach site ma	p showing sampling point locations	, transects, important features, etc.
Hydrophytic Vegetation Present? Yes   No	$\supset$	
Hydric Soil Present? Yes   No	Is the Sampled Area	es   No
Wetland Hydrology Present? Yes   No	within a Wetland?	
Remarks: PEM on hillside underneath transmission line. Wetl stream	and appears to be sourced by precipitation and a s	ubsurface seep. Water flows downhill towards
Hydrology		
Wetland Hydrology Indicators:	_S	econdary Indicators (minimum of two required)
Primary Indicators (minimum of one required; chec	k all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
✓ Saturation (A3)	Oxidized Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)	Presence of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remarks)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)	<u> </u>	
Inundation Visible on Aerial Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	<u> </u>	
Aquatic Fauna (B13)		FAC-neutral Test (D5)
Field Observations: Surface Water Present?  Yes  No	Depth (inches): 1	
Water Table Present? Yes No	Depth (inches): 0	
	Wetland Hydrol	ogy Present? Yes   No
(Includes capillary Inlige)	Depth (inches):0	
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspections), if availab	le:
Demonstra		
Remarks:		

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

		Species?	Sampling Point: w-aeh-021119-01
Tree Stratum (Plot size:)	Absolute % Cover	Rel Strat Indicator	300000000000000000000000000000000000000
1	0	0.0%	Number of Dominant Species That are OBL, FACW, or FAC:
2	0		Tabal Namban of Danisant
3	0		Total Number of Dominant Species Across All Strata: 1 (B)
4			
5		0.0%	Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6		0.0%	That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0		Prevalence Index worksheet:
8	0	0.0%	Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	,0 =	= Total Cover	OBL species
		0.0%	FACW species 90 x 2 = 180
1		0.0%	FAC species $0 \times 3 = 0$
2		0.0%	FACU species $0 \times 4 = 0$
3		0.0%	UPL species $0 \times 5 = 0$
4		0.0%	Column Totals: 90 (A) 180 (B)
5		0.0%	
6		0.0%	Prevalence Index = B/A = 2.000
7		0.0%	Hydrophytic Vegetation Indicators:
8		0.0%	Rapid Test for Hydrophytic Vegetation
9		0.0%	<b>✓</b> Dominance Test is > 50%
0		= Total Cover	<b>✓</b> Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)			Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
1		0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
2		0.0%	
3		0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4			
5		0.0%	Definition of Vegetation Strata:
6			Four Vegetation Strata:  Tree stratum – Consists of woody plants, excluding vines, 3
7			in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	=	= Total Cover	regardless of height.  Sapling/shrub stratum – Consists of woody plants, excluding
1 _ Phalaris arundinacea	85	<b>У</b> 94.4% FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Juncus effusus	5	5.6%FACW	Herb stratum – Consists of all herbaceous (non-woody)
3	0		plants, regardless of size, and all other plants less than 3.28 ft tall. Woody vines – Consists of all woody vines greater than 3.28
4	0		Woody vines – Consists of all woody vines greater than 3.28   ft in height.
5			
6			Five Vegetation Strata:
7			Tree - Woody plants, excluding woody vines, approximately
8			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9			Sapling stratum – Consists of woody plants, excluding
0		0.0%	woody vines, approximately 20 ft (6 m) or more in height and
1			less than 3 in. (7.6 cm) DBH.
2	0	0.0%	Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	90 =	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%	plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0		3 ft (1 m) in height.
3	0		Woody vines - Consists of all woody vines, regardless of
4		0.0%	height.
5			Hydrophytic
J.,			Hydrophytic
56.	0		Vegetation Present? Yes No

Soil Sampling Point: w-aeh-021119-01

		the depth i				nfirm the	absence of indicators.)		
Depth (inches)	Matrix Color (moist)	1				Loc <sup>2</sup>	Texture	Remarks	
0-16	10YR 2/1	98	10YR 5/8	20	С	M	Silt Loam	Remarks	
	r								
<sup>1</sup> Type: C=Con	centration. D=Depletic	on. RM=Redu	ced Matrix. CS=Cover	ed or Coat	ted Sand Gr	ains <sup>2</sup> loc	ation: PL=Pore Lining. M=N	Matrix	
Hydric Soil 1			000 1 100 100 100 100 100 100 100 100 1						
Histosol (			Dark Surface (	(S7)			Indicators for Proble	-	
`	pedon (A2)		Polyvalue Belo	. ,	(S8) (MLRA	147,148)	2 cm Muck (A10)		
☐ Black Hist			Thin Dark Surf				Coast Prairie Redo (MLRA 147,148)	ox (A16)	
Hydroger	Sulfide (A4)		Loamy Gleyed	Matrix (F2	)		Piedmont Floodpl	ain Caile (E10)	
Stratified	Layers (A5)		Depleted Matri	x (F3)			(MLRA 136, 147)		
2 cm Muc	k (A10) (LRR N)		✓ Redox Dark Su	ırface (F6)			Very Shallow Dar	k Surface (TF12)	
Depleted	Below Dark Surface (A	\11)	Depleted Dark	Surface (F	7)		Other (Explain in	Remarks)	
Thick Dar	k Surface (A12)		Redox Depress					·	
Sandy Mu MLRA 147	uck Mineral (S1) (LRR   7, 148)	N,	Iron-Manganes MLRA 136)	se Masses	(F12) (LRR	N,			
Sandy Gle	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)	3		
☐ Sandy Re	edox (S5)		☐ Piedmont Floo	dplain Soil	s (F19) (ML	<sup>3</sup> Indicators of hydrophytic wetland hydrology musi			and :,
Stripped	Matrix (S6)		Red Parent Ma	iterial (F21	.) (MLRA 12	7, 147)		sturbed or problematic.	•
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	:hes):						Hydric Soil Present?	Yes   No	
Remarks:									

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

Project/Site: Carrollton Gable	City	/County: Carroll	Sampling Date: 11-Feb-19
Applicant/Owner: AEP		State: 0	H Sampling Point: upl-aeh-20190211-01/02
Investigator(s): AEH, JTT	Sec	tion, Township, Range: \$	<b>S</b> 26 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, etc.):	Mound Local	relief (concave, convex,	none): rolling
Subregion (LRR or MLRA): LRR N	Lat.: 40,4	1918520 <b>Lo</b>	ng.: -80.9512253030 Datum: NAD 83
Soil Map Unit Name: Rigley sandy l			NWI classification: N/A
	on the site typical for this time of year?	Yes • No O (If no	o, explain in Remarks.)
Are Vegetation , Soil	, or Hydrology significantly dist		al Circumstances" present? Yes No
Are Vegetation $\  \   \  \   $ , Soil $\  \   \   \  $	, or Hydrology	matic? (If needed,	explain any answers in Remarks.)
Summary of Findings - At		oling point locatio	ons, transects, important features, etc.
Hydrophytic Vegetation Present?	Yes No O		
Hydric Soil Present?	Yes O No O	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No •	within a Wetland?	
Hydrology			
Wetland Hydrology Indicators:			_Secondary Indicators (minimum of two required)
Primary Indicators (minimum of or			Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic Plants (B14	-	Sparsely Vegetated Concave Surface (B8)
☐ High Water Table (A2)☐ Saturation (A3)	Hydrogen Sulfide Odor (	•	Drainage Patterns (B10)
Water Marks (B1)	Oxidized Rhizospheres al Presence of Reduced Iron	. ,	☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
Sediment Deposits (B2)	Recent Iron Reduction in	` '	Crayfish Burrows (C8)
Drift deposits (B3)	Thin Muck Surface (C7)	(55)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Other (Explain in Remark	s)	Stunted or Stressed Plants (D1)
Iron Deposits (B5)			Geomorphic Position (D2)
Inundation Visible on Aerial Image	ry (B7)		Shallow Aquitard (D3)
<ul><li>Water-Stained Leaves (B9)</li><li>☐ Aquatic Fauna (B13)</li></ul>			Microtopographic Relief (D4)
Field Observations:			✓ FAC-neutral Test (D5)
Surface Water Present? Yes	No  Depth (inches):		
Water Table Present? Yes			
Saturation Present?		Wetland Hyd	Irology Present? Yes O No 💿
(includes capillary fringe)	· · · · · · · · · · · · · · · · · · ·		
Describe Recorded Data (stream ga	auge, monitoring well, aerial photos, pre	vious inspections), if ava	llable:
Remarks:			
Remarks.			

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

			pecies? –		Sampling Point: <u>upi-aen-20190211-01/02</u>
	Absolute			Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	C	over	Status	
1	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
			0.0%		
2.					Total Number of Dominant
3			0.0%		Species Across All Strata: (B)
4	0		0.0%		
5	0	Ш	0.0%		Percent of dominant Species  That Are OBL_FACW_or_FAC: 50.0% (A/B)
6	0		0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
7			0.0%		Prevalence Index worksheet:
8	0	П	0.0%		Total % Cover of: Multiply by:
	0	_ T	otal Cover		
Sapling-Sapling/Shrub Stratum (Plot size:			otal cover		
1			0.0%		FACW species
		$\Box$	0.0%		FAC species $0 \times 3 = 0$
2					FACU species $20 \times 4 = 80$
3			0.0%		
4	0		0.0%		ore species x y =
5	0		0.0%		Column Totals:90 (A)220 (B)
6	0		0.0%		Prevalence Index = B/A = 2,444
7	0		0.0%		,
		$\Box$	0.0%		Hydrophytic Vegetation Indicators:
8	-				☐ Rapid Test for Hydrophytic Vegetation
9	-		0.0%		☐ Dominance Test is > 50%
10	0	Ш	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0	= T	otal Cover		Morphological Adaptations <sup>1</sup> (Provide supporting
1. Rubus allegheniensis	5	<b>V</b>	100.0%	FACU	data in Remarks or on a separate sheet)
			0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
2					
3			0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	0	Ш	0.0%		
5			0.0%		Definition of Vegetation Strata:
6.			0.0%		Four Vegetation Strata:
		$\Box$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
7		_			in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size:)	5	= 10	otal Cover		regardless of height.
1 Phalaris arundinacea	70	<b>V</b>	82.4%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2 Rubus allegheniensis	15		17.6%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
3.	0		0.0%		plants, regardless of size, and all other plants less than 3.28
4	0	$\Box$	0.0%		ft tall. Woody vines – Consists of all woody vines greater than 3.28
4					ft in height.
5	0		0.0%		
6	0	$\sqcup$	0.0%		Five Vegetation Strata:
7	0	Ш	0.0%		Tree - Woody plants, excluding woody vines, approximately
8	0		0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9			0.0%	-	diameter at breast height (DBH).
10.		$\Box$	0.0%		Sapling stratum – Consists of woody plants, excluding
. • .					woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
11	0		0.0%		`
12	0	Ш	0.0%		Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
_Woody Vine Stratum (Plot size:)	85	= T	otal Cover		Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
					woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4			0.0%		height.
5	0		0.0%	Ì	
			0.0%		Hydrophytic Vegetation
6					Present? Yes No •
	0	= 1	otal Cover		
Remarks: (Include photo numbers here or on a separate she	et.)				
•					

Soil Sampling Point: upl-aeh-20190211-01/02

Profile Descript	ion: (Describe to	the depth no	eded to document	the indic	ator or co	nfirm the	absence of indicators.)	
Depth —	Matrix		Red	lox Featu	res			
(inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-18	10YR 4/2	100					Silty Clay	
<sup>1</sup> Type: C=Concer	ntration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Cover	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=Ma	trix
Hydric Soil Ind	licators:						Indicators for Problem	atic Hydric Soils <sup>3</sup> :
Histosol (A1)			☐ Dark Surface (	57)			_	-
Histic Epiped			Polyvalue Belov	,	S8) (MLRA	147,148)	2 cm Muck (A10) (M	
Black Histic (			☐ Thin Dark Surfa	•	, .		Coast Prairie Redox	(A16)
Hydrogen Su	,		Loamy Gleyed		,-	,	(MLRA 147,148)	a. II. (=10)
Stratified Lay			Depleted Matrix				Piedmont Floodplair (MLRA 136, 147)	Soils (F19)
	A10) (LRR N)		Redox Dark Su				Very Shallow Dark S	turface (TE12)
	low Dark Surface (A	11)	Depleted Dark	` ,	<b>'</b> )			
☐ Thick Dark S	-	11)	Redox Depress		,		Other (Explain in Re	emarks)
			☐ Iron-Manganes	. ,	F12) (I RR I	V.		
MLRA 147, 1	Mineral (S1) (LRR N .48)	,	MLRA 136)	cacces (		-,		
	d Matrix (S4)		Umbric Surface	(F13) (ML	RA 136, 12	2)		
Sandy Redox			Piedmont Floor	dplain Soils	(F19) (MLF	RA 148)	<sup>3</sup> Indicators of hy	drophytic vegetation and
Stripped Mat			Red Parent Ma					logy must be present, rbed or problematic.
	(55)		Red rareneria	ceriai (i 21)	(FILITA 12)	,, = 1,,	u	. Dea C. p. Co. c
Restrictive Laye	er (if observed):							
Type:								
Depth (inches	s):						Hydric Soil Present?	Yes ○ No ●
Remarks:								

#### Wetland 44

Site: AE	P Carrollton	-Gable Rater(s): JTT, AE	Н	Date:	2/11/2019
			Field Id:		
	0 (	Metric 1. Wetland Area (size).	w-aeh-021119-01		
max 6 pts	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)  10 to <25 acres (4 to <10.1ha) (4 pts)  3 to <10 acres (1.2 to <4ha) (3 pts)  0.3 to <3 acres (0.12 to <1.2ha) (2pts)  0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)  < <0.1 acres (0.04ha) (0 pts)	0.03 acres		
	4 4	Metric 2. Upland buffers and sur	rounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only or WIDE. Buffers average 50m (164ft) or more around v MEDIUM. Buffers average 25m to <50m (82 to <164 X NARROW. Buffers average 10m to <25m (32ft to <8 VERY NARROW. Buffers average <10m (<32ft) around v 2b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, sava X LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, r HIGH. Urban, industrial, open pasture, row cropping,	wetland perimeter (7) ff) around wetland perimeter (4) 2ft) around wetland perimeter (1) und wetland perimeter (0) or double check and average. nnah, wildlife area, etc. (7) d growth forest. (5) park, conservation tillage, new fallow field. (3)		
	4.0 8.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)	3b. Connectivity. Score all that	t apply.	
	25 44 5	Other groundwater (3)  X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one.  >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. S None or none apparent (12) Recovered (7) Recovering (3) X Recent or no recovery (1)	Check all disturbances observ ditch x tile dike weir ditch stormwater input O	st), complex (1) r (1) tition. Score one or dbl c saturated (4) ) ccm (12in) (1)	
	3.5 11.5		•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double of None or none apparent (4) Recovered (3)  x Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and ass Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1) 4c. Habitat alteration. Score one or double check None or none apparent (9) Recovered (6) Recovered (6) Recent or no recovery (1)	and average.  Check all disturbances observed  X mowing X si X grazing h X clearcutting X si x selective cutting X woody debris removal X fa	hrub/sapling removal erbaceous/aquatic bed re edimentation redging arming	moval
	11.5	5	toxic pollutants x ni	utrient enrichment	

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

wetland 44 | test\_Field 3/8/2019

Site: AEF	Carrollton-	Gable Rater(s): JTT, AE	H		Date:	2/11/2019
		•		Field Id:	-	
	11.5			w-aeh-021119-01		
	subtotal this p	Metric 5. Special Wetlands.				
max 10 pts.	subtotal	Check all that apply and score as indicated by the score as indicated	blogy (10) gy (5) ngered spe sage (10) ing (-10)			
	1 12.5	Metric 6. Plant communities, inte	rspers		Cl-	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		Vegetation Community Cov		
		Score all present using 0 to 3 scale.  Aquatic bed		Absent or comprises <0.1ha (0.2471 a Present and either comprises small pa		
		1 Emergent	'	vegetation and is of moderate quality,		
		Shrub		significant part but is of low quality	or comprises a	
		Forest	2	Present and either comprises significa	nt part of wetland's 2	
		Mudflats		vegetation and is of moderate quality of	r comprises a small	
		Open water		part and is of high quality		
		Other	3	Present and comprises significant part	, or more, of wetland's 3	
		<b>6b. horizontal (plan view) Interspersion.</b> Select only one.		vegetation and is of high quality		
		High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)		Native spp are dominant component o		
		Low (1)		although nonnative and/or disturbance		
		X None (0)		can also be present, and species dive		
		6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add		moderately high, but generallyw/o pres threatened or endangered spp to	ence or rare	
		or deduct points for coverage		A predominance of native species, with	n nonnative spp high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% cover (-3)		absent, and high spp diversity and often		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or er	ndangered spp	
		x Nearly absent <5% cover (0)				
		Absent (1)	•	Mudflat and Open Water Class Qual	ity	
		6d. Microtopography.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Score all present using 0 to 3 scale.  Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acre	e)	
		Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more	3)	
		Standing dead >25cm (10in) dbh		[g (* =)		
		Amphibian breeding pools		Microtopography Cover Scale		
		<del></del>		Absent		
			1	Present very small amounts or if more	common	
				of marginal quality	-f b:-b4	
Catagon, 4			2	Present in moderate amounts, but not		
Category 1				quality or in small amounts of highest of	•	
	12.5 GRAND	TOTAL(max 100 pts)	3	Present in moderate or greater amoun	ts	
				and of highest quality		

wetland 44 | test\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 44

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing North



#### Wetland 44

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 44

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing South



#### Wetland 44

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 44

Date:

February 11, 2019

**Description:** 

PEM

Category 1

Soil Pit



## Wetland 45

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

Project/Site: Carrollton_Gable		City/County: Carroll	Sampling	<b>Date:</b> 12-Feb-19
Applicant/Owner: AEP		State: O	Sampling Point:	W-CMS-01
Investigator(s): CMS, RM		Section, Township, Range: S	<b>5</b> 20 <b>T</b> 12N	R 4W
Landform (hillslope, terrace, etc.):	hillslope	Local relief (concave, convex,	none): concave Si	ope: _20.0%_ / <sub>11.3</sub> °
Subregion (LRR or MLRA): N 124	La	- t.: 40.483140 <b>Lo</b>	ng.: -80.941861	Datum: NAD83
Soil Map Unit Name: GuB - Guerns	sey silty clay loam, 3 to 8 percer	nt slopes	NWI classification: N	A
Are climatic/hydrologic conditions o	on the site typical for this time o	f vear? Yes   No (If no	, explain in Remarks.)	
Are Vegetation , Soil			I Circumstances" present?	Yes O No •
Are Vegetation , Soil	, or Hydrology 🗹 naturall	y problematic? (If needed,	explain any answers in Rema	arks.)
Summary of Findings - At	ttach site map showing	g sampling point locatio	ns, transects, import	tant features, etc.
Hydrophytic Vegetation Present?	Yes   No			
Hydric Soil Present?	Yes   No	Is the Sampled Area	Yes ● No ○	
Wetland Hydrology Present?	Yes   No	within a Wetland?	103 0 110 0	
Remarks:				
groundwater discharge.Snow melt	t and heavy rain contributed to	hydrology indicators.		
Hydrology				
Wetland Hydrology Indicators:			Secondary Indicators (minimum	n of two required)
Primary Indicators (minimum of o			Surface Soil Cracks (B6)	
Surface Water (A1)	☐ True Aquatic Pl	` ,	Sparsely Vegetated Concav	re Surface (B8)
✓ High Water Table (A2) ✓ Saturation (A3)	Hydrogen Sulfic	` ,	✓ Drainage Patterns (B10)	
Water Marks (B1)		spheres along Living Roots (C3) duced Iron (C4)	Moss Trim Lines (B16)  Dry Season Water Table (C	וכי
Sediment Deposits (B2)		duction in Tilled Soils (C6)	Crayfish Burrows (C8)	.2)
Drift deposits (B3)	Thin Muck Surf	• •	Saturation Visible on Aerial	Imagery (C9)
☐ Algal Mat or Crust (B4)	Other (Explain	• •	Stunted or Stressed Plants	(D1)
Iron Deposits (B5)		,	✓ Geomorphic Position (D2)	
Inundation Visible on Aerial Image	ery (B7)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9)			✓ Microtopographic Relief (D	4)
Aquatic Fauna (B13)			✓ FAC-neutral Test (D5)	
Field Observations: Surface Water Present?  Yes	No Depth (inches	5):		
Water Table Present? Yes		·		
Saturation Present?  (includes capillary frings)  Yes	) (	Wetland Hyd	rology Present? Yes •	No O
(includes capillary ininge)				
Describe Recorded Data (stream ga	auge, monitoring well, aerial ph	otos, previous inspections), if avai	llable:	
Remarks:				
Precipitation, ground water dischar	rge and snow melt contributed t	o hydrology evident at time of sa	mnling	
Treespication, ground water disental	ge and show mere contributed to	o flydrology evident at time of sai	iipiiiig.	

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

		-Species?		
(District of	Absolute	Rel Strat	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Cover	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1(A)
2	0	0.0%		Total Number of Dominant
3	0			Species Across All Strata:
4	0	0.0%		
5	0	0.0%		Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6	0	0.0%		That Are OBL, FACW, or FAC: 100.0% (A/B)
7	0	0.0%		Prevalence Index worksheet:
8	0	0.0%		Total % Cover of: Multiply by:
(Diet size)	,0 =	= Total Cove	r	OBL species5 x 1 =5
Sapling-Sapling/Shrub Stratum (Plot size:				FACW species <u>85</u> x 2 = <u>170</u>
1		0.0%		FAC species5 x 3 =15
2				FACU species $5 \times 4 = 20$
3		0.0%		
4				·
5				Column Totals: 100 (A) 210 (B)
6				Prevalence Index = $B/A = \underline{2.100}$
7	0	0.0%		Hydrophytic Vegetation Indicators:
8		0.0%		Rapid Test for Hydrophytic Vegetation
9	0	0.0%		✓ Dominance Test is > 50%
0		0.0%		✓ Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0=	= Total Cove	r	
1	0	0.0%		Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
		0.0%		Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
3		0.0%		be present, unless disturbed or problematic.
4		$\neg$		Definition of Vegetation Strata:
5		0.0%		Four Vegetation Strata:
6				Tree stratum – Consists of woody plants, excluding vines, 3
7		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: _5' )	=	= Total Cove	r	regardless of height.
1 . Phalaris arundinacea		<b>✓</b> 75.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Juncus effusus	10	10.0%	FACW	Herb stratum – Consists of all herbaceous (non-woody)
3. Dichanthelium clandestinum	5	5.0%	FAC	plants, regardless of size, and all other plants less than 3.28
4 Apocynum cannabinum	5	5.0%	FACU	ft tall, Woody vines – Consists of all woody vines greater than 3.28
5. Carex vulpinoidea	5	5.0%	OBL	ft in height.
6	0	0.0%		Five Venetation Charles
7		0.0%		Five Vegetation Strata:
8		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9		0.0%		diameter at breast height (DBH).
		0.0%		Sapling stratum – Consists of woody plants, excluding
0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1 2.	0	0.0%		Shrub stratum – Consists of woody plants, excluding woody
		= Total Cove		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)		– Total Cove	•	Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0	0.0%		3 ft (1 m) in height.
3		0.0%		Woody vines – Consists of all woody vines, regardless of
4	0	0.0%		height.
5		0.0%		Hadanahada
6.		0.0%		Hydrophytic Vegetation
·				Present? Yes • No
	0 :	= Total Cove	er I	riesent:

Soil Sampling Point: W-CMS-01

		the depth				onfirm the	absence of indicators.)		
Depth Matrix (inches) Color (moist) %		Matrix         Redox Features           (moist)         %         Color (moist)         %         Type         1         Loc²				Texture	Rem	narks	
0-18	5YR 5/2	80	10YR 5/6	20	C	M	Clay Loam	Ken	idiks
	-						-		
Type: C=Con	ncentration. D=Depletic	on. RM=Redi	iced Matrix. CS=Cover	ed or Coat	ted Sand Gr	ains <sup>2</sup> l oca	ation: PL=Pore Lining. M=1	Matrix	
Hydric Soil 1		on. Kri–Reac	icca Flatfix, C5=C0VCI	ca or coar	ica sana oi	unis Loci			3
Histosol (			Dark Surface (	S7)			Indicators for Proble	•	c Soils <sup>3</sup> :
	pedon (A2)		Polyvalue Belo		(S8) (MLRA	147,148)	2 cm Muck (A10)	(MLRA 147)	
Black Hist			☐ Thin Dark Surf				Coast Prairie Red	ox (A16)	
	n Sulfide (A4)		Loamy Gleyed				(MLRA 147,148)	-i- C-il- (F10)	
Stratified	Layers (A5)		✓ Depleted Matri				Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)	)
2 cm Muc	ck (A10) (LRR N)		Redox Dark Su	ırface (F6)			Very Shallow Dar	k Surface (TF1	12)
Depleted	Below Dark Surface (A	\11)	Depleted Dark	Surface (F	7)		Other (Explain in	-	,
☐ Thick Dar	rk Surface (A12)		Redox Depress				_ 、,	,	
Sandy Mu MLRA 147	uck Mineral (S1) (LRR   7, 148)	N,	Iron-Manganes MLRA 136)	se Masses	(F12) (LRR	N,			
Sandy Gle	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)	3		
☐ Sandy Re	edox (S5)		Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	<sup>3</sup> Indicators of wetland hyd	hydrophytic ve Irology must b	egetation and be present,
Stripped	Matrix (S6)		Red Parent Ma	iterial (F21	.) (MLRA 12	7, 147)		sturbed or pro	
Restrictive L	.ayer (if observed):								
Type:	, c. ( 0200.101.).								
Depth (inc	ches):						Hydric Soil Present?	Yes 💿	No O
Remarks:	, .								

## Upland 45

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

Project/Site: Carrollton_Gable		City/County:	Carroll		Samplin	g Date: 12-Feb-19
Applicant/Owner: AEP			State: OH		Sampling Point	t: UPL-W-CMS-01
Investigator(s): CMS, RM		Section, Town	ship, Range: S	20	<b>T</b> 12N	R 4W
Landform (hillslope, terrace, etc.):	Flat	Local relief (con	cave, convex, no	one):	flat	Slope: 2.0% / 1.1 °
Subregion (LRR or MLRA): N 124		 Lat.: 40,483284	Lonc	a.: -8	30.941742	Datum: NAD83
Soil Map Unit Name: GuB - Guernse	ey silty clay loam, 3			_	NWI classification:	
Are climatic/hydrologic conditions or	n the site typical fo	r this time of year? Yes	No 🔾 (If no, o	expla	in in Remarks.)	
Are Vegetation 🗸 , Soil 🗸	, or Hydrology	_		Circui	mstances" present?	Yes O No 💿
Are Vegetation , Soil	, or Hydrology	naturally problematic?	(If needed, e	explaii	n any answers in Rei	marks.)
Summary of Findings - At			int location	ıs, tı	ansects, impo	rtant features, etc.
Hydrophytic Vegetation Present?	Yes O No O					
Hydric Soil Present?	Yes O No 🗨		Sampled Area	Yes (	○ No ●	
Wetland Hydrology Present?	Yes O No 🗨	) within	a Wetland?			
Remarks: active agricultural field and mainta	ained transmission	line ROW.				
Hydrology						
Wetland Hydrology Indicators:				Secon	dary Indicators (minim	num of two required)
Primary Indicators (minimum of or	ne required; check a	all that apply)		Sı	urface Soil Cracks (B6)	
Surface Water (A1)		rue Aquatic Plants (B14)		S <sub>I</sub>	parsely Vegetated Cond	cave Surface (B8)
High Water Table (A2)		lydrogen Sulfide Odor (C1)			rainage Patterns (B10)	
Saturation (A3)		Oxidized Rhizospheres along Living F	Roots (C3)		oss Trim Lines (B16)	
Water Marks (B1)		resence of Reduced Iron (C4)			ry Season Water Table	(C2)
Sediment Deposits (B2)		ecent Iron Reduction in Tilled Soils	(C6)		rayfish Burrows (C8)	
Drift deposits (B3)		hin Muck Surface (C7)			aturation Visible on Aer	. , , ,
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)	□ 0	Other (Explain in Remarks)		_	unted or Stressed Plan	` '
Inundation Visible on Aerial Imager	n/ (R7)				eomorphic Position (D2 nallow Aquitard (D3)	.)
Water-Stained Leaves (B9)	y ( <i>b</i> 7)				icrotopographic Relief (	(D4)
Aquatic Fauna (B13)					AC-neutral Test (D5)	(PT)
Field Observations:					AC ficultar fest (D3)	
Surface Water Present? Yes	No 💿	Depth (inches):				
Water Table Present? Yes	No 💿	Depth (inches):				
Saturation Present?  (includes capillant frings)  Yes		Depth (inches):	Wetland Hydro	ology	Present? Yes	○ No •
(includes capillary fringe)  Describe Recorded Data (stream ga			ections), if availa	able:		
Remarks:						

# Upland 45 **VEGETATION** (Five/Four Strata)- Use scientific names of plants.

		-Species?	
(Diet size)	Absolute % Cover	Rel Strat Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)			Number of Dominant Species
1		0.0%	That are OBL, FACW, or FAC:1(A)
2		0.0%	Total Number of Dominant
3			Species Across All Strata:3(B)
4		0.0%	Percent of dominant Species
5		0.0%	That Are OBL, FACW, or FAC: 33.3% (A/B)
5		0.0%	
7	_	0.0%	Prevalence Index worksheet:
3			Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	=	= Total Cover	OBL species
1		0.0%	FACW species x 2 =
2		0.0%	FAC species $0 \times 3 = 0$
3		0.0%	FACU species $10 \times 4 = 40$
4		0.0%	UPL species $\frac{10}{x}$ x 5 = $\frac{50}{x}$
5		0.0%	Column Totals: 30 (A) 110 (B)
5.		0.0%	Prevalence Index = B/A = 3.667
7		0.0%	
3		0.0%	Hydrophytic Vegetation Indicators:
9	_	0.0%	Rapid Test for Hydrophytic Vegetation
)		0.0%	Dominance Test is > 50%
		= Total Cover	Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)			Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1		0.0%	Problematic Hydrophytic Vegetation 1 (Explain)
2		0.0%	
3		0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1			
5		0.0%	Definition of Vegetation Strata:
5			Four Vegetation Strata:  Tree stratum – Consists of woody plants, excluding vines, 3
7			in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: <u>5'</u> )	=	= Total Cover	regardless of height.
1 Phalaris arundinacea	10	<b>✓</b> 33.3% FACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Taraxacum officinale	10	<b>✓</b> 33.3% FACU	Herb stratum – Consists of all herbaceous (non-woody)
3. Plantago lanceolata	10	<b>✓</b> 33.3% UPL	plants, regardless of size, and all other plants less than 3.28
4	0		ft tall. Woody vines – Consists of all woody vines greater than 3.28 ft in height.
5	0		it in neight.
5	0		Five Vegetation Strata:
7	0	0.0%	Tree - Woody plants, excluding woody vines, approximately
3		0.0%	20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9			diameter at breast height (DBH).
)	_	0.0%	Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
1.	0	0.0%	less than 3 in. (7.6 cm) DBH.
2.	0	0.0%	Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.
Noody Vine Stratum (Plot size:)	30=	= Total Cover	Herb stratum – Consists of all herbaceous (non-woody)
1	0	0.0%	plants, including herbaceous vines, regardless of size, and
		0.0%	woody species, except woody vines, less than approximately 3 ft (1 m) in height.
2		0.0%	Woody vines – Consists of all woody vines, regardless of
3		0.0%	height.
4		0.0%	
5			Hydrophytic
_	0		Vegetation Present? Yes No •
5	0 :	= Total Cover	Present? Yes V No V

Soil Sampling Point: UPL-W-CMS-01

Profile Descr		the depth				nfirm the	absence of indicators.)	
Depth Matrix						Tandonia	Damada	
(inches) 0-10	<b>Color (moist)</b> 10YR 6/3	<b>%</b> 80	Color (moist) 10YR 7/4	<b>%</b> 20	Tvpe 1	M	Texture Clay Loam	Remarks
	10110 0/3						Clay Loani	
				-				
							1	
1 Type: C=Con	centration D-Depletion	on PM-Pedi	Iced Matrix CS-Cove	red or Coat	ted Sand Gr	aine 21 oc	ation: PL=Pore Lining. M=N	Matrix
Hydric Soil I		on. Kin-Keut	iced Matrix, C3=Cove	red or coar	teu Sanu Gi	allis -Loca		
Histosol (			Dark Surface (	(S7)			Indicators for Proble	-
	pedon (A2)		Polyvalue Belo	. ,	(S8) (MI RA	147.148)	2 cm Muck (A10)	(MLRA 147)
Black Hist			☐ Thin Dark Surf				Coast Prairie Redo	ox (A16)
	Sulfide (A4)		Loamy Gleyed			- /	(MLRA 147,148)	
Stratified	Layers (A5)		Depleted Matr		•		Piedmont Floodpl (MLRA 136, 147)	ain Soils (F19)
2 cm Muc	k (A10) (LRR N)		Redox Dark Su				Very Shallow Dar	k Surface (TF12)
Depleted	Below Dark Surface (A	\11)	Depleted Dark	Surface (F	7)		Other (Explain in	
☐ Thick Dar	k Surface (A12)		Redox Depres	sions (F8)			Outer (Explain in	remarkoj
Sandy Mu MLRA 147	ıck Mineral (S1) (LRR I 7, 148)	N,	Iron-Mangane MLRA 136)	se Masses	(F12) (LRR	N,		
Sandy Gle	eyed Matrix (S4)		Umbric Surfac	e (F13) (M	LRA 136, 12	22)	3	
Sandy Re	dox (S5)		Piedmont Floo	dplain Soil	s (F19) (ML	RA 148)	Indicators of wetland hyd	hydrophytic vegetation and Irology must be present,
Stripped N	Matrix (S6)		Red Parent Ma	aterial (F21	.) (MLRA 12	7, 147)		sturbed or problematic.
Restrictive I	ayer (if observed):							
Type: _rc								
Depth (inc							Hydric Soil Present?	Yes O No 💿
Remarks:								
remarkor								

vvetland	45	Rater(s): C.STALL	LONE, R. MASSA	Date:	2/12/201
	1 1	Metric 1. Wetland Area (size).	W-CMS-001 PEM		
		` ′	W-CIVIS-0011 LIVI		
max 6 pts	subtotal	Select one size class and assign score.			
		>50 acres (>20.2ha) (6 pts)	0.13 acres		
		25 to <50 acres (10.1 to <20.2ha) (5 pts)			
		10 to <25 acres (4 to <10.1ha) (4 pts)			
		3 to <10 acres (1.2 to <4ha) (3 pts)			
		0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)			
		<0.1 acres (0.04 to <0.121ta) (1 pt)			
	3 4	Metric 2. Upland buffers and s	urrounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only	one and assign score. Do not double check		
		WIDE. Buffers average 50m (164ft) or more around	nd wetland perimeter (7)		
		MEDIUM. Buffers average 25m to <50m (82 to <1			
		NARROW. Buffers average 10m to <25m (32ft to			
		x VERY NARROW. Buffers average <10m (<32ft) a	around wetland perimeter (0)		
		2b. Intensity of surrounding land use. Select o			
		VERY LOW. 2nd growth or older forest, prairie, s			
		LOW. Old field (>10 years), shrubland, young sed X MODERATELY HIGH. Residential, fenced pastur		()	
		HIGH. Urban, industrial, open pasture, row cropp		,	
	8.0 12	Metric 3. Hydrology.	, , , , , , , , , , , , , , , , , , ,		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.	3b. Connectivity. Score all that app	alv	
max so pis.	Subtotal	High pH groundwater (5)	100 year floodplain (1)	ny.	
		x Other groundwater (3)	Between stream/lake and other huma	an use (1)	
		x Precipitation (1)	Part of wetland/upland (e.g. forest), o		
		Seasonal/Intermittent surface water (3)	Part of riparian or upland corridor (1)		
		Perennial surface water (lake or stream) (5)	3d. Duration inundation/saturation		
		3c. Maximum water depth. Select one.	Semi- to permanently inundated/satu	rated (4)	
		>0.7 (27.6in) (3)	Regularly inundated/saturated (3)		
		0.4 to 0.7m (15.7 to 27.6in) (2)	x Seasonally inundated (2)		
		x <0.4m (<15.7in) (1)	Seasonally saturated in upper 30cm	(12in) (1)	
		3e. Modifications to natural hydrologic regime			
		None or none apparent (12) Recovered (7)	Check all disturbances observed	source (nonstormwater)	
		Recovering (3)		grading	
		x Recent or no recovery (1)		bed/RR track	
			weir dredg	jing	
			stormwater input X Other	r: TIRE RUTS	
	4 16	Metric 4. Habitat Alteration and	l Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double	le check and average.		
		None or none apparent (4)			
		Recovered (3)			
		Recovering (2) x Recent or no recovery (1)			
		4b. Habitat development. Select only one and	assign score		
		Excellent (7)	assign score.		
		Very good (6)			
		Good (5)			
		Moderately good (4)			
		Fair (3)			
		x Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Score one or double che	eck and average		
		None or none apparent (9)	Check all disturbances observed		
		Recovered (6)		sapling removal	
		Recovering (3)		aceous/aquatic bed removal	
		x Recent or no recovery (1)	X clearcutting sedim	nentation	
			selective cutting dredg		
			woody debris removal x farmir		
	- 44	ត	toxic pollutants nutrie	ent enrichment	
	16				
	subtotal this	s page ORAM v. 5.0 Field Form Quantitative Rating			

wetland 45 | W-CMS-001 PEM\_Field 3/8/2019

Site: W-CMS-001 PEM	Rater(s): C.STALLON	ΝE,	R. MASSA	Date:	2/12/2019
16			W-CMS-001 PEM		
subtotal this page					
0 16 Metric 5. Spo	ecial Wetlands.				
max 10 pts. subtotal Check all that a	apply and score as indicat	ted.			
Bog (10)					
Fen (10) Old growth forest (1	0)				
Mature forested wet					
	butary wetland-unrestricted hydro		10)		
	butary wetland-restricted hydrolog airies (Oak Openings) (10)	jy (5)			
Relict Wet Praires (					
	state/federal threatened or endang				
	y songbird/water fowl habitat or us I. See Question 5 Qualitative Ratir				
			ersion, microtopography.		
	getation Communities.	- 1	Vegetation Community Cove	er Scale	
Score all present us	•	0	Absent or comprises <0.1ha (0.2471 a		
Aquatic bed		1	Present and either comprises small pa	rt of wetland's 1	
1 Emergent			vegetation and is of moderate quality,	or comprises a	
Shrub Forest		2	significant part but is of low quality  Present and either comprises significal	nt part of wetland's 2	
Mudflats			vegetation and is of moderate quality of		
Open water			part and is of high quality	or more of wetlendle ?	
OtherOther	n view) Interspersion.	3	Present and comprises significant part vegetation and is of high quality	, or more, or welland's 3	
Select only one.	,,				
High (5)			Narrative Description of Vegetation		
Moderately high(4) Moderate (3)			Low spp diversity and/or predominance disturbance tolerant native species	e of nonnative or low	
Moderately low (2)			Native spp are dominant component of	the vegetation, mod	
x Low (1)			although nonnative and/or disturbance		
None (0)	vasive plants. Refer		can also be present, and species diver moderately high, but generallyw/o pres		
Table 1 ORAM long			threatened or endangered spp to	51100 01 1410	
or deduct points for			A predominance of native species, with		
x Extensive >75% co			and/or disturbance tolerant native spp absent, and high spp diversity and ofte		
Sparse 5-25% cove			the presence of rare, threatened, or en		
Nearly absent <5%	cover (0)				
Absent (1) 6d. Microtopograp	hv	٥	Mudflat and Open Water Class Quali Absent <0.1ha (0.247 acres)	ty	
Score all present us			Low 0.1 to <1ha (0.247 to 2.47 acres)		
1 Vegetated hummucl			Moderate 1 to <4ha (2.47 to 9.88 acres	3)	
Coarse woody debri Standing dead >25c		3	High 4ha (9.88 acres) or more		
Amphibian breeding			Microtopography Cover Scale		
<u> </u>			Absent		
		1	Present very small amounts or if more of marginal quality	common	
		2	Present in moderate amounts, but not	of highest	
Category 1			quality or in small amounts of highest o	quality	
14 GRAND TOTAL(max 100 p	ts)	3	Present in moderate or greater amount	s	
			and of highest quality		

wetland 45 | W-CMS-001 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 45

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing North



#### Wetland 45

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 45

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing South



#### Wetland 45

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 45

Date:

February 12, 2019

## **Description:**

PEM

Category 1

Soil Pit



## Wetland 46

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

Project/Site: Carrollton_Gable		City/County: Carroll	Sampling Date: 12-Feb-19
Applicant/Owner: AEP		State: OH	Sampling Point: W-CMS-02
Investigator(s): CMS, RM		Section, Township, Range: S	19 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, et	tc.): Swale	Local relief (concave, convex, r	none): hummocky Slope: 20.0% / 11.3 °
Subregion (LRR or MLRA):	N 124	 Lat.: 40.476794 Lon	ng.: -80.937246 Datum: NAD83
Soil Map Unit Name: WmD -			NWI classification: NA
Are climatic/hydrologic conditi	ions on the site typical for this	time of year? Yes $lacktriangle$ No $lacktriangle$ (If no,	explain in Remarks.)
Are Vegetation, Soil			Circumstances" present? Yes O No
Are Vegetation, Soil	, or Hydrology 🗸 n	aturally problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings		owing sampling point location	ns, transects, important features, etc.
Hydrophytic Vegetation Prese			
Hydric Soil Present?	Yes   No	Is the Sampled Area	Yes   No
Wetland Hydrology Present?	Yes   No	within a Wetland?	1.00 - 1.00 -
Remarks:			
		5. Snow melt and heavy rain contributed	
Hydrology			
Wetland Hydrology Indicator	s:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum	n of one required; check all tha	t apply)	Surface Soil Cracks (B6)
Surface Water (A1)	True Ac	uatic Plants (B14)	Sparsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)		en Sulfide Odor (C1)	✓ Drainage Patterns (B10)
Saturation (A3)		d Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		e of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
☐ Drift deposits (B3)☐ Algal Mat or Crust (B4)		ick Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	☐ Other (	Explain in Remarks)	
Inundation Visible on Aerial	Imagery (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	imagery ( <i>br</i> )		✓ Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present?	<b>fes</b> No   Depth	(inches):1	
Water Table Present?	res   No   Depth	(inches): 8	
Saturation Present?		(inches): 6	rology Present? Yes   No
(includes capillary fringe)		rial photos, previous inspections), if avail	lablo
Describe Recorded Data (Stre	ani gauge, monitoring well, ae	riai priotos, previous irispections), ii avaii	able:
Remarks:			
	ischarge and snow melt contril	outed to hydrology evident at time of san	onling
Trecipitation, ground water a	ischarge and show mere contin	dica to flyarology evident at time of san	ipinig.

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

Mapositive   Map			-Species?	Sampling Point: W-CMS-02
1			Rel.Strat. Indicator	Dominance Test worksheet:
1.	Tree Stratum (Plot size:)	% Cover	Cover Status	Number of Deminant Cassics
2.	1	0	0.0%	
3			0.0%	( )
1				l
Second				Species Across All Strata:(B)
That Are CRIL, FRACW, or FAC: 100.09% (A/B)				Porcent of deminant Species
6	5			
8	6	0		111007110 032,1710117, 01 17101
Sapling-Sapling/Shrub Stratum   Plot size:     0	7	0	0.0%	Prevalence Index worksheet:
Sapling-Sapling/Shrub Stratum   (Plot stree   )   0	8	0	0.0%	Total % Cover of: Multiply by:
Sapling/Shrub Stratum   Plot size:		. 0 =	= Total Cover	OBL species 0 x 1 = 0
1	Sapling-Sapling/Shrub Stratum (Plot size:	_)		
2	1	0		
3.	2	0		
4.			0.0%	
5.			0.0%	UPL species $\frac{0}{x}$ x 5 = $\frac{0}{x}$
6	5	0	0.0%	Column Totals: <u>97</u> (A) <u>208</u> (B)
7.     0     0.0%		_	0.0%	Prevalence Index = $R/\Delta$ = 2.144
Note			0.0%	· ———
9.				
O.   O.   O.   O.   O.   O.   O.   O.				
Shrub Stratum   (Plot size:     )				
Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)	0			✓ Prevalence Index is ≤3.0 <sup>1</sup>
2	Shrub Stratum (Plot size:)		= Total Cover	
1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	1	0		
3.	2	0	0.0%	☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
4.			0.0%	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
5.			0.0%	be present, unless disturbed or problematic.
6.			0.0%	Definition of Vegetation Strata:
Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub stratum - Consists of woody plants, excluding vines, 1 in. (7.6 cm) or more in height and 3 in. (7.6 cm) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Tree stratum - Consists of woody plants, excluding vines, 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling/shrub stratum - Consists of all woody vines preater than 3.28 ft in height.  Five Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20 ft (ft om) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (ft om) or more in height and less than 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling/shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (ft om) or more in height and less than 3 in. (7.6 cm) or larger in diameter at breast height (DBH).  Sapling/shrub stratum - Consists of woody vines, approximately 20 ft (ft om) or larger in diameter at breast height (DBH).  Sapling/shrub stratum - Consists of woody vines, approximately 20 ft (ft om) or larger in diameter at breast height (DBH).  Sapling/shrub stratum - Consists of woody vines, approximately 20 ft (ft om) or m				_
Herb Stratum   (Plot size: 5'   )				
Sapling/shrub stratum - Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.   Symphyotrichum laterifforum   5   5.2% FACW				
1. Agrostis glagantea 2. Poa palustris 2. Poa palustris 3. Setaria pumila 4. Symphyotrichum lateriflorum 5. Persicaria pensylvanica 6. Alliaria petiolata 7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 1.	Herb Stratum (Plot size: _5' )			
2 Symphyotrichum lateriflorum 2 Symphyotrichum lateriflorum 5 S.2% FACW 5 Persicaria pensylvanica 5 S.2% FACW 6 Alliaria petiolata 7 O 0.0% 8 O 0.0% 9 O 0.0% 1 O 0.0% 2 O 0.0% 1 O 0.0% 2 O 0.0% 3 Protal Cover Potal Exercise (Plot size: ) O 0.0% 2 O 0.0% 3 Shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 2 Shrub stratum - Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH. 3 Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 4 Shrub stratum - Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height. 5 Shrub stratum - Consists of woody vines, approximately 3 ft (1 m) in height. 5 Shrub stratum - Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height. 6 Alliaria petiolata 7 FACU 7 FACU 8 O 0.0% 9 O 0.0%	1. Agrostis gigantea	50	✓ 51.5% FACW	
3. Setaria pumilia 4. Symphyotrichum lateriflorum 5. S.2% FACW 5. Persicaria pensylvanica 6. Alliaria petiolata 7. 0 0.0% 8. 0 0.0% 9. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 2 0.0% 14. 0 0.0% 15. 2 0 0.0% 16. m leight.  17. 0 0.0% 18. 0 0.0% 19. 0 0.0% 19. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 2 0 0.0% 14. 0 0.0% 15. 2 0 0.0% 16. m leight and 3 in. (7.6 cm) or larger in diameter at breast height (DBH). 18. 2 0 0.0% 19. 0 0.0% 19. 0 0.0% 10. 0 0.0% 11. 0 0.0% 12. 0 0.0% 13. 0 0.0% 14. 0 0.0% 15. 0 0.0% 16. m lor more in height and less than 3 in. (7.6 cm) or more in height and less than 3 in. (7.6 cm) DBH. 18. 0 0.0% 19.	2. Poa palustris	25	<b>✓</b> 25.8% FACW	
5 Persicaria pensylvanica 5   5.2% FACW 6 Alliaria petiolata 2   2.1% FACU 7.	3. Setaria pumila	10	☐ 10.3% FAC	
5 Persicaria pensylvanica 5   5.2% FACW 6 Alliaria petiolata 2   2.1% FACU 7.	4 Symphyotrichum lateriflorum	5	5.2% FACW	Woody vines – Consists of all woody vines greater than 3.28
6. Alliaria petiolata  2	F. Developele person harries		5.2% FACW	ft in height.
7.	O Alle to collect		2.1% FACU	
8.	•			Five Vegetation Strata:
9.				
9. Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.  2. O O.0%  Woody Vine Stratum  (Plot size: )  1. O O.0%  97 = Total Cover  0 O.0%  1. O O.0%  1. O O.0%  1. O O.0%  2. O O.0%  2. O O.0%  3. O O.0%  4. O O.0%				, , , , , , , , , , , , , , , , , , , ,
1	9			- , ,
2. Shrub stratum – Consists of woody plants, excluding woody vines, approximately 3 to 20 ft (1 to 6 m) in height.  Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately 3 ft (1 m) in height.  3. 0 0.0% Woody vines – Consists of all woody vines, regardless of height.  5. 0 0.0% Hydrophytic				woody vines, approximately 20 ft (6 m) or more in height and
Woody Vine Stratum (Plot size:)  1		0		` '
Woody Vine Stratum     (Plot size:	2	0		
1		97 =	= Total Cover	, , , ,
2.		0	0.0%	plants, including herbaceous vines, regardless of size, and
3				
4	2			, , ,
5				
S. ————   Hydrophytic				
	5			Hydrophytic
U	6	0		Vegetation No. 10
0 = Total Cover Present? Yes NO		0	= Total Cover	Present? 165 © NO C

Soil Sampling Point: W-CMS-02

Depth	Matrix			Redox Feati				
(inches)	Color (moist)		Color (moist)	%	Tvpe 1	Loc2	Texture	Remarks
0-8	10YR 5/1	60	10YR 6/1	40	D	M	Clay Loam	
8-18	10YR 6/1		10YR5/2	30	C	M	Clay Loam	
							-	
				_				
		on. RM=Red	uced Matrix, CS=Cov	vered or Coa	ted Sand Gr	ains <sup>2</sup> Loc	ation: PL=Pore Lining. M=M	atrix
dric Soil 1 Histosol (	Indicators: (A1)		☐ Dark Surface	e (S7)			Indicators for Proble	-
Histic Epi	pedon (A2)		Polyvalue Be	low Surface			2 cm Muck (A10) ( Coast Prairie Redo	
Black Hist Hydrogen	tic (A3) n Sulfide (A4)		☐ Thin Dark Si☐ Loamy Gleye			148)	(MLRA 147,148)	
	Layers (A5)		✓ Depleted Ma		-/		Piedmont Floodpla (MLRA 136, 147)	in Soils (F19)
	ck (A10) (LRR N)	A11\	Redox Dark Depleted Da	, ,			Very Shallow Dark	
	Below Dark Surface (Ark Surface (A12)	411)	Redox Depre		1)		Other (Explain in F	Remarks)
Sandy Mu MLRA 147	uck Mineral (S1) (LRR 7, 148)	N,	☐ Iron-Mangar MLRA 136)	nese Masses	(F12) (LRR	N,		
	eyed Matrix (S4)		Umbric Surf				3 Indiantors of h	ydrophytic vegetation and
Sandy Re	edox (S5) Matrix (S6)		Piedmont Fl	oodplain Soil Material (F21			wetland hydi	nydrophytic vegetation and rology must be present, turbed or problematic.
			Reu Parent	riatellal (F21	L) (ITILKA 12	,, <u>1</u> 7/)	uriless dist	tarbed or problematic.
Type:	ayer (if observed):							
Depth (inc	ches):						Hydric Soil Present?	Yes   No
emarks:								

Upland 46, 47

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

Project/Site: Carrollton_Gable		City/County: Carroll	Sampling Date: 12-Feb-19
Applicant/Owner: AEP		State: O	H Sampling Point: UPL-W-CMS-028
Investigator(s): CMS, RM		Section, Township, Range: 9	<b>5</b> 19 <b>T</b> 12N <b>R</b> 4W
Landform (hillslope, terrace, etc.):	Gulch or Gully	Local relief (concave, convex,	none): flat
Subregion (LRR or MLRA): N 124		 Lat.: 40.476391 Lo	ng.: -80.937012
Soil Map Unit Name: WmD - West			NWI classification: NA
Are climatic/hydrologic conditions of	on the site typical for this	time of year? Yes   No   (If no	o, explain in Remarks.)
Are Vegetation $\checkmark$ , Soil $\checkmark$	, or Hydrology 🗸 🤘	ignificantly disturbed? Are "Norma	ıl Circumstances" present? Yes ○ No ●
Are Vegetation , Soil .	, or Hydrology 🔲 r	naturally problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - A		owing sampling point location	ons, transects, important features, e
Hydrophytic Vegetation Present?	Yes O No •		
Hydric Soil Present?	Yes O No 💿	Is the Sampled Area	Yes ○ No ●
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	
Remarks:			
Maintained transmission line ROW	l and active agricultural f	ield.	
Wetland Hydrology Indicators: Primary Indicators (minimum of o	one required; check all the	at apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)		quatic Plants (B14)	☐ Surface Soil Cracks (B6) ☐ Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)		en Sulfide Odor (C1)	Drainage Patterns (B10)
Saturation (A3)		d Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)
Water Marks (B1)		te of Reduced Iron (C4)	Dry Season Water Table (C2)
Sediment Deposits (B2)		Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift deposits (B3)		uck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		Explain in Remarks)	Stunted or Stressed Plants (D1)
☐ Iron Deposits (B5)		Explain in Remarks)	Geomorphic Position (D2)
☐ Inundation Visible on Aerial Image	erv (B7)		Shallow Aquitard (D3)
Water-Stained Leaves (B9)	, ()		Microtopographic Relief (D4)
Aquatic Fauna (B13)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No O Depth	(inches):	
Water Table Present? Yes	○ <b>No</b>	(inches):	
Saturation Present?  (includes capillary frings)  Yes		Wetland Hyon (inches):	Irology Present? Yes ○ No •
(includes capillary fringe)		erial photos, previous inspections), if ava	ilable:
Remarks:			

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

Tree Stratum (Plot size: )	0	Re	0.0% 0.0% 0.0%	Indicator Status	Dominance Test worksheet:  Number of Dominant Species That are OBL, FACW, or FAC:  Total Number of Dominant  O(A)
1	0 0 0 0 0		0.0% 0.0% 0.0%	Status	That are OBL, FACW, or FAC:(A)
2	0 0 0 0		0.0%		That are OBL, FACW, or FAC:(A)
2	0 0 0 0		0.0%		
3			0.0%		Total Number of Dominant
4	0 0 0				
5	0		0.0%		Species Across All Strata: (B)
5	0				
6	0	_	0.0%		Percent of dominant Species
7 8	0		0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)
8		$\Box$	0.0%		Prevalence Index worksheet:
	_				
			0.0%		Total % Cover of: Multiply by:
(Plot size:	0 :	= To	otal Cove	r	OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:)					FACW species 0 x 2 = 0
1	0		0.0%		FAC species $10 \times 3 = 30$
2	0		0.0%		· — —
3	0		0.0%		FACU species $\underline{60}$ x 4 = $\underline{240}$
4	0		0.0%		UPL species $0 \times 5 = 0$
			-		Column Totals:70 (A)270 (B)
5			0.0%		Column locals: 70 (A) 270
6	0	$\square$	0.0%		Prevalence Index = $B/A = 3.857$
7	0		0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		
		$\overline{\Box}$	0.0%		Rapid Test for Hydrophytic Vegetation
9					☐ Dominance Test is > 50%
0	0	Ш	0.0%		Prevalence Index is ≤3.0 ¹
Shrub Stratum (Plot size:)	0 :	= To	otal Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
		$\Box$			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2			0.0%		
3	0	Ш	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4	0		0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
		$\overline{\Box}$	0.0%		Four Vegetation Strata:
6					Tree stratum – Consists of woody plants, excluding vines, 3
7	0		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: _5' )	0 :	= To	otal Cove	r	regardless of height.
4	30	<b>v</b>	40.0%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding
		<b>V</b>			vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Trifolium pratense	30		40.0%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Digitaria ciliaris	5		6.7%	FAC	
4. Rumex crispus	5		6.7%	FAC	ft tall. Woody vines – Consists of all woody vines greater than 3.28
5. Plantago lanceolata	0		0.0%	UPL	ft in height.
6	0		0.0%		
			-		Five Vegetation Strata:
7	5		6.7%		Tree - Woody plants, excluding woody vines, approximately
8	0	$\Box$	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in
9	0		0.0%		diameter at breast height (DBH).
0	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and
1	0	$\bar{\Box}$	0.0%		less than 3 in. (7.6 cm) DBH.
		$\Box$			Shrub stratum – Consists of woody plants, excluding woody
2	0	Ш	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	75:	= To	otal Cove	r	Herb stratum – Consists of all herbaceous (non-woody)
1	0		0.0%		plants, including herbaceous vines, regardless of size, and
					woody species, except woody vines, less than approximately
2			0.0%		3 ft (1 m) in height.
3	0	$\Box$	0.0%		Woody vines – Consists of all woody vines, regardless of
4	0		0.0%		height.
5	0		0.0%		
			0.0%		Hydrophytic
6		Ш			Vegetation Present? Yes ○ No ●
	0	= T	otal Cove	er	Tradelli

Soil Sampling Point: UPL-W-CMS-02&3

Depth   Matrix   Redox Features   Color (moist)   % Color (moist)   % Ivoe   Texture   Remarks
0-8 10YR 5/2 100 Clay Loam    Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains
1 Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2 Location: PL=Pore Lining. M=Matrix  Hydric Soil Indicators: Histosol (At) Histo Epipedon (A2) Black Histic (A3) Thin Dark Surface (S8) (MLRA 147,148) Hydriogen Sulfide (A4) Stratified Layers (A5) Depleted Matrix (F2) Depleted Patrix (F3) Caset Prairie Redox (A16) (MLRA 147,148) Piedmont Floodplain Soils (F19) (MLRA 147,148) Piedmont Floodplain Soils (F19) (MLRA 147,148) Piedmont Floodplain in Remarks)  Tinon-Manganese Masses (F12) (LRR N, MLRA 137, 148) Sandy Muck Mineral (S1) (LRR N) MLRA 136, 122) Sandy Mecko Mineral (S1) (LRR N) MLRA 136, 122) Depleted Matrix (S4) MLRA 136, 122) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F2.1) (MLRA 127, 147)  Restrictive Layer (if observed): Type:rock  Type:rock  Thick Dark Surface (Matrix (S4) Type:rock  Trype:rock  Indicators of Problematic Hydric Soils³: Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Hydric Soil Indicators:    Histosol (A1)
Hydric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Zem Muck (A10) (LRR N)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Type: _rock  Indicators for Problematic Hydric Soils <sup>3</sup> :  1
Hydric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Zem Muck (A10) (LRR N)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Redox Depressions (F8)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Type: _rock  Indicators for Problematic Hydric Soils <sup>3</sup> :  1
Hydric Soil Indicators:    Histosol (A1)
Hydric Soil Indicators:  Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Z cm Muck (A10) (MRRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A12)  Redox Depressions (F8)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Depleted Relow (A16)  (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Restrictive Layer (if observed):  Type: _rock  This coil Propert A Material (F21) (MLRA 127, 147)
Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Stratified Layers (A5)  Depleted Matrix (F3)  Z cm Muck (A10) (LRR N)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Depleted Dark Surface (F7)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Other (Explain in Remarks)  **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.*  **Restrictive Layer (if observed):**  Type: _rock  **Indicators of Policiant Typic Surface (S7)    2 cm Muck (A10) (MLRA 147)   2 cm Muck (A10) (MLRA 147, 148)    (MLRA 147, 148)    (MLRA 147, 148)    (MLRA 136, 147)    (MLRA 136, 147
Histic Epipedon (A2)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147,148)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Polyvalue Below Surface (S9) (MLRA 147,148)  Loamy Gleyed Matrix (F2)  Depleted Matrix (F2)  Depleted Matrix (F3)  Depleted Dark Surface (F6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Umbric Surface (F13) (MLRA 136, 122)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Were Sail Present Sail Pre
□ Black Histic (A3)       □ Thin Dark Surface (S9) (MLRA 147, 148)       □ Coast Prairie Redox (A16) (MLRA 147, 148)         □ Hydrogen Sulfide (A4)       □ Loamy Gleyed Matrix (F2)       □ Piedmont Floodplain Soils (F19) (MLRA 136, 147)         □ Stratified Layers (A5)       □ Depleted Matrix (F3)       □ MLRA 136, 147)         □ 2 cm Muck (A10) (LRR N)       □ Redox Dark Surface (F6)       □ Very Shallow Dark Surface (TF12)         □ Depleted Below Dark Surface (A11)       □ Depleted Dark Surface (F7)       □ Other (Explain in Remarks)         □ Thick Dark Surface (A12)       □ Redox Depressions (F8)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □ Umbric Surface (F13) (MLRA 136, 122)         □ Sandy Gleyed Matrix (S4)       □ Umbric Surface (F13) (MLRA 136, 122)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)         □ Stripped Matrix (S6)       □ Red Parent Material (F21) (MLRA 127, 147)     **Audicia Seil Breacet?*  **Wester Seil Brea
Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type: _rock
Stratified Layers (A5)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Depleted Dark Surface (F13) (MLRA 136, 122)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type: _rock  Muck (A10) (LRR N)  Redox Depleted Matrix (F3)  Other (Explain in Remarks)  Other (Explain in Remarks)  A Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
2 cm Muck (A10) (LRR N)  □ Depleted Below Dark Surface (A11) □ Depleted Below Dark Surface (A11) □ Thick Dark Surface (A12) □ Sandy Muck Mineral (S1) (LRR N, MLRA 136) □ Sandy Gleyed Matrix (S4) □ Sandy Redox (S5) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 148) □ Stripped Matrix (S6) □ Red Parent Material (F21) (MLRA 127, 147) □ Very Shallow Dark Surface (TF12) □ Other (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remarks) □ Other (Explain in Remarks) □ Ala (Explain in Remarks) □ Other (Explain in Remark
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Restrictive Layer (if observed):  Type: _rock    Other (Explain in Remarks)
Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F12) (MLRA 127, 147)  Redox Depressions (F8)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type: _rock  Under (Explain in Remarks)  Under (Explain in Remarks)  I ron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Wetland hydrology must be present, unless disturbed or problematic.
Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Restrictive Layer (if observed):  Type: _rock  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Welsia Sail Bracent 2 - May December 2 - May De
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type: _rock  Hudric Scil Brocont3
Sandy Redox (S5)  Stripped Matrix (S6)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type: _rock
Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type: _rock  Hudric Scil Procent2 - Vec No
Restrictive Layer (if observed):  Type: _rock
Type: _rock
Type: _rock
Depth (inches): 8 Hydric Soil Present? Yes No •
Remarks:

Wetland 46	Rater(s): C.STALL	LONE, R. MASSA	Date: 2/12/2	JΊ
0	0 Metric 1. Wetland Area (size).	W-CMS-002 PEM		
	` ′	W 01110 002 1 E111		
max 6 pts subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts)  25 to <50 acres (10.1 to <20.2ha) (5 pts)	0.03 acres		
	10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts)			
	0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) x <0.1 acres (0.04ha) (0 pts)			
1	1 Metric 2. Upland buffers and su	urrounding land use.		
max 14 pts. subtotal	2a. Calculate average buffer width. Select only WIDE. Buffers average 50m (164ft) or more arour	nd wetland perimeter (7)		
	MEDIUM. Buffers average 25m to <50m (82 to <1 NARROW. Buffers average 10m to <25m (32ft to	<82ft) around wetland perimeter (1)		
	x VERY NARROW. Buffers average <10m (<32ft) a  2b. Intensity of surrounding land use. Select o	one or double check and average.		
	VERY LOW. 2nd growth or older forest, prairie, sa LOW. Old field (>10 years), shrubland, young sec MODERATELY HIGH. Residential, fenced pasture.	cond growth forest. (5)	)	
40.01	X HIGH. Urban, industrial, open pasture, row croppi	ing, mining, construction. (1)		
	Metric 3. Hydrology.			
max 30 pts. subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5)	3b. Connectivity. Score all that app 100 year floodplain (1)	oly.	
	x Other groundwater (3)	Between stream/lake and other huma		
	x Precipitation (1) Seasonal/Intermittent surface water (3)	Part of wetland/upland (e.g. forest), on Part of riparian or upland corridor (1)		
	Perennial surface water (lake or stream) (5)	3d. Duration inundation/saturation	. Score one or dbl check.	
	3c. Maximum water depth. Select one.	Semi- to permanently inundated/satu Regularly inundated/saturated (3)	rated (4)	
	0.4 to 0.7m (15.7 to 27.6in) (2)	x Seasonally inundated (2)		
	x <0.4m (<15.7in) (1)  3e. Modifications to natural hydrologic regime	Seasonally saturated in upper 30cm	(12in) (1)	
	None or none apparent (12)	Check all disturbances observed		
	Recovered (7)		source (nonstormwater)	
	x Recovering (3) Recent or no recovery (1)		/grading bed/RR track	
		weir dredg	ging	
	_	stormwater input Other	*	
	Metric 4. Habitat Alteration and	•		
max 20 pts. subtotal	4a. Substrate disturbance. Score one or doubl  None or none apparent (4)	e check and average.		
	Recovered (3)			
	x Recovering (2) Recent or no recovery (1)			
	4b. Habitat development. Select only one and	assign score.		
	Excellent (7) Very good (6)			
	Good (5)			
	Moderately good (4)			
	Fair (3)  x Poor to fair (2)			
	Poor (1)			
	4c. Habitat alteration. Score one or double che None or none apparent (9)	Check all disturbances observed		
	Recovered (6)		/sapling removal	
	x Recovering (3) Recent or no recovery (1)		aceous/aquatic bed removal nentation	
		selective cutting dredg	jing	
		woody debris removal farmir toxic pollutants nutrie	ng ent enrichment	
1	18			
	this page ORAM v. 5.0 Field Form Quantitative Rating			

wetland 46 | W-CMS-002 PEM\_Field 3/8/2019

Site: W-CMS-00	2 PEM	Rater(s): C.STALLON	ΙE,	R. MASSA	Date:	2/12/2019
	18			W-CMS-002 PEM		
subt	total this page	Metric 5. Special Wetlands.				
	ototal	Check all that apply and score as indicat Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang Significant migratory songbird/water fowl habitat or use	ogy ( y (5) ered	species (10)		
		Category 1 Wetland. See Question 5 Qualitative Ratin				
4	22	Metric 6. Plant communities, inter	spe	ersion, microtopography.		
max 20pts. sub	total	6a. Wetland Vegetation Communities.		Vegetation Community Cove		
		Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
	1	Aquatic bed	1	Present and either comprises small pa vegetation and is of moderate quality,		
	<u> </u>	Emergent Shrub		significant part but is of low quality	or comprises a	
		Forest	2	Present and either comprises significal	nt part of wetland's 2	
		Mudflats		vegetation and is of moderate quality of		
		Open water		part and is of high quality		
		Other	3	Present and comprises significant part	, or more, of wetland's 3	
		6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality		
		High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species		
		Moderately low (2)		Native spp are dominant component of		
	Х	Low (1)		although nonnative and/or disturbance		
		None (0)  6c. Coverage of invasive plants. Refer		can also be present, and species diver moderately high, but generallyw/o pres		
		Table 1 ORAM long form for list. Add		threatened or endangered spp to	erice of fare	
		or deduct points for coverage		A predominance of native species, with	n nonnative spp high	
		Extensive >75% cover (-5)		and/or disturbance tolerant native spp		
		Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
	<u> </u>	Sparse 5-25% cover (-1) Nearly absent <5% cover (0)		the presence of rare, threatened, or en	dangered spp	
	x	Absent (1)		Mudflat and Open Water Class Quali	tv	
	_ ^	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)	•,	
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)		
	1	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
	-	Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more		
	-	Standing dead >25cm (10in) dbh Amphibian breeding pools		Microtopography Cover Scale		
		1t	0	Absent		
				Present very small amounts or if more	common	
			_	of marginal quality	-f Link4	
Category 1			2	Present in moderate amounts, but not quality or in small amounts of highest of		
Category 1	DAND TO	TAL (may 400 mta)	2			
22 GI	KAND IC	OTAL(max 100 pts)	3	Present in moderate or greater amount	S	
				and of highest quality		

wetland 46 | W-CMS-002 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 46

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing North



#### Wetland 46

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 46

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing South



#### Wetland 46

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

Client Name: Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

#### Wetland 46

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Soil Pit



## Wetland 47

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

Project/Site: Carrollton_Gabl	e	City/Cour	ty: Carroll		Sampli	ing Date: 12-Feb-19
Applicant/Owner: AEP			State: 0	Н	Sampling Poi	nt: W-CMS-03
Investigator(s): CMS, RM		Section,	Township, Range: S	<b>5</b> 19	<b>T</b> 12N	R 4W
Landform (hillslope, terrace,	etc.): Swale	Local relief	(concave, convex,	none):	hummocky	Slope: _15.0%_ / 8.5 °
Subregion (LRR or MLRA):	N 124	<b>Lat.:</b> 40.476167	, Lo	ng.: -{	80.936804	Datum: NAD83
Soil Map Unit Name: WmD		octon silt loams, 15 to 25 perce		_	NWI classification:	
Are climatic/hydrologic condi	tions on the site typic	al for this time of year? Yes	● No ○ (If no	o, expla	in in Remarks.)	
Are Vegetation, Soil				l Circu	mstances" present?	? Yes O No 💿
Are Vegetation, Soil	, or Hydrology	naturally problematic	? (If needed,	explai	n any answers in Ro	emarks.)
Summary of Finding	s - Attach site n	nap showing sampling	point locatio	ns, t	ransects, imp	ortant features, etc.
Hydrophytic Vegetation Pres		o 🔾				
Hydric Soil Present?		_	the Sampled Area	Yes (	● No ○	
Wetland Hydrology Present?	? Yes ● N	o O	thin a Wetland?			
Remarks:						
PEM Wetiand Within Swale.	Snow melt and neavy	rain contributed to hydrology i	ndicators.			
Hydrology						
Wetland Hydrology Indicato	rs:			Secor	ndary Indicators (mini	mum of two required)
Primary Indicators (minimu	m of one required; ch	eck all that apply)		S	urface Soil Cracks (B6	5)
Surface Water (A1)	[	True Aquatic Plants (B14)		S	parsely Vegetated Cor	ncave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Odor (C1)			rainage Patterns (B10	
Saturation (A3)	Ĺ	Oxidized Rhizospheres along Li	ving Roots (C3)		loss Trim Lines (B16)	
Water Marks (B1)	L	Presence of Reduced Iron (C4)			ry Season Water Tabl	e (C2)
Sediment Deposits (B2)	L	Recent Iron Reduction in Tilled	Soils (C6)		rayfish Burrows (C8)	. 17 (00)
Drift deposits (B3)	L	Thin Muck Surface (C7)			aturation Visible on A	
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)	L	Other (Explain in Remarks)			tunted or Stressed Pla	` '
Inundation Visible on Aeria	ıl Imagen/ (B7)				ieomorphic Position (E hallow Aquitard (D3)	J2)
Water-Stained Leaves (B9)	3 , ( )				licrotopographic Relie	f (D4)
Aquatic Fauna (B13)					AC-neutral Test (D5)	(D <del>1</del> )
Field Observations:				<u> </u>	Ac ficultur rest (D3)	
	Yes O No 💿	Depth (inches):				
Water Table Present?	Yes   No	Depth (inches): 12				
	Yes   No	Depth (inches): 6	Wetland Hyd	Irology	Present? Yes	No
(includes capillary ininge)		ng well, aerial photos, previous	incrections) if ava	ilahlo:		
Describe Recorded Data (sti	eam gauge, monitorii	ig weil, aeriai priotos, previous	irispections), ii ava	liable.		
Remarks:						
Precipitation, ground water	discharge and snow n	nelt contributed to hydrology e	vident at time of sa	mpling.		
	J	, 3,				

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

		_Sn	ecies? -		
(Diet sie e.	Absolute	Re	l.Strat.	Indicator Status	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Co		Status	Number of Dominant Species
1	0	Н-	0.0%		That are OBL, FACW, or FAC:3(A)
2		Н_	0.0%		Total Number of Dominant
3		Н-	0.0%		Species Across All Strata:3(B)
4		Н-	0.0%		Parcent of deminant Charles
5		Ц-	0.0%		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6		Ц.	0.0%		
7		Ц_	0.0%		Prevalence Index worksheet:
8		$\square_{\underline{}}$	0.0%		Total % Cover of: Multiply by:
Sapling-Sapling/Shrub Stratum (Plot size:	) :	= To	tal Cove	r	OBL species 0 x 1 = 0
	_ ′		0.0%		FACW species $80 \times 2 = 160$
1			0.0%		FAC species $0 \times 3 = 0$
2			0.0%		FACU species $\frac{10}{10}$ x 4 = $\frac{40}{10}$
3			0.0%		UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$
4		$\Box$	0.0%		Column Totals:95 (A)225 (B)
5		_	0.0%		
6		Η-	0.0%		Prevalence Index = B/A = 2.368
7		Η-			Hydrophytic Vegetation Indicators:
8		Η-	0.0%		Rapid Test for Hydrophytic Vegetation
9		Н-	0.0%		✓ Dominance Test is > 50%
0	_	Ш_	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	0:	= To	tal Cove	r	☐ Morphological Adaptations ¹ (Provide supporting
1	0		0.0%		data in Remarks or on a separate sheet)
2	0		0.0%		☐ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3			0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4			0.0%		be present, unless disturbed or problematic.
5	0		0.0%		Definition of Vegetation Strata:
6			0.0%		Four Vegetation Strata:
7			0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
Herb Stratum (Plot size: 5' )		= To	tal Cove	r	in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
	30	<b>~</b>	31.6%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding
1. Phalaris arundinacea		<u> </u>	26.3%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
2. Poa palustris			26.3%	FACW	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28
3. Persicaria pensylvanica		_	5.3%	FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
4. Trifolium pratense		П-	5.3%	UPL	ft in height.
5. Lysimachia arvensis		_	5.3%	FACU	
6. Prunella vulgaris		_	0.0%	TACO	Five Vegetation Strata:
7		П-			Tree - Woody plants, excluding woody vines, approximately
8		<b>⊢</b> -	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9		H-	0.0%		Sapling stratum – Consists of woody plants, excluding
0		H-	0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.
1		Н-	0.0%		Shrub stratum – Consists of woody plants, excluding woody
2	0	ш_ <b>т</b>	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)	95 :	= 10	tal Cove	r	Herb stratum - Consists of all herbaceous (non-woody)
1	0	$\square$ _	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
3	0		0.0%		Woody vines – Consists of all woody vines, regardless of
4.	0		0.0%		height.
5			0.0%		
6.			0.0%		Hydrophytic Vegetation
		_			
·-		= To	tal Cove	r	Present? Yes V NO V

Soil Sampling Point: W-CMS-03

Total Color (moist)	(inches) Color (moist) % Color (moist) % Type Loc2 Texture Rema	rks
ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix  ydric Soil Indicators:   Histosol (A1)	0-18	
dric Soil Indicators:  Histosol (A1)		
dric Soil Indicators:  Histosol (A1)		
Histosol (A1)		
Histosol (A1)		
Indicators:    Histosol (A1)		
Histosol (A1)		
Indicators:    Histosol (A1)		
Histosol (A1)		
dric Soil Indicators:  Histosol (A1)		
Indicators:    Histosol (A1)		
Indicators:    Histosol (A1)		
Histosol (A1)		
Histosol (A1)    Dark Surface (S7)   Histic Epipedon (A2)   Polyvalue Below Surface (S8) (MLRA 147,148)   Black Histic (A3)   Thin Dark Surface (S9) (MLRA 147, 148)   Hydrogen Sulfide (A4)   Loamy Gleyed Matrix (F2)   Stratified Layers (A5)   Depleted Matrix (F3)   Depleted Matrix (F3)   Depleted Below Dark Surface (A11)   Depleted Dark Surface (F6)   Depleted Below Dark Surface (A11)   Depleted Dark Surface (F7)   Other (Explain in Remarks)   Other (Explain in Remarks)   Other (Explain of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.   Strictive Layer (if observed):   Type:	pe: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains <sup>2</sup> Location: PL=Pore Lining. M=Matrix	
Histosol (A1)    Dark Surface (S7)   Histic Epipedon (A2)   Polyvalue Below Surface (S8) (MLRA 147,148)   Dark Surface (S9) (MLRA 147,148)   Dark Surface (S9) (MLRA 147,148)   Dark Surface (S9) (MLRA 147,148)   Coast Prairie Redox (A16) (MLRA 147,148)   Coast Prairie Redox (A16) (MLRA 147,148)   Dark Surface (S9) (MLRA 147,148)   Dark Surface (S9) (MLRA 147,148)   Dark Surface (A16) (MLRA 147,148)   Piedmont Floodplain Soils (F19) (MLRA 136, 147)   Dark Surface (A10) (LRR N)   Dark Surface (A11)   Depleted Dark Surface (F6)   Depleted Below Dark Surface (A11)   Depleted Dark Surface (F7)   Depleted Below Dark Surface (A12)   Redox Depressions (F8)   Sandy Muck Mineral (S1) (LRR N, MLRA 136)   Sandy Gleyed Matrix (S4)   Umbric Surface (F13) (MLRA 136, 122)   Sandy Redox (S5)   Piedmont Floodplain Soils (F19) (MLRA 148)   Stripped Matrix (S6)   Red Parent Material (F21) (MLRA 127, 147)   All Carlos of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.   Coast Prairie Redox (A16) (MLRA 147)   Octave (MLRA 147,148)   Depleted Dark Surface (F19) (MLRA 136, 147)   Deplete	dric Soil Indicators:	Soils <sup>3</sup> :
Histic Epipedon (A2)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147,148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Layers (A5)  Pepleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Tron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Hydric Soil Present?  Yes  No	Historol (A1)	50115 1
Hydrogen Sulfide (A4)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Matrix (F2)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Depleted Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Depleted Dark Surface (F13) (MLRA 148)  Fiedmont Floodplain Soils (F19)  (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Piedmont Floodplain in Remarks)  Other (Explain in Remarks)  Type:  Type:  Hydric Soil Present?  Yes  No	Histic Epipedon (A2)	
Hydrogen Sulfide (A4)  Stratified Layers (A5)  Z cm Muck (A10) (LRR N)  Depleted Matrix (F3)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Depleted Dark Surface (F13) (MLRA 136, 122)  Sandy Redox (S5)  Red Parent Material (F21) (MLRA 127, 147)  Depth (inches):  Hydric Soil Present?  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  Other (Explain in Remarks)  Stripped Matrix (S4)  J Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.		
Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Redox Dark Surface (F6)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Depleted Matrix (F3)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)  Other (Explain in Remarks)  Tron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Find Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Stripped Matrix (S6)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Depth (inches):  Type:  Depth (inches):  Hydric Soil Present? Yes No	Hydrogen Sulfide (M)	
Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Depleted Dark Surface (F7)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Strictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes  No	Stratified Layers (A5)  Depleted Matrix (F3)  (MLRA 136, 147)	
Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Sandy Redox (S5)  Stripped Matrix (S6)  Piedmont Floodplain Soils (F19) (MLRA 127, 147)  Strictive Layer (if observed):  Type:  Depth (inches):  Type:  Depth (inches):  Seriod Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Sitrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No	Total contract Contra	2)
Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Depth (inches):  Liron-Manganese Masses (F12) (LRR N, MLRA 136, 122)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148)  Piedmont Floodplain Soils (F19) (MLRA 148)  Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes No	Other (Explain in Remarks)	
MLRA 136) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Serictive Layer (if observed):  Type: Depth (inches):  MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Piedmont Floodplain Soils (F19) (MLRA 148) Piedmont Floodplain Soils (F19) (MLRA 148) Wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes No		
Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Strictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes  No		
Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)	Sandy Gleyed Matrix (S4)  Umbric Surface (F13) (MLRA 136, 122)	
Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147) unless disturbed or problematic.  Strictive Layer (if observed):  Type:	Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Indicators of hydrophytic veg wetland hydrology must be	jetation and present,
Type:		
Type:	estrictive Laver (if observed):	
Depth (inches): Hydric Soil Present? Yes No O		
	Hudria Sail Brosont3 Voc 🔴	No 🔾
marks:		
	mars.	

Upland 46, 47

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

Project/Site: Carrollton_Gable		City/County: Carroll	Sampling	<b>Date:</b> 12-Feb-19
Applicant/Owner: AEP		State: C	H Sampling Point:	UPL-W-CMS-02&3
Investigator(s): CMS, RM		Section, Township, Range:	<b>T</b> 12N	R 4W
Landform (hillslope, terrace, etc.):	Gulch or Gully	Local relief (concave, convex,	none): flat SI	ope: 25.0% / <sub>14.0</sub> °
Subregion (LRR or MLRA): N 124		 Lat.: 40.476391 Lo	ng.: -80.937012	Datum: NAD83
Soil Map Unit Name: WmD - West			NWI classification:	IA .
Are climatic/hydrologic conditions of	on the site typical for this	stime of year? Yes $lacktriangle$ No $lacktriangle$ (If $oldsymbol{n}_{i}$	o, explain in Remarks.)	
Are Vegetation $\checkmark$ , Soil $\checkmark$	, or Hydrology 🗸 🤨	significantly disturbed? Are "Norma	l Circumstances" present?	Yes O No 💿
Are Vegetation . , Soil .	, or Hydrology	naturally problematic? (If needed	explain any answers in Rem	arks.)
Summary of Findings - A		owing sampling point location	ns, transects, impor	tant features, etc.
Hydrophytic Vegetation Present?	Yes O No •			
Hydric Soil Present?	Yes O No •	Is the Sampled Area	Yes ○ No ●	
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?		
Remarks:				
Maintained transmission line ROW	l and active agricultural f	îeld.		
 Hydrology				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of o	ne required; check all th	at annly)	Secondary Indicators (minimum	m of two required)
Surface Water (A1)		quatic Plants (B14)	<ul><li>Surface Soil Cracks (B6)</li><li>Sparsely Vegetated Concar</li></ul>	ve Surface (B8)
High Water Table (A2)		gen Sulfide Odor (C1)	Drainage Patterns (B10)	ve surface (Bo)
Saturation (A3)		ed Rhizospheres along Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1)		ce of Reduced Iron (C4)	Dry Season Water Table (	C2)
Sediment Deposits (B2)		Iron Reduction in Tilled Soils (C6)	Crayfish Burrows (C8)	,
Drift deposits (B3)		uck Surface (C7)	Saturation Visible on Aeria	l Imagery (C9)
Algal Mat or Crust (B4)		(Explain in Remarks)	Stunted or Stressed Plants	,
☐ Iron Deposits (B5)	Ouler (	Explain in Kemarks)	Geomorphic Position (D2)	(22)
☐ Inundation Visible on Aerial Image	ery (B7)		Shallow Aquitard (D3)	
Water-Stained Leaves (B9)	, ,		☐ Microtopographic Relief (D	94)
Aquatic Fauna (B13)			FAC-neutral Test (D5)	,
Field Observations:				
Surface Water Present? Yes	No O Depti	n (inches):		
Water Table Present? Yes	No O Depti	n (inches):		
Saturation Present?  (includes capillary fringe)  Yes		Wetland Hydroches):	Irology Present? Yes	No •
(includes capillary fringe)  Describe Recorded Data (stream g.	auge, monitoring well, a	erial photos, previous inspections), if ava	ilable:	
Remarks:				

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

	0 0 0 0	Re	0.0% 0.0%	Indicator Status	Number of Dominant Species That are OBL, FACW, or FAC:	
1	0 0 0 0 0		0.0% 0.0% 0.0%	Status	That are OBL, FACW, or FAC:(A)	
2	0 0 0 0		0.0%		That are OBL, FACW, or FAC:(A)	
2	0 0 0 0		0.0%			
3	0 0 0 0		0.0%		Total Number of Deminant	
4	0 0 0				Total Number of Dominant	
5	0				Species Across All Strata: (B)	
5	0		0.0%			
6 7	0		0.0%		Percent of dominant Species	
7			0.0%		That Are OBL, FACW, or FAC: 0.0% (A/B)	
	0	$\Box$	0.0%		Prevalence Index worksheet:	
8						
			0.0%		Total % Cover of: Multiply by:	
Olot size:	0 :	= To	otal Cove	r	OBL species 0 x 1 = 0	
Sapling-Sapling/Shrub Stratum (Plot size:)					FACW species 0 x 2 = 0	
1	0		0.0%		FAC species $10 \times 3 = 30$	
2	0		0.0%		· — —	
3	0		0.0%		FACU species $\underline{60}$ x 4 = $\underline{240}$	
4	0		0.0%		UPL species $0 \times 5 = 0$	
			-		Column Totals:70 (A)270 (B)	
5			0.0%		Column locals: 70 (A) 270	
6	0	Ш	0.0%		Prevalence Index = $B/A = 3.857$	
7	0		0.0%		Hydrophytic Vegetation Indicators:	
8			0.0%			
		$\overline{\Box}$	0.0%		Rapid Test for Hydrophytic Vegetation	
9					☐ Dominance Test is > 50%	
0	0	Ш	0.0%		Prevalence Index is ≤3.0 ¹	
Shrub Stratum (Plot size:)	0 :	= To	otal Cove	r	Morphological Adaptations <sup>1</sup> (Provide supporting	
1	0		0.0%		data in Remarks or on a separate sheet)	
		$\Box$			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
2			0.0%			
3	0	Ш	0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
4	0		0.0%		be present, unless disturbed or problematic.	
5	0		0.0%		Definition of Vegetation Strata:	
		$\overline{\Box}$	0.0%		Four Vegetation Strata:	
6					Tree stratum – Consists of woody plants, excluding vines, 3	
7	0		0.0%		in. (7.6 cm) or more in diameter at breast height (DBH),	
Herb Stratum (Plot size: 5' )	0 :	= To	otal Cove	r	regardless of height.	
4	30	<b>v</b>	40.0%	FACU	Sapling/shrub stratum – Consists of woody plants, excluding	
		<b>V</b>			vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
2. Trifolium pratense	30		40.0%	FACU	Herb stratum – Consists of all herbaceous (non-woody) plants, regardless of size, and all other plants less than 3.28	
3. Digitaria ciliaris	5		6.7%	FAC		
4. Rumex crispus	5		6.7%	FAC	ft tall. Woody vines – Consists of all woody vines greater than 3.28	
5. Plantago lanceolata	0		0.0%	UPL	ft in height.	
6	0		0.0%			
			-		Five Vegetation Strata:	
7	5		6.7%		Tree - Woody plants, excluding woody vines, approximately	
8	0	$\Box$	0.0%		20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in	
9	0		0.0%		diameter at breast height (DBH).	
0	0		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and	
1	0	$\bar{\Box}$	0.0%		less than 3 in. (7.6 cm) DBH.	
		$\Box$			Shrub stratum – Consists of woody plants, excluding woody	
2	0	Ш	0.0%		vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Woody Vine Stratum (Plot size:)	75 :	= To	otal Cove	r	Herb stratum – Consists of all herbaceous (non-woody)	
1	0		0.0%		plants, including herbaceous vines, regardless of size, and	
					woody species, except woody vines, less than approximately	
2	0		0.0%		3 ft (1 m) in height.	
3	0	$\Box$	0.0%		Woody vines – Consists of all woody vines, regardless of	
4	0		0.0%		height.	
5	0		0.0%			
			0.0%		Hydrophytic	
6		Ш			Vegetation Present? Yes ○ No ●	
	0	= T	otal Cove	er		

Soil Sampling Point: UPL-W-CMS-02&3

Depth	Matrix	•		dox Featu			absence of indicators.)			
(inches)	Color (moist)	%	Color (moist)	wox reacu	Tvpe <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-8	10YR 5/2	100	COIOI (IIIOISE)	,,,	1100	200	Clay Loam	Remarks		
							,			
							,			
Type: C=Cond	centration. D=Depletio	n. RM=Redu	ced Matrix, CS=Cover	ed or Coate	ed Sand Gra	ains <sup>2</sup> Loca	ation: PL=Pore Lining. M=N	1atrix		
lydric Soil I	ndicators:						Indicators for Proble	ematic Hydric Soils <sup>3</sup> :		
Histosol (A	,		Dark Surface (	•			2 cm Muck (A10)	(MLRA 147)		
Histic Epip			Polyvalue Belo				Coast Prairie Redo			
Black Histi	` ,		Thin Dark Surf		LRA 147, 1	48)	(MLRA 147,148)	V (UIO)		
_	Sulfide (A4)		Loamy Gleyed				☐ Piedmont Floodpl	ain Soils (F19)		
_	Layers (A5)		Depleted Matri				(MLRA 136, 147)	. ,		
☐ 2 cm Muck	k (A10) (LRR N)		Redox Dark Su	` ,			Very Shallow Dark	c Surface (TF12)		
Depleted F	Below Dark Surface (A	11)	Depleted Dark Surface (F7)				Other (Explain in Remarks)			
Thick Dark	k Surface (A12)		Redox Depress	. ,						
Sandy Mud MLRA 147	ck Mineral (S1) (LRR N ', 148)	l,	Iron-Manganes MLRA 136)							
Sandy Gle	yed Matrix (S4)		Umbric Surface	e (F13) (ML	RA 136, 12	2)	3 - 11 - 6			
Sandy Rec	dox (S5)		Piedmont Floo	dplain Soils	(F19) (MLI	RA 148)	Indicators of wetland hyd	hydrophytic vegetation and lrology must be present,		
Stripped M	Matrix (S6)		Red Parent Ma	iterial (F21)	(MLRA 12	7, 147)		sturbed or problematic.		
	ayer (if observed):									
lestrictive La										
Type: <u>ro</u>	rck						Hydric Soil Present?	Yes O No 💿		
Type: <u>ro</u>										
Type: <u>ro</u>										
Type: <u>ro</u>										
Type: <u>ro</u>										
Type: <u>ro</u>										
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Type: <u>ro</u>										

	Rater(s): C.STALLONI	E, R. MASSA	Date:	2/12/201
4 4 1	de A Middle ed A er e (et e)	W 0440 000 DEM		
1 1 Met	ric 1. Wetland Area (size).	W-CMS-003 PEM		
max 6 pts subtotal Select	t one size class and assign score.			
	cres (>20.2ha) (6 pts)	0.22 acres		
	<50 acres (10.1 to <20.2ha) (5 pts) <25 acres (4 to <10.1ha) (4 pts)			
	10 acres (1.2 to <4ha) (3 pts)			
	<3 acres (0.12 to <1.2ha) (2pts)			
	<0.3 acres (0.04 to <0.12ha) (1 pt) acres (0.04ha) (0 pts)			
	ric 2. Upland buffers and surro	unding land use.		
	alculate average buffer width. Select only one a	•		
	. Buffers average 50m (164ft) or more around wet	-		
	UM. Buffers average 25m to <50m (82 to <164ft) a			
	ROW. Buffers average 10m to <25m (32ft to <82ft)  NARROW. Buffers average <10m (<32ft) around			
	tensity of surrounding land use. Select one or	. , ,		
VERY	LOW. 2nd growth or older forest, prairie, savanna	ah, wildlife area, etc. (7)		
	Old field (>10 years), shrubland, young second g			
	ERATELY HIGH. Residential, fenced pasture, part . Urban, industrial, open pasture, row cropping, mi		1	
		ming, construction. (1)		
	ric 3. Hydrology.			
·	ources of Water. Score all that apply.	3b. Connectivity. Score all that app	ly.	
	pH groundwater (5) groundwater (3)	100 year floodplain (1)  Between stream/lake and other huma	un uce (1)	
	pitation (1)	Part of wetland/upland (e.g. forest), c		
	onal/Intermittent surface water (3)	Part of riparian or upland corridor (1)		
	nial surface water (lake or stream) (5) aximum water depth. Select one.	3d. Duration inundation/saturation.  Semi- to permanently inundated/saturation.		
	27.6in) (3)	Regularly inundated/saturated (3)	aled (4)	
0.4 to	0.7m (15.7 to 27.6in) (2)	x Seasonally inundated (2)		
	(<15.7in) (1)	Seasonally saturated in upper 30cm (	(12in) (1)	
	odifications to natural hydrologic regime. Scor or none apparent (12)	Check all disturbances observed		
Recov	vered (7)	ditch point	source (nonstormwater)	
	vering (3)		/grading bed/RR track	
X Recen	nt or no recovery (1)	weir dredg		
			: soil compaction	
3 10 Met	ric 4. Habitat Alteration and De	velopment.		
max 20 pts. subtotal <b>4a. Su</b>	ubstrate disturbance. Score one or double che	ck and average.		
	or none apparent (4)			
	vered (3) vering (2)			
	nt or no recovery (1)			
	abitat development. Select only one and assign	n score.		
	ent (7) good (6)			
Good				
	rately good (4)			
Fair (3	3) o fair (2)			
x Poor (				
	abitat alteration. Score one or double check an			
	or none apparent (9) vered (6)	Check all disturbances observed mowing shrub.	/sapling removal	
	vering (3)		ceous/aquatic bed remova	ıl
	nt or no recovery (1)	clearcutting sedim	nentation	
	ļ-	selective cutting dredg woody debris removal x farmir		
	ŀ		nt enrichment	
10	<u> -</u>			
subtotal this page ORAN	/I v. 5.0 Field Form Quantitative Rating			

wetland 47 | W-CMS-003 PEM\_Field 3/8/2019

Site: W-C	MS-003 PE	M Rater(s): C.STALLO	ΝE,	R. MASSA	Date:	2/12/2019
	10			W-CMS-003 PEM		
	subtotal this p	Metric 5. Special Wetlands.				
max 10 pts.	subtotal	Check all that apply and score as indica  Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang Significant migratory songbird/water fowl habitat or us Category 1 Wetland. See Question 5 Qualitative Rati	llogy ( gy (5) gered sage ( ng (-1	(10) species (10) (10) 0)		
	0 10	Metric 6. Plant communities, intel	rsp			
max 20pts.	subtotal	6a. Wetland Vegetation Communities.  Score all present using 0 to 3 scale.	0	Vegetation Community Cove Absent or comprises <0.1ha (0.2471 a		
		Aquatic bed 1 Emergent	1	Present and either comprises small pa vegetation and is of moderate quality,	rt of wetland's 1	
		Shrub Forest	2	significant part but is of low quality  Present and either comprises significa	nt part of wetland's 2	
		Mudflats	2	vegetation and is of moderate quality of		
		Open water		part and is of high quality		
		Other	3	Present and comprises significant part	, or more, of wetland's 3	
		6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
	ı	Select only one. High (5)		Narrative Description of Vegetation	Quality	
		Moderately high(4)		Low spp diversity and/or predominance		
		Moderate (3)		disturbance tolerant native species	5 51 1151111da175 51 1511	
		Moderately low (2)		Native spp are dominant component of	the vegetation, mod	
		x Low (1)		although nonnative and/or disturbance	tolerant native spp	
		None (0)		can also be present, and species diver		
		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres	sence of rare	
		Table 1 ORAM long form for list. Add		threatened or endangered spp to		
	1	or deduct points for coverage  Extensive >75% cover (-5)		A predominance of native species, with and/or disturbance tolerant native spp		
		x Moderate 25-75% cover (-3) P. arundinacea		absent, and high spp diversity and ofter		
		Sparse 5-25% cover (-1)		the presence of rare, threatened, or en		
		Nearly absent <5% cover (0)				
		Absent (1)		Mudflat and Open Water Class Qual	ity	
	•	6d. Microtopography.	0	Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	3)	
		Coarse woody debris >15cm (6in)	3	High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh		Mississin and Company		
		Amphibian breeding pools	0	Microtopography Cover Scale Absent		
			1	Present very small amounts or if more	common	
			- 1	of marginal quality	COMMINUM	
			2	Present in moderate amounts, but not	of highest	
Category 1			_	quality or in small amounts of highest		
	10 GRAND	TOTAL(max 100 pts)	3	Present in moderate or greater amoun		
	IVORAND	I O I A E(III ax 100 pts)	5	i resent in moderate or greater amoun	LO .	
				and of highest quality		

wetland 47 | W-CMS-003 PEM\_Field 3/8/2019



WETLANDS

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 47

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing North



### Wetland 47

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 47

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing South



### Wetland 47

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 47

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Soil Pit



## Wetland 48

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

Project/Site: Carrollton_Gab	ole		City/County: Carroll		Sampling	<b>g Date:</b> 12-Feb-19
Applicant/Owner: AEP			State: 0	Н	Sampling Point	:: W-CMS-04
Investigator(s): CMS, RM			Section, Township, Range: S	19	<b>T</b> 12N	<b>R</b> 4W
Landform (hillslope, terrace,	etc.): Swale	L	ocal relief (concave, convex,	none):	hummocky <b>S</b>	Slope:3.0% /1.7 °
Subregion (LRR or MLRA):	N 124		40.475454 <b>Lo</b>	- ng.: -80.9		Datum: NAD83
Soil Map Unit Name: WmC					I classification:	
Are climatic/hydrologic cond	litions on the site typi	cal for this time of yea	$_{ m nr?}$ Yes $leftildoon$ No $lacksquare$ (If no	o, explain i	in Remarks.)	
Are Vegetation $\  \  \  \  \  \  \  $ , Soi				l Circumst	tances" present?	Yes O No 💿
Are Vegetation . , Soi	l 🗌 , or Hydrolog	gy 🔽 naturally pro	oblematic? (If needed,	explain ar	ny answers in Ren	narks.)
Summary of Finding			ampling point locatio	ns, trar	nsects, impo	rtant features, etc.
Hydrophytic Vegetation Pre		No 🔾				
Hydric Soil Present?		No O	Is the Sampled Area	Yes	No O	
Wetland Hydrology Present	<sub>t?</sub> Yes 🍥 I	No O	within a Wetland?			
Remarks:						
PEM wetland within swale.	Snow melt and heav	y rain contributed to h	ydrology indicators.			
Hydrology						
Wetland Hydrology Indicat	ors:			Secondar	v Indicators (minim	um of two required)
Primary Indicators (minimu		heck all that apply)			ice Soil Cracks (B6)	uni or two required)
✓ Surface Water (A1)		☐ True Aquatic Plants	(B14)		sely Vegetated Conc	ave Surface (B8)
✓ High Water Table (A2)		Hydrogen Sulfide Od	dor (C1)		nage Patterns (B10)	· ,
Saturation (A3)		_ ′ ′	res along Living Roots (C3)		Trim Lines (B16)	
Water Marks (B1)		Presence of Reduce	. ,		Season Water Table	(C2)
Sediment Deposits (B2)		Recent Iron Reducti	on in Tilled Soils (C6)	Crayf	fish Burrows (C8)	. ,
Drift deposits (B3)		☐ Thin Muck Surface (	C7)	Satur	ration Visible on Aeri	ial Imagery (C9)
Algal Mat or Crust (B4)		Other (Explain in Re	•	Stunt	ted or Stressed Plant	ts (D1)
☐ Iron Deposits (B5)			······································	<b>✓</b> Geom	norphic Position (D2)	)
☐ Inundation Visible on Aeri	al Imagery (B7)			Shallo	ow Aquitard (D3)	•
☐ Water-Stained Leaves (B9	')			Micro	otopographic Relief (	D4)
Aquatic Fauna (B13)					neutral Test (D5)	
Field Observations:						
Surface Water Present?	Yes   No	Depth (inches):	3			
Water Table Present?	Yes   No	Depth (inches):	0			
Saturation Present?	Yes   No	Depth (inches):	Wetland Hyd	Irology Pre	esent? Yes 🖲	No O
(includes capillary fringe)  Describe Recorded Data (st			, previous inspections), if ava	ilahle:		
Describe Recorded Data (St	ream gaage, monitor	ing well, dentil priotos,	, previous inspections), ii ava	nabic.		
Remarks:						
	discharge and snow	melt contributed to by	drology evident at time of sa	mnlina		
Tredpication, ground water	discharge and show	mere contributed to my	arology evident at time or sai	mpinig.		

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

		-Species?			
(Dlataine)	Absolute	Rel Strat	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species	
1	0			That are OBL, FACW, or FAC: (A)	
2				Total Number of Dominant	
3	0	0.0%		Species Across All Strata:	
4	0				
5	0	0.0%_		Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)	
6	0			That Are ODL, TACW, OF FAC.	
7	0	0.0%_		Prevalence Index worksheet:	
8	0	0.0%		Total % Cover of: Multiply by:	
Sapling-Sapling/Shrub Stratum (Plot size:	0 -	= Total Cove	r	OBL species <u>5</u> x 1 = <u>5</u>	
1.	0	0.0%		FACW species <u>80</u> x 2 = <u>160</u>	
2	0	0.0%		FAC species $\underline{15}$ x 3 = $\underline{45}$	
3		0.0%		FACU species $0 \times 4 = 0$	
4		0.0%		UPL species $0 \times 5 = 0$	
5		0.0%		Column Totals: 100 (A) 210 (B)	
6		0.0%			
		0.0%		Prevalence Index = B/A = 2.100	
7		0.0%		Hydrophytic Vegetation Indicators:	
8		0.0%		Rapid Test for Hydrophytic Vegetation	
9				✓ Dominance Test is > 50%	
0	_	0.0%		✓ Prevalence Index is ≤3.0 <sup>1</sup>	
Shrub Stratum (Plot size:)	0=	= Total Cove	r	☐ Morphological Adaptations <sup>1</sup> (Provide supporting	
1	0	0.0%_		data in Remarks or on a separate sheet)	
2	0	0.0%		Problematic Hydrophytic Vegetation (Explain)	
3		0.0%		<sup>1</sup> Indicators of hydric soil and wetland hydrology must	
4		0.0%		be present, unless disturbed or problematic.	
5	0	0.0%		Definition of Vegetation Strata:	
6		0.0%		Four Vegetation Strata:	
7		0.0%		Tree stratum – Consists of woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH),	
Herb Stratum (Plot size: 5' )		= Total Cove	r	regardless of height.	
1. Poa palustris	50	<b>✓</b> 50.0%	FACW	Sapling/shrub stratum – Consists of woody plants, excluding	
Epilobium coloratum		20.0%	FACW	vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.  Herb stratum – Consists of all herbaceous (non-woody)	
Phalaris arundinacea		10.0%	FACW	plants, regardless of size, and all other plants less than 3.28	
4. Juncus tenuis		10.0%	FAC	ft tall. Woody vines – Consists of all woody vines greater than 3.28	
5. Setaria pumila		5.0%	FAC	ft in height.	
6. Cardamine pensylvanica		5.0%	OBL		
7.		0.0%		Five Vegetation Strata:	
8		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in	
		0.0%		diameter at breast height (DBH).	
9		$\neg$		Sapling stratum – Consists of woody plants, excluding	
0		0.0%		woody vines, approximately 20 ft (6 m) or more in height and less than 3 in. (7.6 cm) DBH.	
1		0.0%		Shrub stratum – Consists of woody plants, excluding woody	
2				vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Woody Vine Stratum (Plot size:)	100=	= Total Cove	r	Herb stratum - Consists of all herbaceous (non-woody)	
1	0			plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately	
2	0	0.0%		3 ft (1 m) in height.	
3	0	0.0%_		Woody vines – Consists of all woody vines, regardless of	
4	0	0.0%		height.	
5		0.0%		Hudusahudia	
6.		0.0%		Hydrophytic Vegetation	
		T-1-1 C		Present? Yes No	
	0	= Total Cove	er i	*********	

Soil Sampling Point: W-CMS-04

Content	Profile Descr	ription: (Describe to	the depth	needed to docume	ent the ind	icator or co	nfirm the	absence of indicators.)	
0-8						ures			
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains									Remarks
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining. M=Matrix  Hydric Soil Indicators: Histosol (A1) Histos Epipedon (A2) Polyvalue Below Surface (S8) (MLRA 147,148) Black Histic (A3) Thin Dark Surface (S9) (MLRA 147, 148) Hydrogen Sulfide (A44) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Pelpeted Matrix (F3) Redox Dark Surface (F6) Pelpeted Bark Surface (F7) Thick Dark Surface (A11) Pelpeted Dark Surface (F7) Redox Depressions (F8) Sandy Muck Mineral (S1) (LRR N, MLRA 136) MIRA 147, 148) MIRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Peldmont Floodplain Soils (F19) (MLRA 148) Sandy Redox (S5) Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (If observed): Type: Depth (inches):  Hydric Soil Present? Yes No	0-8	7.5YR 4/1		7.5YR 5/4			M		
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo	8-16	10YR 6/3	60	10YR 6/4	40	_ <u>C</u>	M	Clay Loam	
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo								,	
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo	-	-						,	
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo									
Hydric Soil Indicators:  Histosol (A1)  Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Depleted Below Dark Surface (A11)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Med Parent Material (F21) (MLRA 147, 148)  Thick Dark Surface (S9) (MLRA 147, 148)  Depleted Dark Surface (F13) (MLRA 136, 147)  Depleted Selow Dark Surface (A12)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Indicators for Problematic Hydric Soils 3:  Indicators for Problematic Hydric Soils 4:  Indicators for Problematic Hydric Foot 4:  Indicators for Problematic Hydric Fo	1- 0.0								
Histosol (A1)  Dark Surface (S7)  Histic Epipedon (A2)  Polyvalue Below Surface (S8) (MLRA 147,148)  Black Histic (A3)  Thin Dark Surface (S9) (MLRA 147, 148)  Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  Depleted Dark Surface (F6)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A11)  Depleted Below Dark Surface (A12)  Redox Depressions (F8)  Thick Dark Surface (A12)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Other (Explain in Remarks)   3 Indicators 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			on. RM=Red	uced Matrix, CS=Cov	ered or Coa	ited Sand Gr	ains <sup>2</sup> Loc		
Histic Epipedon (A2)  □ Polyvalue Below Surface (S8) (MLRA 147,148) □ Black Histic (A3) □ Thin Dark Surface (S9) (MLRA 147, 148) □ Hydrogen Sulfide (A4) □ Loamy Gleyed Matrix (F2) □ Stratified Layers (A5) □ Depleted Matrix (F3) □ 2 cm Muck (A10) (LRR N) □ Depleted Below Dark Surface (F6) □ Depleted Below Dark Surface (A11) □ Depleted Dark Surface (F7) □ Thick Dark Surface (A12) □ Sandy Muck Mineral (S1) (LRR N, MLRA 147, 148) □ Sandy Gleyed Matrix (S4) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) □ Umbric Surface (F13) (MLRA 136, 122) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 148) □ Stripped Matrix (S6) □ Red Parent Material (F21) (MLRA 127, 147) □ Hydric Soil Present? Yes  ■ No □					(0=)			Indicators for Proble	ematic Hydric Soils <sup>3</sup> :
Black Histic (A3)       □ Thin Dark Surface (S9) (MLRA 147, 148)       □ Coast Prairie Redox (A16) (MLRA 147,148)         □ Hydrogen Sulfide (A4)       □ Loamy Gleyed Matrix (F2)       □ Piedmont Floodplain Soils (F19) (MLRA 136, 147)         □ 2 cm Muck (A10) (LRR N)       □ Redox Dark Surface (F6)       □ Very Shallow Dark Surface (TF12)         □ Depleted Below Dark Surface (A11)       □ Depleted Dark Surface (F7)       □ Other (Explain in Remarks)         □ Thick Dark Surface (A12)       □ Redox Depressions (F8)       □ Other (Explain in Remarks)         □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)       □ Umbric Surface (F13) (MLRA 136, 122)       □ And Coast Prairie Redox (A16) (MLRA 136, 147)         □ Sandy Gleyed Matrix (S4)       □ Umbric Surface (F6)       □ Other (Explain in Remarks)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)       □ And Coast Prairie Redox (A16) (MLRA 148)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)       □ And Coast Prairie Redox (A16) (MLRA 148)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)       □ And Coast Prairie Redox (A16) (MLRA 147, 148)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 148)       □ And Coast Prairie Redox (A16) (MLRA 147, 148)         □ Sandy Redox (S5)       □ Piedmont Floodplain Soils (F19) (MLRA 147, 148)       □ And Coast Prairie Redox (A12)         □ Sandy Redox (S6) <td< td=""><td></td><td>•</td><td></td><td></td><td>. ,</td><td>(CO) (MI DA</td><td>147 140)</td><td>2 cm Muck (A10)</td><td>(MLRA 147)</td></td<>		•			. ,	(CO) (MI DA	147 140)	2 cm Muck (A10)	(MLRA 147)
Hydrogen Sulfide (A4)  □ Loamy Gleyed Matrix (F2) □ Stratified Layers (A5) □ Depleted Matrix (F3) □ 2 cm Muck (A10) (LRR N) □ Depleted Below Dark Surface (A11) □ Depleted Dark Surface (F6) □ Depleted Dark Surface (F7) □ Depleted Below Dark Surface (A12) □ Redox Depressions (F8) □ Sandy Muck Mineral (S1) (LRR N, MLRA 136) □ Sandy Gleyed Matrix (S4) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) (MLRA 136, 147) □ Other (Explain in Remarks) □ Other (Explain in Remarks) □ Tinch Dark Surface (A12) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F12) (LRR N, MLRA 136, 122) □ Sandy Redox (S5) □ Piedmont Floodplain Soils (F19) □ MLRA 136, 147) □ Other (Explain in Remarks) □ Sindicators 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 ○									ox (A16)
Stratified Layers (A5)  □ Depleted Matrix (F3)  □ Redox Dark Surface (F6)  □ Depleted Below Dark Surface (A11)  □ Thick Dark Surface (A12)  □ Sandy Muck Mineral (S1) (LRR N, MLRA 136)  □ Sandy Gleyed Matrix (S4)  □ Sandy Redox (S5)  □ Stripped Matrix (S6)  □ Red Parent Material (F21) (MLRA 127, 147)  □ Pledmont Hoodplain Soils (F19) (MLRA 136, 147)  □ Very Shallow Dark Surface (TF12)  □ Other (Explain in Remarks)  □ Other							L-ru)		
2 cm Muck (A10) (LRR N)	_					<u> </u>			ain Soils (F19)
Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Cother (Explain in Remarks)  Thick Dark Surface (A12) Redox Depressions (F8) Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Piedmont Floodplain Soils (F19) (MLRA 148) Stripped Matrix (S6) Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed): Type: Depth (inches):  Hydric Soil Present? Yes No					. ,	)			Curface (TE12)
Thick Dark Surface (A12)  Redox Depressions (F8)  Iron-Manganese Masses (F12) (LRR N, MLRA 147, 148)  Sandy Muck Mineral (S1) (LRR N, MLRA 136)  Umbric Surface (F13) (MLRA 136, 122)  Sandy Redox (S5)  Piedmont Floodplain Soils (F19) (MLRA 148)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present? Yes No			A11)		` '	<b>,</b>			
□ Sandy Muck Mineral (S1) (LRR N, MLRA 136) □ Sandy Gleyed Matrix (S4) □ Sandy Redox (S5) □ Stripped Matrix (S6) □ Stripped Matrix (S6) □ Stripped Matrix (S6) □ Red Parent Material (F21) (MLRA 127, 147) □ Sestrictive Layer (if observed): □ Type: □ Depth (inches): □ Hydric Soil Present? Yes ● No □		,	111)			,		☐ Other (Explain in	Remarks)
MLRA 147, 148)  Sandy Gleyed Matrix (S4)  Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Hydric Soil Present?  Yes No		. ,	N,		nese Masses	(F12) (LRR	N,		
Sandy Redox (S5)  Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Type:  Depth (inches):  Piedmont Floodplain Soils (F19) (MLRA 128)  Piedmont Floodplain Soils (F19) (MLRA 148)  Red Parent Material (F21) (MLRA 127, 147)  Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.  Hydric Soil Present?  Yes  No	MLRÁ 147	7, 148)	•						
Stripped Matrix (S6)  Red Parent Material (F21) (MLRA 127, 147)  Restrictive Layer (if observed):  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Depth (inches):  Type:  Depth (inches):	Sandy Gle	eyed Matrix (S4)						3 Indicators of	hydrophytic vogotation and
Restrictive Layer (if observed):  Type: Depth (inches): Hydric Soil Present? Yes • No •								wetland hyd	Irology must be present,
Type:	Stripped I	Matrix (S6)		Red Parent	Material (F2:	1) (MLRA 12	7, 147)	unless dis	sturbed or problematic.
Type:	Restrictive L	ayer (if observed):							
Depth (mency)									
	Depth (inc	:hes):						Hydric Soil Present?	Yes 🏵 No 🔾

Upland 48

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

Project/Site: Carrollton_Gable		City/County: Carroll		Sampling D	<b>Pate:</b> 12-Feb-19
Applicant/Owner: AEP		State:	: OH	Sampling Point:	UPL-W-CMS-04
Investigator(s): CMS, RM		Section, Township, Rang	je: <b>S</b> 19	<b>T</b> 12N	R 4W
Landform (hillslope, terrace, etc.):	Hillside	Local relief (concave, conv	rex, none): f	lat Slo	pe: 3.0% / 1.7 °
Subregion (LRR or MLRA): N 124	1	Lat.: 40.475092	Long.: -80.93		Datum: NAD83
Soil Map Unit Name: WmC - West				classification: NA	_
Are climatic/hydrologic conditions of	on the site typical for this	s time of year? Yes $ullet$ No $igcirc$ (1	If no, explain in	Remarks.)	
Are Vegetation $lacksquare$ , Soil $lacksquare$			rmal Circumsta	nces" present?	Yes O No •
Are Vegetation , Soil .	, or Hydrology	naturally problematic? (If need	ded, explain any	y answers in Remai	rks.)
Summary of Findings - A		owing sampling point loca	tions, tran	sects, import	ant features, etc.
Hydrophytic Vegetation Present?	Yes O No O				
Hydric Soil Present?	Yes O No O	Is the Sampled Ar		10 <b>•</b>	
Wetland Hydrology Present?	Yes O No 💿	within a Wetland?	,		
Remarks:  Maintained transmission line ROW	1.				
Hydrology					
Wetland Hydrology Indicators:			Secondary	Indicators (minimum	of two required)
Primary Indicators (minimum of o	ne required; check all th	at apply)	_ Surface	e Soil Cracks (B6)	
Surface Water (A1)		quatic Plants (B14)		ely Vegetated Concave	e Surface (B8)
High Water Table (A2)		gen Sulfide Odor (C1)		ige Patterns (B10)	
Saturation (A3)		ed Rhizospheres along Living Roots (C3)		Frim Lines (B16)	
☐ Water Marks (B1) ☐ Sediment Deposits (B2)	_	ce of Reduced Iron (C4)		eason Water Table (C2	2)
Drift deposits (B3)		: Iron Reduction in Tilled Soils (C6)		sh Burrows (C8) Ition Visible on Aerial I	Imagany (CO)
Algal Mat or Crust (B4)		luck Surface (C7)		ed or Stressed Plants (	,
☐ Iron Deposits (B5)	U Other	(Explain in Remarks)		orphic Position (D2)	D1)
☐ Inundation Visible on Aerial Image	ery (B7)			w Aquitard (D3)	
Water-Stained Leaves (B9)	- / (			opographic Relief (D4	)
Aquatic Fauna (B13)				eutral Test (D5)	,
Field Observations:					
Surface Water Present? Yes	No O Dept	h (inches):			
Water Table Present? Yes	No O Dept	h (inches):			
Saturation Present? (includes capillary frings)  Yes		Wetland h (inches):	Hydrology Pres	sent? Yes	No •
(includes capillary fringe)		erial photos, previous inspections), if	available:		
D 1					
Remarks:					

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

Tree Stratum (Plot size:)	Absolute	Re	ecies? – el.Strat.	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: )					
Tree Structurii	% Cover	Co	ver	Status	1,, , ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
4	0		0.0%		Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
1		$\overline{\Box}$	0.0%		That are obt, racw, or rac.
2		$\square$			Total Number of Dominant
3	0	$\sqsubseteq$	0.0%		Species Across All Strata: 2 (B)
4	0	$\square$	0.0%		
5			0.0%		Percent of dominant Species
		$\Box$	0.0%		That Are OBL, FACW, or FAC: 50.0% (A/B)
6		$\overline{\Box}$	0.0%		
7		Η.			Prevalence Index worksheet:
8		Ш.	0.0%		Total % Cover of: Multiply by:
(Dlataine)	, _ 0 =	= To	tal Cover	•	OBL species 0 x 1 = 0
Sapling-Sapling/Shrub Stratum (Plot size:	/				FACW species 0 x 2 = 0
1	0	Ш,	0.0%		
2	0		0.0%		'
3	0		0.0%		FACU species $35 \times 4 = 140$
4		$\prod_{i=1}^{n}$	0.0%		UPL species $0 \times 5 = 0$
		$\Box$			Column Totals:70 (A)245 (B)
5			0.0%		Column locals (A) (7)
6	0	$\sqsubseteq$	0.0%		Prevalence Index = $B/A = \underline{3.500}$
7	0	Ш,	0.0%		Hydrophytic Vegetation Indicators:
8			0.0%		
9		$\Box$	0.0%		Rapid Test for Hydrophytic Vegetation
		Ξ.			☐ Dominance Test is > 50%
0		Ш.	0.0%		Prevalence Index is ≤3.0 <sup>1</sup>
Shrub Stratum (Plot size:)	=	= To	tal Cover	•	Morphological Adaptations <sup>1</sup> (Provide supporting
1	0	П	0.0%		data in Remarks or on a separate sheet)
		$\overline{\Box}$	0.0%		Problematic Hydrophytic Vegetation 1 (Explain)
2		Η.			
3		$\sqsubseteq$	0.0%		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4	0	$\square$	0.0%		be present, unless disturbed or problematic.
5			0.0%		Definition of Vegetation Strata:
6		$\Box$	0.0%		Four Vegetation Strata:
		$\overline{\Box}$	0.0%		Tree stratum – Consists of woody plants, excluding vines, 3
7		Ч.			in. (7.6 cm) or more in diameter at breast height (DBH),
Herb Stratum (Plot size: _5' )	=	= To	tal Cover	•	regardless of height.
1. Setaria palmifolia	30	<b>V</b>	40.0%	FAC	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
Trifolium pratense	20	<b>V</b>	26.7%	FACU	Herb stratum – Consists of all herbaceous (non-woody)
			13.3%		plants, regardless of size, and all other plants less than 3.28
3. Solidago canadensis		Η.		FACU	ft tall. Woody vines – Consists of all woody vines greater than 3.28
4. Rumex crispus	5	$\sqsubseteq$	6.7%	FAC	ft in height.
5. Prunella vulgaris	5	$\square$	6.7%	FACU	
6	0		0.0%		Five Vegetation Strata:
7			6.7%		
		$\Box$	0.0%		Tree - Woody plants, excluding woody vines, approximately
8		Η.			20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in diameter at breast height (DBH).
9	0	닏.	0.0%		Sapling stratum – Consists of woody plants, excluding
0	0	$\square$	0.0%		woody vines, approximately 20 ft (6 m) or more in height and
1	0		0.0%		less than 3 in. (7.6 cm) DBH.
2	0		0.0%		Shrub stratum - Consists of woody plants, excluding woody
		 = To	tal Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.
Woody Vine Stratum (Plot size:)			cai covei		Herb stratum – Consists of all herbaceous (non-woody)
1	0	$\square$	0.0%		plants, including herbaceous vines, regardless of size, and woody species, except woody vines, less than approximately
2	0		0.0%		3 ft (1 m) in height.
			0.0%		Woody vines – Consists of all woody vines, regardless of
3					height.
4	0		0.0%		
5	0	$\square_{}$	0.0%		Hydrophytic
6.	0		0.0%		Vocatation
		_ T	otal Cove		Present? Yes No •
	0	= 11			

Soil Sampling Point: UPL-W-CMS-04

	Matrix			dox Featu			absence of indicators.)		
Depth (inches)	Color (moist)	%	Color (moist)	%	Tvpe 1	Loc <sup>2</sup>	Texture	Remarks	
0-4	10YR 5/2	100					Clay Loam		
4-8	10YR 5/3	100		-			Clay Loam		
				-					
				-			,		
Гуре: C=Cor	ncentration. D=Depletion	on. RM=Red	uced Matrix, CS=Cover	ed or Coat	ed Sand Gr	ains ²Loc	ation: PL=Pore Lining. M=N	1atrix	
Hydric Soil	Indicators:						Indicators for Proble	ematic Hydric Soils <sup>3</sup> :	
Histosol (	(A1)		Dark Surface (	,			2 cm Muck (A10)		
_	ipedon (A2)		Polyvalue Belo				Coast Prairie Redo		
Black His			Thin Dark Surf			148)	(MLRA 147,148)	)Y (W10)	
	n Sulfide (A4)		Loamy Gleyed		)		Piedmont Floodpl	ain Soils (F19)	
_	Layers (A5)		Depleted Matri				(MLRA 136, 147)		
_	ck (A10) (LRR N)		Redox Dark Su	` ,	7)		Very Shallow Dark	Surface (TF12)	
_ '	Below Dark Surface (A	A11)	Depleted Dark		7)		Other (Explain in Remarks)		
_	rk Surface (A12)		Redox Depress Iron-Manganes	, ,	(F12) (LDD	N			
_ Sandy Mu MLRA 14	uck Mineral (S1) (LRR   7, 148)	N,	MLRA 136)						
Sandy Gl	eyed Matrix (S4)		Umbric Surface				3 Indicators of	hydrophytic vegetation and	
Sandy Re			☐ Piedmont Floo	dplain Soils	s (F19) (ML	RA 148)	wetland hyd	Irology must be present,	
Stripped	Matrix (S6)		Red Parent Ma	terial (F21	) (MLRA 12	7, 147)	unless dis	sturbed or problematic.	
Restrictive L	.ayer (if observed):								
Type: _r	nck								
Depth (inc	ches): <u>8</u>						Hydric Soil Present?	Yes O No 💿	
Remarks:									
Remarks:									

vvetland	48	Rater(s): C.STALLO	JNE, R. MASSA	Date: 2/12/2
	0 0	Metric 1. Wetland Area (size).	W-CMS-004 PEM	
max 6 pts	subtotal	Select one size class and assign score.  >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <1.1 acres (0.04ha) (0 pts)	0.06 acres	
	1 1	Metric 2. Upland buffers and sur	rrounding land use.	
max 14 pts.	F	2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <16-NARROW. Buffers average 10m to <25m (32ft to <10-VERY NARROW. Buffers average <10m (<32ft) arc 2b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, saw LOW. Old field (>10 years), shrubland, young second DODERATELY HIGH. Residential, fenced pasture,	wetland perimeter (7) 4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) und wetland perimeter (0) e or double check and average. rannah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, new fallow field. (3)	
	5.0 6	☐HIGH. Urban, industrial, open pasture, row cropping  Metric 3. Hydrology.	g, mining, construction. (1)	
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.  High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6 in) (3) 0.4 to 0.7m (15.7 to 27.6 in) (2) <0.4m (<15.7 in) (1) 3e. Modifications to natural hydrologic regime. \$ None or none apparent (12) Recovered (7) Recovering (3) x Recent or no recovery (1)	Check all disturbances observed ditch tile dike weir dred,	an use (1) complex (1) ) n. Score one or dbl check. urated (4)  (12in) (1) is source (nonstormwater) J/grading bed/RR track
	3 9	Metric 4. Habitat Alteration and	Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double  None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and as Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check of the control of	k and average.  Check all disturbances observed  mowing shrut grazing herb: clearcutting sedictions selective cutting dred; woody debris removal x farmi	
		e ORAM v. 5.0 Field Form Quantitative Rating		

wetland 48 | W-CMS-004 PEM\_Field 3/8/2019

Site: W-CMS-004 PEM	Rater(s): C.STALLON	ΙE,	R. MASSA	Date:	2/12/2019
9			W-CMS-004 PEM		
subtotal this page	Metric 5. Special Wetlands.				
max 10 pts. subtotal	Check all that apply and score as indicated [Bog (10)] Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrolog Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10) Known occurrence state/federal threatened or endang	ogy ( y (5)			
	Significant migratory songbird/water fowl habitat or us Category 1 Wetland. See Question 5 Qualitative Ratin	age (	10)		
2 11	Metric 6. Plant communities, inter	spe	ersion, microtopography.		
max 20pts. subtotal	6a. Wetland Vegetation Communities.		Vegetation Community Cove	er Scale	
	Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 a		
	Aquatic bed	1	Present and either comprises small pa		
1	Emergent		vegetation and is of moderate quality,	or comprises a	
<u> </u>	Shrub Forest	2	significant part but is of low quality  Present and either comprises significal	nt nart of wetland's 2	
_	Mudflats	_	vegetation and is of moderate quality of		
	Open water		part and is of high quality		
	Other	3	Present and comprises significant part	, or more, of wetland's 3	
	6b. horizontal (plan view) Interspersion.		vegetation and is of high quality		
	Select only one.				
	High (5)		Narrative Description of Vegetation		
	Moderately high(4)		Low spp diversity and/or predominance	e of nonnative or low	
<u> </u>	Moderate (3) Moderately low (2)		disturbance tolerant native species	the vegetation med	
<u> </u>	Low (1)		Native spp are dominant component of although nonnative and/or disturbance		
	None (0)		can also be present, and species diver		
	6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o pres		
	Table 1 ORAM long form for list. Add		threatened or endangered spp to		
	or deduct points for coverage		A predominance of native species, with	n nonnative spp high	
	Extensive >75% cover (-5)		and/or disturbance tolerant native spp	absent or virtually	
	Moderate 25-75% cover (-3)		absent, and high spp diversity and ofte		
<u>x</u>	Sparse 5-25% cover (-1) P. arundinacea		the presence of rare, threatened, or en	dangered spp	
<u> </u>	Nearly absent <5% cover (0)		Model of and Once Weter Class Ovel	14	
	Absent (1)	0	Mudflat and Open Water Class Quali	ity	
	6d. Microtopography. Score all present using 0 to 3 scale.		Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
1	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	5)	
<u> </u>	Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more		
	Standing dead >25cm (10in) dbh		,		
	Amphibian breeding pools		Microtopography Cover Scale		
	=		Absent		
		1	Present very small amounts or if more	common	
		- 2	of marginal quality  Present in moderate amounts, but not	of highort	
Category 1		2	quality or in small amounts of highest of		
	OTAL(max 100 pts)	<u></u>			
TI GRAND IC	TAL(max 100 pts)	3	Present in moderate or greater amount	IS	
			and of highest quality		

wetland 48 | W-CMS-004 PEM\_Field 3/8/2019



**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 48

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing North



### Wetland 48

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing East





**WETLANDS** 

Client Name:

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 48

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing South



### Wetland 48

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Facing West





**WETLANDS** 

**Client Name:** 

Site Location:

Project No.

AEP

Gable-Carrollton 138 kV Transmission Line Project

60582598

### Wetland 48

Date:

February 12, 2019

**Description:** 

PEM

Category 1

Soil Pit



## Wetland 49

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

Project/Site: Carrollton_Gable	:	City/County: Carroll	Sampling Date: 12-Feb-19
Applicant/Owner: AEP		State: OH	Sampling Point: W-CMS-05
Investigator(s): CMS, RM		Section, Township, Range: S 19	T 12N R 4W
Landform (hillslope, terrace, e	tc.): Floodplain	Local relief (concave, convex, none):	hummocky <b>Slope</b> :1.0% /0.6 °
Subregion (LRR or MLRA):	N 124 La	- nt.: 40.472833	80.934123 <b>Datum:</b> NAD83
Soil Map Unit Name: Tg - Tio	oga silt loam, occasionally flooded		NWI classification: NA
Are climatic/hydrologic condit	ions on the site typical for this time o	of year? Yes   No   (If no, expla	ain in Remarks.)
Are Vegetation , Soil	, or Hydrology signific	antly disturbed? Are "Normal Circu	mstances" present? Yes O No
Are Vegetation , Soil	, or Hydrology 🗸 natural	ly problematic? (If needed, explai	n any answers in Remarks.)
Summary of Findings		g sampling point locations, t	ransects, important features, etc.
Hydrophytic Vegetation Prese			
Hydric Soil Present?	Yes   No	Is the Sampled Area Yes	● No ○
Wetland Hydrology Present?	Yes   No	within a Wetland?	
Remarks:			
1 33 Weddid Widiii 1100dplai	TO GILL CHE OI. SHOW HICK WIN II	eavy rain contributed to hydrology indica	itors.
Hydrology			
Wetland Hydrology Indicator	's:	Seco	ndary Indicators (minimum of two required)
Primary Indicators (minimum	n of one required; check all that appl	y)	Surface Soil Cracks (B6)
Surface Water (A1)	True Aquatic P	lants (B14)	parsely Vegetated Concave Surface (B8)
✓ High Water Table (A2)	Hydrogen Sulfi		Orainage Patterns (B10)
Saturation (A3)			Moss Trim Lines (B16)
Water Marks (B1)		` '	Ory Season Water Table (C2)
Sediment Deposits (B2)		` '	Crayfish Burrows (C8)
Drift deposits (B3)	☐ Thin Muck Sur		Saturation Visible on Aerial Imagery (C9)
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)	U Other (Explain		Stunted or Stressed Plants (D1) Seomorphic Position (D2)
Inundation Visible on Aerial	Imagery (B7)		shallow Aquitard (D3)
Water-Stained Leaves (B9)	imagery (27)	_	ficrotopographic Relief (D4)
Aquatic Fauna (B13)			AC-neutral Test (D5)
Field Observations:			
Surface Water Present?	Yes   No Depth (inche	s):1	
Water Table Present?	Yes   No Depth (inche	s): 12	
Saturation Present?	<b>Yes ● No</b> ○ Depth (inche	Wetland Hydrology	Present? Yes   No
(includes capillary irringe)		notos, previous inspections), if available:	
Describe Recorded Data (Sire	ani gauge, monitoring well, aeriai pi	iotos, previous irispections), ir available.	
Remarks:			
	lischarge and snow melt contributed	to hydrology evident at time of sampling	
, , , , , , , , , , , , , , , , , , , ,	3	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	

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

		Conneiland		Sampling Point: W-CMS-05	
Tree Stratum (Plot size:)	Absolute % Cover	Species? Rel.Strat. Cover	dicator atus	Dominance Test worksheet:	
1	0	0.0%		Number of Dominant Species That are OBL, FACW, or FAC:3 (A)	
2	0	0.0%			
3		0.0%		Total Number of Dominant Species Across All Strata: 4 (B)	
4		0.0%		Species Across Air Strata.	
5		0.0%		Percent of dominant Species	
5 5	_	0.0%		That Are OBL, FACW, or FAC: 75.0% (A/B)	
7		0.0%		Prevalence Index worksheet:	
3		0.0%		Total % Cover of: Multiply by:	
	0 =	= Total Cover		OBL species 10 x 1 = 10	
Sapling-Sapling/Shrub Stratum (Plot size:	)			FACW species 70 x 2 = 140	
1	0			FAC species $\frac{40}{3}$ x 3 = $\frac{120}{3}$	
2	0				
3		0.0%		20 150	
1	0	0.0%		UPL species $30 \times 5 = 150$	
5		0.0%		Column Totals: <u>150</u> (A) <u>420</u> (B)	
5	0			Prevalence Index = $B/A = 2.800$	
7				Hydrophytic Vegetation Indicators:	
3	0	0.0%		Rapid Test for Hydrophytic Vegetation	
9	0	0.0%		✓ Dominance Test is > 50%	
)	0	0.0%		✓ Prevalence Index is ≤3.0 ¹	
Show to Street was (Diet size: 15)	0 =	= Total Cover			
Shrub Stratum (Plot size: 15' )	30	<b>✓</b> 60.0% F	ACW	Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
1. Betula nigra	20		ACVV	Problematic Hydrophytic Vegetation (Explain)	
2. Quercus imbricaria		0.0%	AC		
3				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
4		0.0%		Definition of Vegetation Strata:	
5		0.0%		_	
5				Four Vegetation Strata:  Tree stratum – Consists of woody plants, excluding vines, 3	
7				in. (7.6 cm) or more in diameter at breast height (DBH),	
Herb Stratum (Plot size: _5' )	50 =	= Total Cover		regardless of height.	
1 Poa palustris	30	<b>✓</b> 30.0% F	ACW	Sapling/shrub stratum – Consists of woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.	
2. Monarda fistulosa	30	<b>✓</b> 30.0% U	JPL	Herb stratum – Consists of all herbaceous (non-woody)	
3 Dichanthelium clandestinum	10	☐ 10.0% F	AC	plants, regardless of size, and all other plants less than 3.28	
1 Solidago gigantea	10	10.0% F	ACW	ft tall. Woody vines – Consists of all woody vines greater than 3.28	
Cardamine pensylvanica	10	10.0%	DBL	ft in height.	
6. Verbesina alternifolia	10	□ 10.0% F	AC	Five Vegetation Strata:	
7	0	0.0%		Five Vegetation Strata:	
3.		0.0%		Tree - Woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and 3 in. (7.6 cm) or larger in	
9.		0.0%		diameter at breast height (DBH).	
)		0.0%		Sapling stratum – Consists of woody plants, excluding woody vines, approximately 20 ft (6 m) or more in height and	
J.		0.0%		less than 3 in. (7.6 cm) DBH.	
2.		0.0%		Shrub stratum – Consists of woody plants, excluding woody	
		= Total Cover		vines, approximately 3 to 20 ft (1 to 6 m) in height.	
Woody Vine Stratum (Plot size:)				Herb stratum – Consists of all herbaceous (non-woody) plants, including herbaceous vines, regardless of size, and	
1				woody species, except woody vines, less than approximately	
2				3 ft (1 m) in height.	
3				Woody vines – Consists of all woody vines, regardless of	
4		0.0%		height.	
5		0.0%		Hydrophytic	
5	0	0.0%		Vegetation Vegetation	
		= Total Cover		Present? Yes Vo V	

Soil Sampling Point: W-CMS-05

Profile Descr	ription: (Describe t	o the depth	needed to docur	nent the indi	cator or co	onfirm the	absence of indicators.)			
Depth	Matrix		Redox Features							
(inches)	Color (moist)	%	Color (moist		Tvpe 1	Loc2	Texture	Remarks		
0-8	7.5YR 5/1	90	7.5YR 5/6	10	C	M	Sandy Clay Loam			
8-16	10YR 5/2	90	10YR 4/6	10	C	M	Sandy Clay Loam			
1 Type: C-Con	centration D-Deplet	ion DM-Dad	uced Matrix CS-C	overed or Coa	ted Sand Gr	raine 21 oc	ration: PL=Pore Lining, M=	Matrix		
Hydric Soil 1	<u>.</u>	ion. Rivi=Red	uceu Matrix, CS=C	overed or Coa	teu Sanu Gi	allis -LOC				
Histosol (			☐ Dark Surfa	ice (S7)				ematic Hydric Soils <sup>3</sup> :		
_ `	pedon (A2)			Below Surface	(S8) (MLRA	147,148)	2 cm Muck (A10) (MLRA 147)			
Black Hist				Surface (S9) (			Coast Prairie Red (MLRA 147,148)	Coast Prairie Redox (A16)		
Hydrogen	Sulfide (A4)		Loamy Gle	yed Matrix (F2	2)			Piedmont Floodplain Soils (F19)		
	Layers (A5)		✓ Depleted N				(MLRA 136, 147)	()		
	k (A10) (LRR N)			k Surface (F6)			Very Shallow Dar	k Surface (TF12)		
	Below Dark Surface (	(A11)		Oark Surface (I oressions (F8)	-/)		Other (Explain in	Remarks)		
	k Surface (A12)	N		anese Masses	(F12) (I RR	N				
MLRA 147	uck Mineral (S1) (LRR 7, 148)	. N,	MLRA 136	)						
				rface (F13) (M			<sup>3</sup> Indicators of hydrophytic vegetation and			
Sandy Redox (S5)							wetland hydrology must be present,			
Stripped Matrix (S6)				t Material (F21	l) (MLRA 12	7, 147)	unless disturbed or problematic.			
Restrictive L	ayer (if observed):									
Type:							Hydric Soil Present?	Yes   No		
Depth (inc	thes):							100		
Remarks:										
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This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

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in

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

Summary: Notice LON application for the Tidd-Sunnyside 138 kV Transmission Line Rebuild Project 801-1000 electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.