

Photograph 57. Stream S021, Downstream, Facing North



Photograph 58. Stream S021, Upstream, Facing South





Photograph 59. Stream S022, Upstream, Facing Northeast



Photograph 60. Stream S022, Downstream, Facing Southwest





Photograph Stream 61. S023, Downstream, Facing South



Photograph 62. Stream S023, Upstream, Facing North





Photograph 63. Stream S024, Upstream, Facing Northwest



Photograph 64. Stream S024, Downstream, Facing Southeast





Photograph 65. Stream S025, Upstream, Facing Southwest



Photograph 66. Stream S025, Downstream, Facing Northeast





Photograph 67. Stream S026, Upstream, Facing West



Photograph 68. Stream S026, Downstream, Facing Southeast





Photograph 69. Stream S027, Upstream, Facing North



Photograph 70. Stream S027, Downstream, Facing South





Photograph 71. Stream S028, Upstream, Facing Northwest



Photograph 72. Stream S028, Downstream, Facing Southeast





Photograph 73. Stream S029, Upstream, Facing Northwest



Photograph 74. Stream S029, Downstream, Facing Southeast





Photograph 75. Stream S030, Upstream, Facing North



Photograph 76. Stream S030, Downstream, Facing South





Photograph 77. Stream S031, Upstream, Facing North



Photograph 78. Stream S031, Downstream, Facing South





Photograph 79. Stream S032, Upstream, Facing Northwest



Photograph 80. Stream S032, Downstream, Facing Southeast





Photograph 81. Stream S033, Upstream, Facing Northeast



Photograph 82. Stream S033, Downstream, Facing Southwest





Photograph 83. Stream S034, Upstream, Facing Northeast



Photograph 84. Stream S034, Downstream, Facing Southwest





Photograph 85. Stream S035, Upstream, Facing Northeast



Photograph 86. Stream S035, Downstream, Facing Southwest





Photograph 87. Stream S036, Upstream, Facing Northeast



Photograph 88. Stream S036, Downstream, Facing Southwest





Photograph 89. Stream S037, Upstream, Facing North



Photograph 90. Stream S037, Downstream, Facing South





Photograph 91. Representative upland habitat, Facing Southeast



Photograph 92. Representative upland habitat, Facing North





Photograph 93 Representative upland habitat, Facing Northwest



Photograph 94. Representative upland habitat, Facing Northwest



## **APPENDIX B**Wetland Determination Data Forms



WETLAND DETERMINATION DATA FOR	M - Eastern Mountains and Piedmont Region
Project/Site: Koss - Ginger City/Co	unty: Poss Co Sampling Date: 5 23 2017
Applicant/Owner: AEP U	State: OH Sampling Point: WOOI - PEM - CATI
Investigator(s): KLV, RJM	Section, Township, Range: Springfield Twp
	ocal relief (concave, convex, none) Slope (%)
Subregion (LRR or MLRA): Lat: 39. 3133	
Soil Map Unit Name: RbB-Rainsboro 31 H loam, 2-690 S	NWI classification: MC
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation NO, Soil, or Hydrology significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation 10, Soil , or Hydrology naturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map showing sa	impling point locations, transects, important features, etc.
Hydrophylic Vegetation Present? Yes No	/,
	e Sampled Area within a Wetland? Yes No
- T	
WellanData point for WOOI-PEM-CATI. Data point taken in fenced pasture under	transmission right of way
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is 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)  Water Marks (B1)  Oxidized Rhizospheres on Li  Presence of Reduced Iron (C	
Water Marks (B1) Presence of Reduced Iron (C Sediment Deposits (B2) Recent Iron Reduction in Tille	
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)	Geomorphic Position (D2)
Inundation VIsible on Aerial Imagery (B7)	Shallow Aquitard (D3)
Water-Stained Leaves (B9)	Microtopographic Rellef (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes V No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections	), if evailable:
Remarks: Wetland hydrology Indicators are	3, D2, and D5.

Tree Stratum (Plot size: 30	Absolute	Dominant Indicator Species? Status	Dominance Test worksheet:
0.000	) <u>% Cover</u>	Species? Status	Number of Dominant Species That Are  OBL, FACW, or FAC:  (A)
2			
3			Total Number of Dominant Species Across All Strata: (B)
4			Percent of Dominant Species That Are
5			OBL, FACW, or FAC:
6			Prayalence Index worksheet:
7,	0	= Total Cover	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size: 15'			OBL species
apling/Shrub Stratum 1. Plot size: 1			FAC species x 3 =
2			FACU species x 4 =
3			UPL species
5			
6			Prevalence Index = B/A =
8.			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50%
	0	= Total Cover	3 - Prevalence Index is ≤3.01
51			4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
erb Stratum  1. JUNCUS CHUSUS (Plot size: 5)	5	y Facul	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2 Carex Jurida	10	4 201	
3 Persicarla maculosa 4 Onoclea sensibilis	<u> </u>	- Fach	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
6			The Mark shade such firm time 2 is 77.6 and a second
8			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more diameter.
9			
1,			Sapiling/Shrub- Woody plants, excluding vines, less than 3 in
2			DBH and greater than or equal to 3.28 ft (1 m) tall.
	40	= Total Cover	
			Herb - All herbaceous (non-woody) plants, regardless
700dy Vine Stratum 1. NONC (Plot size: 30	)		of size, and woody plants less than 3.28 ft tall.
2.			
3			Woody Vines - All woody vines greater than 3.28 ft in
4 5.			height.
6			
		= Total Cover	
			Hydrophytic
			Vegetation Present? Yes No

Sampling Point: WOOL-PEM-CATI

Depth	Matrix			Redox Featu				
(inches)	Color (moist)	%	Color (moist)		Type <sup>1</sup>	Loc2	Texture	Remarks
)-4_	104R415	100					SIL	
-110	104R411	TO	104R44	30	C	PL	SittyClay	
	Action 1						1	
	-							
		-	-		-	-		
			-	-	-	-		
				-		-	-	
-			-		-	-		
		_						
ype: C=conce	entration, D=Depletion,	RM=Reduc	ed Matrix, MS=Masked	Sand Grains.			<sup>2</sup> Location: PL=Pore Lini	ng, M=Matrix
dric Soli Indi	cators:						Indicators for Problem	atic Hydric Soils <sup>3</sup> :
							2 cm Much (A40) //	MI DA 147\
Histosol (A			Dark Surface (S	-	) /MI DA 14	7 149)	2 cm Muck (A10) (I	× (A16) (MLRA 147, 148)
Histic Epipe			Polyvalue Belov Thin Dark Surfa				Piedmont Floodpla	
_ Black Histic			Loamy Gleyed I		CA 147, 140	<b>'</b>	(MLRA 136, 147)	iii dolla (i 10)
Hydrogen S Stratified La			Depleted Matrix				Very Shallow Dark	Surface (TF12)
_	(A10) (LRR N)		Redox Dark Sur				Other (Explain in R	
_	elow Dark Surface (A1	1)	Depleted Dark \$					,
_	Surface (A12)	'/	Redox Depress					
_	ky Mineral (S1) (LRR N	l,	Iron-Manganese		2) (LRR N,	MLRA 136)		
MLRA 147,			Umbric Surface					
Sandy Gley	ved Matrix (S4)		Piedmont Flood	Iplain Soils (F	19) (MLRA	148)		
_ Sandy Red	ox (S5)		Red Parent Mat	terial (F21) (M	ILRA 127, 1	47)		
Stripped Ma	atrix (S6)							
<sup>3</sup> Indicators	of hydrophytic vegetation	on and wetl	and hydrology must be p	present, unles	s disturbed	or problem	atic.	
estrictive Lay	yer (if observed):							
Туре:						Hyde	ric	,
Depth (inch	es):					Soll Pre	esent? Yes \	No
, ,								

WETLAND DETERMINATION DATA			
Project/Site: Koss-Ginger	City/County: ROSS CO	Sampling Date: 5 18 2017	
Applicant/Owner: REP		tate: OH Sampling Point W002-PEM-0	ATI
Investigator(s): KCV, KOM		nge: Springfield luip	
Landform (hilslope, terrace, etc.):		nyex, none) <u>COMCOUC</u> Slope (%) <u>O /</u> ng: -82. 67574/ Datum: <u>NAD 8</u>	2,
	to 6.7. Slopes	NWI classification:	_
Soil Map Unit Name: Are climatic/hydrologic conditions on the site typical for this time of year?	1/	No (If no, explain in Remarks)	
Are Vegetation \( \bar{N}_{\infty} \). Soil \( \bar{N}_{\infty} \), or Hydrology \( \bar{N}_{\infty} \) significantly dist		"Normal Circumstances" present? Yes No	
Are Vegetation no , Soil no , or Hydrology naturally proble	ematic? (If ne	eeded, explain any answers in Remarks.)	
SUMMARY OF FINDINGS - Attach site map show	ving sampling point location	ions, transects, important features, etc.	
Hydrophytic Vegetation Present? Yes V			
Hydric Soil Present? Yes / No	Is the Sampled Area with	nin a Wetland? Yes No	
Wetland data point for wooz- Data takenat edge of maintain	PEM -CATI (PE	EM).	
Wetland alala point	and brown well	in vicht-of-way	
Data takenat edge of maintain	VER AMPLIANZING	or i rigiti of voice	
HYDROLOGY			
		Secondary Indicators (minimum of two required)	
Wetland Hydrology Indicators:  Primary Indicators (minimum of one is 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 Od		Drainage Patterns (B10)	
<del></del>	res on Living Roots (C3)	Moss Trim Lines (B16)	
Water Marks (B1) Presence of Reduce	d Iron (C4)	Dry-Season Water Table (C2)	
Sediment Deposits (B2) Recent Iron Reduction	on in Tilled Soils (C6)	Crayfish Burrows (C8)	
Drift Deposits (B3) Thin Muck Surface (C	·	Saturation Visible on Aerial Imagery (C9)	
Algal Mat or Crust (B4) Other (Explain in Rer	narks)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)	
Iron Deposits (B5) 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):			
Water Table Present? Yes No Depth (inches):			
	Wetlan	nd Hydrology Present? Yes No	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)		ing Hydrology Present:	-
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	nections), if available;		
Booking Frederick Sale (street Sales) The transfer of the sales of the	,,		
Remarks:			
Wetland Hydrology Indicators of	live C3. D2 av	nd D5.	
100000000000000000000000000000000000000	.,, -		

ee Stratum (Plot size: 30'		Species? Status	Number of Dominant Species That Are OBL FACW, or FAC:  Total Number of Dominant Species Across All Strate:  (B)
			1001
			Percent of Dominant Species That Are DBL_FACW, or FAC:  (A)
			F-4-1040-14
	-0	= Total Cover	Prevalence Index worksheet:  Total % Cover of: Multiply by:
15.1		, otor dover	OBL species x 1 =
pling/Shrub Stratum (Plot size: 5'	<sup>-1</sup> 10	11 Fac	FACW species x 2 =
Sambus nigra		1 100	FACU species x 3 = FACU species x 4 =
			UPL species x 5 =
			Column Totals: (A)
			Prevalence Index = B/A =
			Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
	10_	= Total Cover	3 - Prevalence Index is ≤3.01
5			4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)
Duncus Fenuis (Plot size: 5)	一 <sup>1</sup> 25	V Fach	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Onorted Sensibilis	15	N Fach	
Impatiens capensis	_ 15	N Fach	Indicators of hydric soil and wetland hydrology must
Dichantheliumeladestinum Verbena hastald	_ 20	N Fach	be present, unless disturbed or problematic.  Definitions of Vegetation Strata:
Va boller Herestere			
			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
		-	diameter.
			Sapting/Shrub- Woody plants, excluding vines, less than 3
	- 20	= Total Cover	DBH and greater than or equal to 3.28 ft (1 m) tall.
	_60	- Total Cover	
201			Herb - All herbaceous (non-woody) plants, regardless
ody Vine Stratum (Plot size: 30'			of size, and woody plants less than 3.28 ft tall.
Horic			
			Woody Vines - All woody vines greater than 3.28 ft in
			height.
	0	= Total Cover	
			Hydrophytic
			Vegetation
			Present? Yes No
di Barria di India da da manda	to about)		
getation Remarks: (Include photo numbers here or on a sep	arate sneet).	1, 1 -	1.1
Hydrophytic veg is present -	passes	the domin	unce test.
idaiobillio red is 1.			

(Inches)	Matrix Color (moist)	%	Color (moist)	Redox Featu	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
1-12	IOYR41	75	7.54R4/6	25	C	PL	SiHyClay	
		=						
n: C=0000	entration, D=Depletion,	PM-Padusa	- Matrix MC-Masked	Sand Crains			<sup>2</sup> Location: PL=Pore I	ining M=Matrix
Iric Soll Ind		-Keonce	Manto, IVIO-IVIASKEO	Sand Grains			THE WHITE SEED,	ematic Hydric Soils <sup>3</sup> :
Stratified L 2 cm Muck Depleted E Thick Dark	pedon (A2) ic (A3) Sulfide (A4) .ayers (A5) c (A10) (LRR N) Below Dark Surface (A11 c Surface (A12) cky Mineral (S1) (LRR N		Dark Surface (S Polyvalue Belov Thin Dark Surfa Loamy Gleyed I Depleted Matrix Redox Dark Su Depleted Dark S Redox Depress Iron-Manganese Umbric Surface Piedmont Flood	w Surface (S8 ace (S9) (MLF Matrix (F2) c (F3) rface (F6) Surface (F7) ions (F8) e Masses (F1 c (F13) (MLFA	2) (LRR N, I 136, 122) 19) (MLRA	MLRA 136) 148)	Piedmont Flood (MLRA 136, 147	edox (A16) <b>(MLRA 147, 148)</b> plain Soils (F19) ') ark Surface (TF12)
MLRA 147	yed Matrix (S4)		Red Parent Ivial					
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) lox (S5)	n and wetlar	6-10-	present, unles	s disturbed	or problema	atic.	
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6)	n and wetlar	6-10-	present, unles	s disturbed	or problema	alic.	
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetatio yer (if observed):	n and wetlar	6-10-	present, unles	s disturbed	or problems Hydr Soil Pre	ic	√ No
MLRA 147 Sandy Gley Sandy Red Stripped M  Indicators strictive Lay Type: Depth (inch	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetatio yer (if observed):	and wettar	nd hydrology must be p	present, unles	s disturbed	Hydr	ic	✓ No
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetatio yer (if observed):		nd hydrology must be p	present, unles	s disturbed	Hydr	ic	✓ No
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetatio yer (if observed):		nd hydrology must be p	present, unles	s disturbed	Hydr	ic	√No
MLRA 147 Sandy Gley Sandy Red Stripped M	yed Matrix (S4) dox (S5) latrix (S6) of hydrophytic vegetatio yer (if observed):		nd hydrology must be p	present, unles	s disturbed	Hydr	ic	√No

WETLAND DETERMINATION DATA	FORM - Eastern Mountains and Piedmont Rec	jion
Project/Site: KOSS Gringer		Date: 5/18/2017
Applicant/Owner:	A	Point: WOOZ-PEM-CATI-UPL
Investigator(s): KLV KOVI	100	Slone (W)
Landform (hilslope, terrace, etc.):  Subregion (LRR or MLRA):  Lat 31, 3,		Slope (%) 07.  Datum: NAD 83
Soil Map Unit Name: RbB - RainSboro Sil Hoam 2		
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Re	emarks)
Are Vegetation $\[\underline{NO}\]$ , Soil $\[\underline{NO}\]$ , or Hydrology $\[\underline{NO}\]$ significantly distribution	rbed? Are "Normal Circumstances" present?	Yes No
Are Vegetation <u>ND</u> , Soil <u>NO</u> , or Hydrology <u>NO</u> naturally problem		
SUMMARY OF FINDINGS - Attach site map show	ng sampling point locations, transects, Important fe	eatures, etc.
Hydrophytic Vegetation Present? YesNo		
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes No		
Remarks:		
Data point taken in maintained	EM-CATI and WOOZ-PEM-CA	TI.
	haran in a kicht of May	
Data point taken in maintained	frauzmezien liani-or-road	`
HYDROLOGY		
Wetland Hydrology Indicators:	Secondary Indicators (minima	um of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (	
Surface Water (A1) True Aquatic Plants (B		Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odd Saturation (A3) Oxidized Rhizosphere		
Water Marks (B1) Presence of Reduced		·
Sediment Deposits (B2) Recent Iron Reduction		)
Drift Deposits (B3) Thin Muck Surface (C	) Saturation Visible on	Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Rem		
Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7)	Geomorphic Position Shallow Aquitard (D3	
Water-Stained Leaves (B9)	Microtopographic Rei	
Aquatic Fauna (B13)	FAC-Neutral Test (DS	5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):  Water Table Present? Yes No Depth (inches):		
	Wetland Hydrology Present?	Yes No \
Saturation Present? Yes No Depth (inches):  (includes capillary fringe)		NO
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	ctions), if available:	
Remarks:		
Wetland Hydrology Indicators ar	e not present	
, , , , , , , , , , , , , , , , , , ,		

Tree Stratum (Plot size: 30	Absolute ) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:  Number of Dominant Species That Are
1. None			OBL. FACW, or FAC:  Cotal Number of Dominant Species Across All Strata:  (B)
5			Percent of Dominant Species That Are OBL FACW, or FAC:  (A/B)
6		= Total Cover	Prevalence Index worksheet:
1. Rubus allegheniensis 2. 3. 4.			FAC species
5		$\equiv \equiv$	Prevalence Index = B/A =
8		= Total Cover	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting
1. Oxalis strictd 2. Achilled millefolium 3. Leucanthemum Vulgare 4. Epilobium colonatum 5. Ohocied sensibilis	15 20 15 10 5	Faculty Facult	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation (Explain)  Indicators of hydric soil and welland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:
6			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more In diameter.
10		= Total Cover	Sapling/Shrub- Woody plants, excluding vines, less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
Woody Vine Stratum (Plot size: 301	)		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2			Woody Vines - All woody vines greater than 3.28 ft in height.
6		= Total Cover	Hydrophytic
			Vegetation Present? Yes No
Vegetation Remarks: (Include photo numbers here or on a ser Upland veg is dominant			
opinitel veg			

Depth	Matrix			Redox Features		2.,
(inches)	Color (moist)		Color (moist)	%Ty	oe <sup>1</sup> Loc <sup>2</sup>	Texture Remarks
)-l(e	JOYR414 	1007				SiHlaam_
pe: C=conc	entration, D=Depletion, I	RM=Reduced I	Matrix, MS=Masked	Sand Grains.		<sup>2</sup> Location: PL=Pore Lining, M=Matrix.
dric Soll Ind	icators:					Indicators for Problematic Hydric Soils <sup>3</sup> :
Black Hist Hydrogen Stratified L 2 cm Muck Depleted E Thick Dark Sandy Muc MLRA 147 Sandy Gle Sandy Rec Stripped M	sedon (A2) ic (A3) Sulfide (A4) sayers (A5) ic (A10) (LRR N) Selow Dark Surface (A11) ic Surface (A12) icky Mineral (S1) (LRR N ic,148) iyed Matrix (S4) iox (S5)	=	Thin Dark Surfa Loamy Gleyed Depleted Matrix Redox Dark Su Depleted Dark Redox Depress Iron-Manganes Umbric Surface Piedmont Flood Red Parent Matrix	w Surface (S8) (MLI ace (S9) (MLRA 147 Matrix (F2) x (F3) urface (F6) Surface (F7) sions (F8) e Masses (F12) (LR e (F13) (MLRA 136, dplain Soils (F19) (M terial (F21) (MLRA 1	, 148) R N, MLRA 136 122) LRA 148) 27, 147)	
	yer (if observed):				1	
Type: Depth (incl					Hyd Soil Pr	esent? Yes No/
	on Remarks:					
	Hydric Soil I	ndicato	rs are not	present		

Project/Site: Ross Ginger	City/County: ROSS Co.	Sampling Date: 8/1/2017
Applicant/Owner:		ate: OH Sampling Point: WOO3-PEM-CAT
Investigator(s):	Section, Township, Rang	A I I -
Landform (hilslope, terrace, etc.):	Local relief (concave, conv	vex, none); CONCOUL Slope (%) 07.
Subregion (LRR or MLRA):	32435504 Long	g: -82.90020856 Datum: NAD 83
Soil Map Unit Name: MaA-Menter Sittlam, 0 to 2	·1. Slopes	NWI classification:
Are climatic/hydrologic conditions on the site typical for this time of year	r? Yes	No (If no, explain in Remarks)
Are Vegetation $10$ . Soil $10$ , or Hydrology $10$ significantly of	isturbed? Are "N	Normal Circumstances" present? Yes No
Are Vegetation $\overline{\Omega}$ . Soil $\underline{\Omega}$ , or Hydrology $\underline{\Omega}$ naturally prob	olematic? (If nee	eded, explain any answers in Remarks )
SUMMARY OF FINDINGS - Attach site map she	wing sampling point location	ons, transects, important features, etc.
Libration by the Vergetation Present? Very V		
Hydrophytic Vegetation Present? Yes V No		
Hydric Soil Present? Yes No	Is the Sampled Area within	in a Wetland? Yes No
Wetland Hydrology Present? Yes No		
Remarks: 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	B- WALL DEN	
Remarks: Wetland data point for W003.	PEM-CATICPCI	1).
Data point taken in maintain fenced pasture:	ud Dannersein	a Raylandin a active.
Land point tarrer in in lour idin	101 HOLD 11 112210	W HOW WITH THE SECTION
fenced pasture.		
HYDROLOGY		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	(7.4.1)	Surface Soil Cracks (B6)
Surface Water (A1)  True Aquatic Plant		Sparsely Vegetated Concave Surface (B8)
High Water Table (A2)  Hydrogen Sulfide (	• •	Drainage Patterns (B10)
<del></del>	eres on Living Roots (C3)	Moss Trim Lines (B16)  Dry-Season Water Table (C2)
Water Marks (B1) Presence of Reduction Recent Iron Rec	ation in Tilled Soils (C6)	Crayfish Burrows (C8)
Drift Deposits (B3)  Thin Muck Surface	• •	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)  Other (Explain in R	•	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:		
/	0"	
Surface Water Present? Yes V No Depth (inches)	<u>«</u>	
Water Table Present? Yes No Depth (inches)	ı: <u>0</u>	,
Saturation Present? Yes No Depth (inches)	Wetland	d Hydrology Present? Yes No
(includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous in	spections), if available:	
Remarks:	A 1	1202 52 10
Wetland Hydrology India	ators are Ali	A3, C3, UZ and US.
	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	, ,

	201	Absolute	Dominant Indicator	Dominance Test worksheet:
Tree Stratum	(Plot size: 30)	) <u>% Cover</u>	Species? Status	Number of Dominant Species That Are
1 none				OBL, FACW, or FAC:
2				Fatal Mushas of Descinant Session
3				Total Number of Dominant Species Across All Strate:  (B)
4.				
5		-		Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B)
			-	(VB)
6				Prevalence Index worksheet:
"-			= Total Cover	Total % Cover of: Multiply by:
				OBL species x 1 =
Sapling/Shrub Stratum	(Plot size: 15	_)		FACW species x 2 =
1. none				FAC species x 3 =
2				FACU species x 4 =
3				UPL species x 5 =
4				Column Totals: (A) (B)
5				
6				Prevalence Index = B/A =
7				Hydrophytic Vegetation Indicators:
8 9.				1 - Rapid Test for Hydrophytic Vegetation
10.				2 - Dominance Test is >50%
		0	= Total Cover	3 - Prevalence Index is ≤3.0 <sup>1</sup>
	- 1			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stçatum	(Plot size: 5	_)		data in Remarks or on a separate sheet)
Juncus ettusus		_ 20	Y Fach	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. Typha Xglauc	a	_ 20_	4 001	
3 Scirpus atrovir	rns_	10	N OPI	1 Indicators of hydric soil and wetland hydrology must
4. Impatiens cape	insis .	15	N Facty	be present, unless disturbed or problematic.
5. Carex Iuriaa		_ 12	N Opt	Definitions of Vegetation Strata:
6				
7				Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter.
8				diameter.
			-	
11,				Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12.				DBH and greater than or equal to 3.28 ft (1 m) tall.
		- 780	= Total Cover	
	201			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum	(Plot size: 30	_)		of size, and woody plants less than 3.28 ft tall.
1. none				
2				
3				Woody Vines - All woody vines greater than 3.28 ft in
4				height.
5				
6,		-		
			= Total Cover	
				Hydrophytic
				Vegetation
				Present? Yes No
Vegetation Remarks: (Include photo	numbers here or on a separ	ate sheet).		
11 . 1 . 1	1		h	I al and dominantel
Hydrophytic V	leg is present.	- Pass	es the rapi	d test and dominance test.
		1		

Sampling Point: W003-PEW-CATI

Dam  Ocation: PL=Pore Lining, M=Matrix.  dicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)
ocation: PL=Pore Lining, M=Matrix.  dicators for Problematic Hydric Soils <sup>3</sup> :
ocation: PL=Pore Lining, M=Matrix.  dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
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dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
dicators for Problematic Hydric Soils <sup>3</sup> :
_ 2 cm Muck (A10) (MLRA 147)
Const Deside Deden (A40) (88) BA 445 110
Coast Prairie Redox (A16) (MLRA 147, 148) Piedmont Floodplain Soils (F19)
(MLRA 136, 147)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
/
? Yes No
ıt

0 4	A FORM - Eastern Mountains and Piedmont Region
Project/Site: hoss Ginger	City/County: PXSSCO Sampling Date: 8/1/201
Applicant/Owner:	State: OH Sampling Point: W003-PEM-CATI-U  Section, Township, Range: Springfield Twp
Investigator(s): Landform (hilstope, terrace, etc.):	Local relief (concave, convex, none): NONE Slope (%)
	32434427 Long: -82,9000848 Datum: NAD 83
Soil Map Unit Name: MaA-Menter Sittloam, Ota 2	1 Stopes / NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of year?	
Are Vegetation 10, Soil 10, or Hydrology 10 significantly dis	sturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation NO, Soil NO , or Hydrology NO naturally problem	ematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map sho	wing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
	is the campied Area within a ventilator
Wetland Hydrology Present? Yes No	
Remarks: Woldney dotal point for Wima-	PEM-CATI. ed transmission Row and fenced pasture. active
opidies olocia point its vous	1 2 La Caradanaluva
Dotte point taken in maintain	ed transmission kow and tencea pasture
Outer bourge	active
	***************************************
IIVDDOLOOV	
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)  Sparsoly Vegetated Conceye Surface (B8)
Surface Water (A1)  True Aquatic Plants  Underson Table (A2)	
High Water Table (A2)  Hydrogen Sulfide O	dor (C1) Drainage Patterns (B10) eres on Living Roots (C3) Moss Trim Lines (B16)
Saturation (A3) Oxidized Rhizosphe Water Marks (B1) Presence of Reduce	
<del></del>	ion in Tilled Soils (C6) Crayfish Burrows (C8)
Drift Deposits (B3)  Thin Muck Surface (	
Algal Mat or Crust (B4) Other (Explain in Re	
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):	
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	
(includes capillary fringe)	Treating Hydrology Frederic
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous ins	spections), if available:
Remarks:	
Wetland Hydrology Indicato	rs are not present.
1 VOIDI OF TIGHT	

Tree Stratum (Plot size: 30	Absolute ) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1_10111	7 70 0000		Number of Dominant Species That Are OBL, FACW, or FAC: (A)
			Total Number of Dominant Species Across All Strata: (B)
4			Percent of Dominant Species That Are OBL, FACW, or FAC: (A/I
6			Prevalence Index worksheet:
	0	= Total Cover	Total % Cover of: Multiply by:  OBL species x 1 =
ppling/Shrub Stratum (Plot size: 5/	3		OBL species
none.			FAC species x 3 =
2			FACU species x 4 =
3			UPL species x 5 =
4			Column Totals: (A) (I
6			Prevalence Index = 8/A =
7,			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
0,			2 - Dominance Test is >50%
	_0_	= Total Cover	3 - Prevalence Index is ≤3.0¹
5'			4 - Morphological Adaptations <sup>1</sup> (Provide supportin
erb Stratum	25	N Fact	data in Remarks or on a separate sheet)
Plantago major		Fucu	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Trifolium pratense	10	N Facu	Indicators of hydric soil and wetland hydrology must
Achillea millefolium	10	N Facu	be present, unless disturbed or problematic.
Vernonia giganted	5	N Fac	Definitions of Vegetation Strata:
Glechoma Rederaced	15	N Fact	
The state of the s		11 10000	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
			diameter.
9,			
),			
r			Sapling/Shrub- Woody plants, excluding vines, less than 3 i
	- 00		DBH and greater than or equal to 3.28 ft (1 m) tall.
	80	= Total Cover	
oody Vine Stratum (Plot size:	,		of size, and woody plants less than 3.28 ft tall.
NONE STRAIGHT			of size, and woody plants less than 3.20 it tall.
2			
h			Woody Vines - All woody vines greater than 3.28 ft in
			height.
		= Total Cover	
			Hydrophytic
			Vegetation
			Present? Yes No V
egetation Remarks: (Include photo numbers here or on a	separate sheet).		LI.
Holand Vea 15 da	-Annana		
Upland veg 15 do	vnivialit.		
,			

Depth Matrix (inches) Color (mpist)  - 14 IOYR 4 3	% <u> </u>	olor (moist)	Redox Feature	Type <sup>1</sup>	Loc <sup>2</sup>	Sil-loam	Remarks
-					-	-	
					_		
	<del></del>						
e: C=concentration, D=Depletion, RN	M=Reduced Matri	, MS=Masked S	and Grains.			<sup>2</sup> Location: PL=Pore Lir	ing, M=Matrix.
ric Soil Indicators:						Indicators for Problem	
Histosol (A1)		Dark Surface (S7	)			2 cm Muck (A10)	
Histic Epipedon (A2)		Polyvalue Below	-	(MLRA 147,	148)		ox (A16) (MLRA 147, 148)
Black Histic (A3)	=	Thin Dark Surfac	e (S9) <b>(MLRA</b>	4 147, 148)		Piedmont Floodpla	ain Soils (F19)
Hydrogen Sulfide (A4)		oamy Gleyed Ma				(MLRA 136, 147)	
Stratified Layers (A5)		Depleted Matrix (	· ·			Very Shallow Dark	
2 cm Muck (A10) (LRR N)		Redox Dark Surfa				Other (Explain in f	Remarks)
Depleted Below Dark Surface (A11) Thick Dark Surface (A12)		Depleted Dark Su Redox Depressio					
Sandy Mucky Mineral (S1) (LRR N,		ron-Manganese		LRR N. ML	RA 136)		
MLRA 147,148)		Jmbric Surface (I			,		
Sandy Gleyed Matrix (S4)		Piedmont Floodpl	lain Soils (F1	9) <b>(MLRA 14</b>	8)		
Sandy Redox (S5)		Red Parent Mater	rial (F21) (ML	RA 127, 147	)		
Stripped Matrix (S6)							
<sup>3</sup> Indicators of hydrophytic vegetation a	and wetland hydr	ology must be pro	esent, unless	disturbed or	problema	tic.	
trictive Layer (if observed):							
Type:				Hydri		w. \/	
Depth (inches):				-	Soil Pres	sent? Yes	No
Description Remarks:	. 0.1	1		- 1			
Hydr	ric Soils	are not	pres	ent.			
1140	10 0000		7.00	2311			

WETLAND DETERMINATION DATA FO	-1.1
Project/Site: Ross Ginger City	/County: 8055 Co Sampling Date: 8/1/2017
Applicant/Owner:	State: OH Sampling Point: NOO4 - PEM - CATI
Investigator(s):	Section, Township, Range: Springfield Twy
Landform (hilslope, terrace, etc.):	Local relief (concave, convex, none): <u>Concave</u> Slope (%) <u>0 /</u> 43283 Long: -883,90463142 Datum: NAD 83
1 2 1 - 1 - 1 - 2 - 2 A la 2 - 0/ C	10-0-0
Soil Map Unit Name: Net - Net 100 100 100 100 100 100 100 100 100 10	Yes No (If no, explain in Remarks)
Are Vegetation 100, Soil 100, or Hydrology 100 significantly disturbed	
Are Vegetation No, Soil No, or Hydrology naturally problemat	
SUMMARY OF FINDINGS - Attach site map showing	sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes / No	
	s the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	
Remarks: Wetternol data point for WOOT-F Doltapoint taken in maintained	PEM-CATI (PEM)
	1 · · · · · · · · · · · · · · · · · · ·
Doltapoint taken in maintained	transmission Kow
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is 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 (6)	Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizospheres of	n Living Roots (C3) Moss Trim Lines (B16)
Water Marks (B1) Presence of Reduced Iro	n (C4) Dry-Season Water Table (C2)
Sediment Deposits (B2) Recent Iron Reduction in	
Drift Deposits (B3) Thin Muck Surface (C7)	Saturation Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Other (Explain in Remark	
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)	Shallow Aquitard (D3)  /Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	5011
Surface Water Present? Yes V No Depth (inches):	· AU
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No
(includes capillary ininge)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ons), if available:
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspect	ons), if available:
Pemarke,	
Pemarke,	
Pemarke,	
Pemarke'	
Pemarke,	
Pemarke'	
Pemarke'	
Pemarke,	

	= Total Cover  Fach Rob N Ob N Ob	Number of Dominant Species That Are OBL, FACW, or FAC:  Total Number of Dominant Species Across All Strata:  Percent of Dominant Species That Are OBL, FACW, or FAC:  Prevalence Index worksheet:  Total % Cover of:  Multiply by:  OBL species
0 30 20 55 5	= Total Cover  Fach Fach Obl	Across All Strata:    Percent of Dominant Species That Are OBL, FACW, or FAC:
0 30 20 5 5 5	= Total Cover  Fach Fach Obl	OBL, FACW, or FAC:    Prevalence Index worksheet:   Total % Cover of:   Multiply by:
0 30 20 5 5 5	= Total Cover  Fach Fach Obl	Total % Cover of:  OBL species  FACW species  FAC species  FAC species  FACU species  FACU species  Column Totals:  1 - Rapid Test for Hydrophytic Vegetation  2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹  4 - Morphological Adaptations¹ (Provide supporting the fact of
0 30 20 5 5 5	= Total Cover  Fach Fach Obl	OBL species
0 30 20 5 5 5	= Total Cover  Fach Rob N Ob N Ob	FACW species
0 30 20 5 5 5	= Total Cover  Fach Rob N Ob N Ob	FACU species
0 30 20 5 5 5	= Total Cover  Fach Fach Obl	UPL species x 5 =  Column Totals: (A)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
0 30 20 5 5 5	= Total Cover  Fach Pach NObl	Column Totals: (A)  Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
0 30 20 15 15	Fach Fach N Obl	Prevalence Index = B/A =  Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
0 30 20 15 15	Fach Fach N Obl	Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
0 30 20 5 15	Fach Fach N Obl	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
	Fach Fach N Obl	3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide support data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
	Fach Fach N Obl	4 - Morphological Adaptations¹ (Provide suppor data in Remarks or on a separate sheet)  Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more
	Fach Obl	data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
	Fach Obl	Problematic Hydrophytic Vegetation¹ (Explain)  ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
	TACK NODE	t Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
	N 061	be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
	N 061	Definitions of Vegetation Strata:  Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
		Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or mo
		-11
		- 1
-		Sapling/Shrub- Woody plants, excluding vines, less than 3 DBH and greater than or equal to 3.28 ft (1 m) tall.
80	= Total Cover	BBT and greater than or equal to 0.20 ft (1 m) tail.
		Herb - All herbaceous (non-woody) plants, regardless
		of size, and woody plants less than 3.28 ft tall
		Woody Vines - All woody vines greater than 3.28 ft in
		height.
_		
0	= Total Cover	
		Hydrophytic
		Vegetation
		Present? Yes No
neet).		11.
NSCO	< the dom	unanco test
M3C	,5 ( )(11)	William Control
F (	O heet). USS C	

(inches)	Matrix		-	Redox Featu			-			
	Color (moist)	<u>%</u>	Color (moist)	%	Type <sup>1</sup>	Loc²	Texture Remarks			
)-5 >-110	70173/1	100	10YR446	70		PL	San Identina			
FIQ (	DIAL DIN	200	1041710	40		PC	Sandyclayloum			
		-			-					
					-	-				
		-								
ype: C=concent	tration, D=Depletion, I	RM=Reduc	ed Matrix, MS=Masked	Sand Grains			<sup>2</sup> Location; PL=Pore Lining, M=Matrix.			
	VALUE OF THE OWNER.									
ydric Soil Indica	ators:						Indicators for Problematic Hydric Solls <sup>3</sup> :			
Histosol (A1)			Dark Surface (S				2 cm Muck (A10) (MLRA 147)			
Histic Epiped			Polyvalue Belo				Coast Prairie Redox (A16) (MLRA 147, 148)			
Black Histic ( Hydrogen Su			Thin Dark Surfa		RA 147, 148	)	Piedmont Floodplain Soils (F19) (MLRA 136, 147)			
Stratified Lay			Depleted Matrix			Very Shallow Dark Surface (TF12)				
	A10) (LRR N)		Redox Dark Su			Other (Explain in Remarks)				
Depleted Bel	ow Dark Surface (A11	1)	Depleted Dark	Surface (F7)						
Thick Dark S	, ,		Redox Depress							
MLRA 147,14	y Mineral (S1) <b>(LRR N</b> <b>48</b> 1	•	Iron-Manganes Umbric Surface			MLRA 136)				
Sandy Gleyer	· ·		Piedmont Floor			148)				
Sandy Redox	(S5)		Red Parent Ma	terial (F21) (N	ILRA 127, 1	47)				
_ Stripped Mate	rix (S6)									
<sup>3</sup> Indicators of	hydrophytic vegetatio	n and wetla	and hydrology must be	present, unle	ss disturbed	or problema	atic.			
estrictive Laye	er (if observed):					1				
Type:						Hydr	ric ,			
Depth (inches	s):					Soil Present? Yes No				
Soil Description	Remarks:	dsF3	)			Soil Pre	sent? Yes No			

- 0:	FORM - Eastern Mountains and Piedmont Region
Project/Site: Koss-Challer	City/County: Ross Co. Sampling Date: 8/1/2017
Applicant/Owner:	State: Sampling Point: WOOY-PEM - CATI-UP
Investigator(s):	Section, Township, Range: Springfield Twp
Landform (hilslope, terrace, etc.):	Local relief (concave, convex, none): YWW Slope (%)
	826 30143 Long: -82.90459128 Datum: NAD 83
Soil Map Unit Name: NCEZ-Negley loam, 20to 35% Slo	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year?	Yes No (If no, explain in Remarks)
Are Vegetation $\underbrace{nb}_{0}$ , Soil $\underbrace{nb}_{0}$ , or Hydrology $\underbrace{nb}_{0}$ significantly distributions	
Are Vegetation $\underline{nv}$ , Soil $\underline{nv}$ , or Hydrology $\underline{nv}$ naturally problem	
SUMMARY OF FINDINGS - Attach site map show	ing sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No V	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?
Wetland Hydrology Present? Yes No	· · · · · · · · · · · · · · · · · · ·
Data point taken at edge of	naintained Transmission ROW
HYDROLOGY	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required, check all that apply)	Surface Soil Cracks (B6)
Surface Water (A1) True Aquatic Plants (I	Sparsely Vegetated Concave Surface (B8)
High Water Table (A2) Hydrogen Sulfide Ode	or (C1) Drainage Patterns (B10)
Saturation (A3) Oxidized Rhizosphere	s on 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	
Drift Deposits (B3) Thin Muck Surface (C	
Algal Mat or Crust (B4) Other (Explain in Rem	
Iron Deposits (B5)	Geomorphic Position (D2) Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)  Water-Stained Leaves (B9)	Microtopographic Relief (D4)
Aquatic Fauna (B13)	FAC-Neutral Test (D5)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	<del></del>
Water Table Present? Yes No Depth (inches):	
Saturation Present? Yes No Depth (inches):	Wetland Hydrology Present? Yes No
(includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous insp	ections), if available:
Remarks:	ive not record
wetland hydrology Indicators of	CAC HOT PROGIT
. 01	

Tree Stratum (Plot size: 30'	Absolute ) % Cover	Dominant Indicator Species? Status	Dominance Test worksheet:
1. Acer saccharum	30	V FacU	Number of Dominant Species That Are OBL_FACW, or FAC:  (A)
2.			Total Number of Dominant Species
3			Total Number of Dominant Species Across All Strata:  (B)
4			Percent of Dominant Species That Are 375/
5. 6.			OBL, FACW, or FAC:
7.			Prevalence Index worksheet:
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15'	_) ,_		FACW species x 2 =
1 Lindera benzoin	15	+ac	FAC species x 3 =
2. ProsamuH. Hara 3. Aren salacharum	- 13	Fact	FACU species x 4 =
4		1000	Column Totals: (A) (B)
5			
6 <sub></sub>		-	Prevalence Index = B/A =
8			Hydrophytic Vegetation Indicators:
9			1 - Rapid Test for Hydrophytic Vegetation
10	40	= Total Cover	2 - Dominance Test is >50%  3 - Prevalence Index is ≤3.0¹
61			4 - Morphological Adaptations <sup>1</sup> (Provide supporting
Herb Stratum  1. Pika pumila (Plot size: 5)	_1 16	y fact	data in Remarks or on a separate sheet)
2. Impatiens capensis	15	Fach	Problematic Hydrophytic Vegetation¹ (Explain)
3. Alliana petiblata.	15	FacV	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
4. Polystichum acrostichoides	15_	y Facu	be present, unless disturbed or problematic.
5			Definitions of Vegetation Strata:
7			Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in
θ			diameter.
9		$\leftarrow$	
11			Sapling/Shrub- Woody plants, excluding vines, less than 3 in.
12	1.0		DBH and greater than or equal to 3.28 ft (1 m) tall.
	<u>(Q()</u>	= Total Cover	
201			Herb - All herbaceous (non-woody) plants, regardless
Woody Vine Stratum (Plot size: 30'	)		of size, and woody plants less than 3.28 ft tall.
1. NMC			
3.			Woody Vines - All woody vines greater than 3.28 ft in
4			height.
5			
	0	= Total Cover	
			Hadamata da
			Hydrophytic Vegetation
			Present? Yes No V
Vegetation Remarks: (Include photo numbers here or on a sep-	arate sheet\		
			3
Upland veg is domina,	at		
opinion my to serving	111		

Black Histic (A3) Thin Dark Sur Hydrogen Sulfide (A4) Loamy Gleyec Stratified Layers (A5) Depleted Matr 2 cm Muck (A10) (LRR N) Redox Dark S	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  priedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Cm Muck (A10) (LRR N) Depleted Below Dark Surface (A11)  Dark Surface Polyvalue Belom Dark Surface (A11)  Dark Surface Polyvalue Belom Dark Surface (A11)  Dark Surface	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  dd Matrix (F2)  wtrix (F3)  Surface (F6)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11)  Dark Surface Polyvalue Belom Dark Surface Polyvalue Belom Dark Surface (A11)  Dark Surface Polyvalue Belom Dark Surface (A11)	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  dd Matrix (F2)  wtrix (F3)  Surface (F6)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
ric Soil Indicators:  Histosol (A1) Dark Surface Histic Epipedon (A2) Polyvalue Belack Histic (A3) Thin Dark Surface Hydrogen Sulfide (A4) Loamy Gleyed Stratified Layers (A5) Depleted Matr 2 cm Muck (A10) (LRR N) Redox Dark S Depleted Below Dark Surface (A11) Depleted Dark	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  dd Matrix (F2)  wtrix (F3)  Surface (F6)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
ric Soil Indicators:  Histosol (A1) Dark Surface Histic Epipedon (A2) Polyvalue Belack Histic (A3) Thin Dark Surface Hydrogen Sulfide (A4) Loamy Gleyed Stratified Layers (A5) Depleted Matr 2 cm Muck (A10) (LRR N) Redox Dark S Depleted Below Dark Surface (A11) Depleted Dark	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  dd Matrix (F2)  wtrix (F3)  Surface (F6)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
ric Soil Indicators:  Histosol (A1) Dark Surface Histic Epipedon (A2) Polyvalue Belack Histic (A3) Thin Dark Surface Hydrogen Sulfide (A4) Loamy Gleyed Stratified Layers (A5) Depleted Matr 2 cm Muck (A10) (LRR N) Redox Dark S Depleted Below Dark Surface (A11) Depleted Dark	Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  dd Matrix (F2)  wtrix (F3)  Surface (F6)  Indicators for Problematic Hydric Soils <sup>3</sup> :  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
Histosol (A1)  Dark Surface  Polyvalue Beld  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  Com Muck (A10) (LRR N)  Depleted Below Dark Surface (A11)  Dark Surface  Polyvalue Beld  Loamy Gleyer  Depleted Matr	2 cm Muck (A10) (MLRA 147)  clow Surface (S8) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  ed Matrix (F2)  trix (F3)  Surface (F6)  2 cm Muck (A10) (MLRA 147)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
Histic Epipedon (A2)  Black Histic (A3)  Hydrogen Sulfide (A4)  Stratified Layers (A5)  2 cm Muck (A10) (LRR N)  Depleted Below Dark Surface (A11)  Polyvalue Below  Thin Dark Surface (A2)  Loamy Gleyer  Depleted Matr	Coast Prairie Redox (A16) (MLRA 147, 148)  urface (S9) (MLRA 147, 148)  ed Matrix (F2)  urtix (F3)  Surface (F6)  Coast Prairie Redox (A16) (MLRA 147, 148)  Piedmont Floodplain Soils (F19)  (MLRA 136, 147)  Very Shallow Dark Surface (TF12)  Other (Explain in Remarks)
MLRA 147,148)  Sandy Gleyed Matrix (S4)  Umbric Surface Piedmont Floor	essions (F8) lesse Masses (F12) (LRR N, MLRA 136) lese (F13) (MLRA 136, 122) lese (F13) (MLRA 136, 122) lese (F13) (MLRA 148) lese (F13) (MLRA 147)
strictive Layer (if observed):	
Type:  Depth (inches):	Hydric Soil Present? Yes No
il Description Remarks:	

Project/Site: ROSS-Ginger		City/County:	ROSS	.Co.	Sampling Date: 8	3/2017
Applicant/Owner: AEP				State: OH	Sampling Point: W	006-PEM
Investigator(s): KLV		Section, Tow	nship, Ra	inge:Springfield T	wp-	
Landform (hillslope, terrace, etc.): DIO		L	ocal relief	(concave, convex, none):	concave	
Slope (%): 0   Lat: 39.3461194		ong: -82	2.941	34491	Datum: NAD 8	3
Soil Map Unit Name: NCEZ-Ncgloy loam, 20					ation: PUBGh	
Are climatic / hydrologic conditions on the site typical for this			/ No	(If no, explain in R	1,500	
Are Vegetation 100, Soil 100, or Hydrology 10 s	•			"Normal Circumstances"	/	, No
Are Vegetation NO , Soil NO , or Hydrology NO r				eded, explain any answe	•	- 110
SUMMARY OF FINDINGS – Attach site map						ures. etc.
/	lo		Point		,,	
	lo	Is the	Sampled	l Area	/	
Wetland Hydrology Present? Yes N	lo	withir	n a Wetlar	nd? Yes <u>V</u>	No	
Remarks: We Hand data point for W	006-PEI	M-CATI	(PE	M).		
Data point taken in Yeside	1 - 0					
VEGETATION – Use scientific names of plants.			1			
30	Absolute	Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: 301 )		Species?	Status	Number of Dominant S That Are OBL, FACW,		(A)
2		_		Total Number of Domir		(B)
4				Species Across All Stra	ita.	(b)
5.				Percent of Dominant S That Are OBL, FACW,		(A/B)
151	0	= Total Cove	er			(/45)
Sapling/Shrub Stratum (Plot size: 15')				Prevalence Index wor		
1. none	-			Total % Cover of: OBL species		
2				FACW species		
3			_		x3=	
4	-			FACU species		
-1	0	= Total Cove	er		x 5 =	
Herb Stratum (Plot size: 5)			21 T	Column Totals:	(A)	(B)
1. Typha x glauca	25	4	06		-	
2. Leersia Joryzoides	35	4	001		= B/A =	_
3. Scirpus atroviens	10	N	001	Hydrophytic Vegetati		20
4. Eupatorium partoliatum	_10_		Obl	2 - Dominance Tes		JII
5	-		_	3 - Prevalence Ind		
6				1 —	Adaptations¹ (Provide	supporting
7 8.					s or on a separate sh	
9.				Problematic Hydro	phytic Vegetation¹ (E	xplain)
10.						
	80	= Total Cove	ər	<sup>1</sup> Indicators of hydric so be present, unless dist		
Woody Vine Stratum (Plot size: 30')	-			Do prosont, amous and		-
1. None	_		_	Hydrophytic	1	
2	-			Vegetation Present? Ye	s No	
Provide Hall de abite attaches 6200		= Total Cove			,	
Remarks: (Include photo numbers here or on a separate with and veg is present passes	sheet.)	ad La	+ and	dominance to	St.	
Withand veg is present posses	O THE TO	yry to	) C VII CE			
U						

Profile Desc	cription: (Describe	to the de	oth needed to doc	ument the	indicator or cor	ofirm the abs	ence o	f indicators.)		
Depth	Matrix	10 1110 40		dox Feature						
(inches)	Color (moist)	%	Color (moist)	%	Type¹ Loc	<sup>2</sup> Textu	re	Remarks		
D-10	IDNR 311	80	10VR 414	20		Clark	nm			
<u> </u>	To prof.		10 113 11 1				241.			
	-	-								
	-	-	-	-		_				
		-				_				
	-	-								
		-								
		_								
	oncentration, D=Der	pletion, RN	1=Reduced Matrix, N	MS=Masked	d Sand Grains.			PL=Pore Lining, M=Matrix.		
Hydric Soil								or Problematic Hydric Soils <sup>3</sup> :		
_	Histosol (A1)			Gleyed Ma		_		rairie Redox (A16)		
	pipedon (A2) istic (A3)			/ Redox (S5 ed Matrix (S	•	_		rface (S7) nganese Masses (F12)		
_	en Sulfide (A4)			y Mucky Mir				allow Dark Surface (TF12)		
	d Layers (A5)			y Gleyed Ma			•	xplain in Remarks)		
	uck (A10)		1,000 000,000	ted Matrix (		_				
Depleted	d Below Dark Surfac	ce (A11)		Dark Surfa						
Thick Da	ark Surface (A12)		Deple					<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present,		
Sandy M	fucky Mineral (S1)		Redox							
5 cm Mucky Peat or Peat (S3)								unless disturbed or problematic.		
		-				u	niess a			
	Layer (if observed)	-				U	niess a			
Restrictive I	Layer (if observed)	-	_							
Restrictive I	Layer (if observed)	-	_					resent? Yes No		
Restrictive I	Layer (if observed)	:								
Restrictive I Type: Depth (inc	Layer (if observed)	:								
Restrictive I Type: Depth (inc	Layer (if observed)	:								
Restrictive I Type: Depth (inc	Layer (if observed)	:								
Restrictive I Type: Depth (inc	Layer (if observed)	:								
Restrictive I Type: Depth (inc	ches):	:								
Restrictive I Type: Depth (inc Remarks:	ches):	: 15 F3.								
Type:	Ches):  Mcct  GY  drology Indicators: cators (minimum of c	: : : : :	ired; check all that a	apply)		Hydric	: Soil P			
Type:	ches):  Mcct  GY  drology Indicators:	: : : : :		apply)	es (B9)	Hydric	Soil P	resent? Yes No		
Type:	Ches):  Mcct  GY  drology Indicators: cators (minimum of c	: : : : :	Water-St			Hydric	condary Surface	resent? Yes No		
Type:	GY drology Indicators: actors (minimum of co	: : : : :	Water-St	lained Leav	)	Hydric	condary Surface Drains	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)		
Restrictive I Type: Depth (inc Remarks:  IYDROLO Wetland Hye Primary Indic Surface High Wa Saturatio	GY drology Indicators: actors (minimum of co	: : : : :	Water-St Aquatic F True Aqu Hydroge	tained Leav Fauna (B13 uatic Plants n Sulfide O	) (B14) dor (C1)	Hydric	condan Surfac Drains Dry-S Crayfi	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8)		
Type:	GY drology Indicators: cators (minimum of c Water (A1) iter Table (A2) on (A3)	: : : : :	Water-St Aquatic F True Aqu Hydroge	tained Leav Fauna (B13 uatic Plants n Sulfide O	) (B14)	Hydric	condan Surfac Draina Dry-S Crayfi	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9)		
Type:	GY drology Indicators: eators (minimum of of the control of the co	: : : : :	Water-Si Aquatic F True Aqu Hydroge Oxidized Presence	tained Leav Fauna (B13 uatic Plants n Sulfide Oo Rhizosphe e of Reduce	(B14) dor (C1) res on Living Ro d Iron (C4)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) add or Stressed Plants (D1)		
Type:	GY drology Indicators: cators (minimum of of the cators (Minimum of of	: : : : :	— Water-Si — Aquatic I — True Aqu — Hydrogei — Oxidized — Presencei — Recent I	tained Leav Fauna (B13 uatic Plants n Sulfide Oo l Rhizosphe e of Reduce ron Reducti	) (B14) dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		
Restrictive   Type:	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	SF3.	Water-Si Aquatic F True Aqu Hydroge Voxidized Presence Recent II	tained Leav Fauna (B13 uatic Plants In Sulfide Ool Rhizosphe e of Reduce ron Reducti ck Surface (	) (B14) dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) add or Stressed Plants (D1)		
Restrictive   Type:	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial	is F3.	— Water-Si — Aquatic I — True Aqu — Hydrogei — Oxidized — Presencei — Recent II — Thin Muc	tained Leav Fauna (B13 uatic Plants n Sulfide Od I Rhizosphe e of Reduce ron Reducti ck Surface ( r Well Data	) (B14) (dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7) (Q9)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		
Restrictive   Type:	GY drology Indicators: cators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	is F3.	— Water-Si — Aquatic I — True Aqu — Hydrogei — Oxidized — Presencei — Recent II — Thin Muc	tained Leav Fauna (B13 uatic Plants In Sulfide Ool Rhizosphe e of Reduce ron Reducti ck Surface (	) (B14) (dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7) (Q9)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		
Restrictive   Type:	GY  drology Indicators: eators (minimum of of the context of the c	is F3.	— Water-Si — Aquatic F — True Aqu — Hydroge — Voxidized — Presence — Recent II — Thin Muc B7) — Gauge o (B8) — Other (E	tained Leav Fauna (B13 uatic Plants in Sulfide Or Rhizosphe e of Reduce ron Reducti ck Surface ( ir Well Data xplain in Re	) (B14) (dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7) (Q9)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		
Restrictive I Type: Depth (inc Remarks:  IYDROLO Wetland Hyd Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatid Sparsely	GY  drology Indicators: eators (minimum of of the context of the c	is F3.	— Water-Si — Aquatic F — True Aqu — Hydroge — Voxidized — Presence — Recent II — Thin Muc B7) — Gauge o (B8) — Other (E	tained Leav Fauna (B13 uatic Plants n Sulfide Od I Rhizosphe e of Reduce ron Reducti ck Surface ( r Well Data	) (B14) (dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7) (Q9)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		
Restrictive I Type: Depth (inc Remarks:  IYDROLO Wetland Hyd Primary Indic Surface High Water M Sedimer Drift Dep Algal Ma Iron Dep Inundatic Sparsely	GY drology Indicators: cators (minimum of of the cators (minimum of of of the cators (minimum of of of the cators (minimum of of of of of the cators (minimum of	Imagery (Fe Surface	Water-Si Aquatic F True Aqu Hydroget Voxidized Presencet Recent In Thin Muc B7) Gauge o (B8) Other (E:	tained Leav Fauna (B13 uatic Plants in Sulfide Or Rhizosphe e of Reduce ron Reducti ck Surface ( ir Well Data xplain in Re	) (B14) (dor (C1) res on Living Ro ed Iron (C4) on in Tilled Soils (C7) (Q9)	Hydric Ser	condan Surfac Draina Dry-S Crayfi Satura Stunte Geom	v Indicators (minimum of two requirece Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)		

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

Remarks: Wetland hydrology Indicators are Al, A3, C3, D2 and D5.

(includes capillary fringe)

Project/Site: B&SS Gmar	City/	County Russ	Co.	Sampling Date: 8/3/2017
Applicant/Owner: ALP				Sampling Point: WOOG- PEM-C
VIV	Sect	ion Township Re		wp.
Landform (hillslope, terrace, etc.):	Sect		(concave, convex, none):	F 1 1 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
Slope (%): 0 L Lat: 39,344,0499			586/2	
Soil Map Unit Name: N= 12-Ng ly loam 20				
		/		
Are climatic / hydrologic conditions on the site typical for				
Are Vegetation No., Soil No., or Hydrology No.			"Normal Circumstances" pr	esent? Yes No
Are Vegetation 10 Soil 10, or Hydrology 10	_ naturally problem	atic? (If ne	eeded, explain any answers	s in Remarks.)
SUMMARY OF FINDINGS - Attach site ma	p showing sar	npling point l	ocations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes	No_V			
Hydric Soil Present? Yes		Is the Sampled		No/
Wetland Hydrology Present? Yes		within a Wetlar	na? Yes	NO V
Remarks: Upland data point for u	JOOG-PEM	-CATI		
Data point taken in ve	sidential	property.		
VEGETATION - Use scientific names of plant	ts.			
Tree Stratum (Plot size: 301		minant Indicator	Dominance Test works	heet:
1. NMC		ecies? Status	Number of Dominant Sp That Are OBL, FACW, or	1.1
2 3			Total Number of Domina Species Across All Strate	/
4 5.			Percent of Dominant Spe	
	= To	tal Cover	That Are OBL, FACW, or	r FAC: (A/B)
Sapling/Shrub Stratum (Plot size: 15')		tui oovo.	Prevalence Index work	sheet:
1. nonc			Total % Cover of:	Multiply by:
2			,	x1=
3				× 2 =
4				x3=
5				x 4 =
Herb Stratum (Plot size:)		tal Cover		(A) (B)
1. Pod pratensis		1 FacU	Columni Totals.	(0)
2. Oxalis Stricta	20 v	FacU	Prevalence Index	= B/A =
3. Taraxacum officinale	10 1	Facu	Hydrophytic Vegetation	n Indicators:
4				ydrophytic Vegetation
5			2 - Dominance Test	
6			3 - Prevalence Index	
7			4 - Morphological Adda in Remarks	daptations <sup>1</sup> (Provide supporting or on a separate sheet)
8		-		hytic Vegetation¹ (Explain)
9			,	(
10,	120 -		<sup>1</sup> Indicators of hydric soil	and wetland hydrology must
Woody Vine Stratum (Plot size: 30 )	100 = To	tal Cover	be present, unless distur	
1. none			Hydrophytic	
2.			Vegetation	. /
	^	tal Cover	Present? Yes	No <u>\</u>
Remarks: (Include photo numbers here or on a separat	e sheet.)			
Upland rug is present				
) . , ,				

ing, M=Matrix. tic Hydric Soils³: (A16)  sees (F12) urface (TF12) marks)  c vegetation and ust be present, roblematic
/es No
minimum of two require
is (B6) (B10) r Table (C2) (C8) on Aerial Imagery (C9) ed Plants (D1) ion (D2) (D5)
k r (

oject/Site: Ross Ginger		City/Count	y: <u>Ross</u>	
pplicant/Owner: ALP				State: Sampling Point: W007-PF
vestigator(s):		Section, T		nge: Springfield Twp
andform (hillslope, terrace, etc.):				concave, convex, none):
ope (%): 01 Lat: 39.3484551		Long:	32,948	68404 Datum: NAD 83
il Map Unit Name: CWE-Cruzc SIH ladm	20 103	21. 218	pes	NWI classification: PSSIA
e climatic / hydrologic conditions on the site typical for	this time of ye	ar? Yes	No	(If no, explain in Remarks.)
e Vegetation <u>NO</u> , Soil <u>NO</u> , or Hydrology <u>NO</u>	_ significantly	disturbed?	Are "	Normal Circumstances" present? Yes No
Vegetation NO , Soil NO , or Hydrology NO	_ naturally pro	blematic?	(If ne	eded, explain any answers in Remarks.)
JMMARY OF FINDINGS - Attach site ma	p showing	sampli	ng point l	ocations, transects, important features, etc
ydrophytic Vegetation Present? Yes	No	- 15	t - 0 t - d	
lydric Soil Present? Yes	No		he Sampled	
Vetland Hydrology Present? Yes	No		hin a Wetlan	
emarks: Wetland data point fin	W007-P	FO-CA	TZ(P	0).
Data point taken in 1				
19 delet have		tion G		
GETATION - Use scientific names of plan	ts.			
ree Stratum, (Plot size: 30'	Absolute % Cover		t Indicator	Dominance Test worksheet:
Populus de Haides	76 Cover	Species?	Fac	Number of Dominant Species That Are OBL, FACW, or FAC: (A)
Platanus oxidentalis	20	7	Fach	THE CALE OBL, FACW, OF FAC.
Accrsaccharinum	10	1	Facu	Total Number of Dominant Species Across All Strata:  (B)
ACC SO STORY MICHIEF				Opecies Across Ari Otrata.
				Percent of Dominant Species That Are OBL, FACW, or FAC:
le l	45	= Total Co	over	That Ale OBE, I ACW, OT AC (ACB)
pling/Shrub Stratum (Plot size: 15')			Carrie I	Prevalence Index worksheet:
Lindera benzoin	_ 15	4	tach	Total % Cover of: Multiply by:
			_	OBL species x1 =
		-		FAC opposites x 2 =
				FACU species x 4 =
	15	= Total Co		UPL species x 5 =
rb Stratum (Plot size: 5')	12	- Total CC	over	Column Totals: (A) (B)
Microstegium vimineum	_10_	V	Fac	V.,
Importient capensis	10	1	FacW	Prevalence Index = B/A =
Pila pumila	20	Y	Fach	Hydrophytic Vegetation Indicators:
			-	2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹
			-	
			-	<ul> <li>4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)</li> </ul>
			-	Problematic Hydrophytic Vegetation¹ (Explain)
	TUN	= Total Co		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
ody Vine Stratum (Plot size: 301 )		- TOTAL CO	7401	be present, unless disturbed or problematic.
none		_		Hydrophytic
				Vegetation /
				Present? Yes V No
marks: (Include photo numbers here or on a separate Wettand veg 15 dominant		= Total Co		

20	ì	1
JU	ı	ᆫ

Depth	Matrix			dox Feature		1 . 2	T	Demodes
inches) (	Color (moist)	100	Color (moist)	%	Type <sup>1</sup>	Loc²	S. L. Jackson	Remarks
F10 101	KOL	- KM	1/1				Sittladm	
0+6 10	41412	90	104R414	_ 10		PL	Claylodn	1
		_	-					
		eletion, RM	I=Reduced Matrix, I	VIS=Maske	d Sand Gr	ains.		PL=Pore Lining, M=Matrix.
dric Soil Indic	ators:				(0.1)			or Problematic Hydric Soils <sup>3</sup> :
_ Histosol (A1)	(40)			Gleyed M			_	rairie Redox (A16) rface (S7)
<ul><li>Histic Epiped</li><li>Black Histic (a</li></ul>				/ Redox (S: ed Matrix (	-			nace (57) nganese Masses (F12)
Hydrogen Sul	•			y Mucky Mi	•		_	allow Dark Surface (TF12)
Stratified Lay	' '			y Gleyed M				xplain in Remarks)
2 cm Muck (A				ted Matrix				
_ '	ow Dark Surfac	e (A11)		Dark Surf				
_ Thick Dark St		` ,		ted Dark S		)	<sup>3</sup> Indicators o	f hydrophytic vegetation and
Sandy Mucky	Mineral (S1)		Redox	c Depressio	ons (F8)			hydrology must be present,
	Peat or Peat (S						unless d	isturbed or problematic.
strictive Layer	(if observed):							
Туре:							Hydric Soil P	resent? Yes \ No
Depth (inches)							Tiyane con t	163 <u>1</u> 103 <u>1</u> 10
emarks:	Mec	b F3	),					
DROLOGY			),					
DROLOGY etland Hydrolo	gy Indicators:		ired; check all that	apply)			Secondar	√ Indicators (minimum of two require
DROLOGY etland Hydrolo	gy Indicators:		ired; check all that a	apply)	ves (B9)			/ Indicators (minimum of two require ce Soil Cracks (B6)
DROLOGY etland Hydrolo imary Indicators	gy Indicators: : (minimum of c		i <u>ired: check all that a</u>				Surfa	
DROLOGY etland Hydrolo imary Indicators _ Surface Wate	gy Indicators: (minimum of c r (A1) able (A2)		i <u>ired; check all that a</u> — Water-Si  — Aquatic l	lained Leav	3)		Surfa	ce Soil Cracks (B6)
DROLOGY etland Hydrolo imary Indicators  Surface Wate High Water Ta	gy Indicators: (minimum of cor (A1) able (A2)		ired; check all that a — Water-Si — Aquatic I — True Aqu	lained Leav Fauna (B13	3) s (B14)		Surface Drain: Dry-S	ce Soil Cracks (B6) age Patterns (B10)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta	gy Indicators: 6 (minimum of control of con		ired: check all that a Water-Si Aquatic I True Aqu	tained Leav Fauna (B13 uatic Plants	3) 5 (B14) 9dor (C1)	ring Roots	Surfa Draine Dry-S Crayfi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) posits (B2)		ired: check all that a  Water-Si Aquatic I True Aqu Hydroge	tained Leav Fauna (B13 uatic Plants n Sulfide O	3) s (B14) odor (C1) eres on Liv	•	Surfar Drains Dry-S Crayfi (C3) Satur	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment De	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) cosits (B2) (B3)		ired; check all that a  Water-Si Aquatic I True Aqu Hydroge V Oxidized Presence	lained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe	3) s (B14) dor (C1) ares on Liv ed Iron (C4	4)	Surfar Drain: Dry-S Crayfi (C3) Saturi	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9)
DROLOGY etiand Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4)		ired: check all that a — Water-Si — Aquatic I — True Aquatic I — Hydroge — Oxidized — Presence — Recent I	lained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduc	3) s (B14) odor (C1) ares on Liv ed Iron (C4 lion in Tille	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4)	one is requ	ired: check all that a — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Mu	lained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduct ron Reduct	B)  (B14)  (dor (C1)  eres on Liv  ed Iron (C4)  ion in Tille (C7)	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Vis	gy Indicators: (minimum of corr (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5)	ne is requ	ired: check all that a  Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc	tained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface	B) c (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9)	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Via	gy Indicators: (minimum of control (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) sible on Aerial I	magery (E Surface	water-Si — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Muc — Gauge of (B8) — Other (E	tained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Data xplain in Ro	B) c (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9)	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
etiand Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Via Sparsely Vegeld Observation	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave	magery (E Surface	ired; check all that a  Water-Si  Aquatic I  True Aqu  Hydroge  Oxidized  Presence  Recent I  Thin Muc  (B8)  Other (E	tained Leav Fauna (B13 uatic Plants in Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Data xplain in Re	B) c (B14) c (	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
DROLOGY etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Dep Drift Deposits Algal Mat or C Iron Deposits Inundation Vis Sparsely Vegeld Observation	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns:	magery (E Surface	water-Si — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Muc — Gauge of (B8) — Other (E	tained Leav Fauna (B13 uatic Plants in Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Data xplain in Re	B) c (B14) c (	4)	Surface Drain: Dry-S Crayfi (C3) Satura Stunt Geom	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
etiand Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Deposits Algal Mat or Ca Iron Deposits Inundation Vis Sparsely Vegeld Observation urface Water Presented	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ins:	magery (E Surface	ired: check all that a  Water-Si  Aquatic I  True Aqu  Hydroge  Oxidized  Presence  Recent I  Thin Muc  Gauge of  (B8)  Other (E	tained Leav Fauna (B13 uatic Plants in Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Data xplain in Re	B) c (B14) dor (C1) eres on Liv ed Iron (C4) ion in Tille (C7) a (D9) emarks)	4) od Soils (Co	Surface Drain: Dry-S Crayfi (C3) Satura Stunto FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) ish Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) norphic Position (D2)
rDROLOGY  retiand Hydrologimary Indicators  Surface Water High Water Tage Saturation (Asgentation of the content of the conten	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y fringe)	magery (Ee Surface	ired: check all that a  Water-Si Aquatic I True Aqu Hydroge Voxidized Presence Recent I Thin Muc (B8) Other (E	tained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches): inches):	B) G (B14) D (DO) G (B14) D (DO) G (B14) D (DO) G (B14) D (DO) G (DO)	4) d Soils (Co	Surface Drain: Dry-S Crayfi (C3) Saturate Stunto FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
Surface Water High Water Ta Saturation (A: Water Marks Sediment Deposits Algal Mat or Ca Iron Deposits Inundation Vis Sparsely Vegeld Observation Urface Water Presentation Pr	gy Indicators: (minimum of cor (A1) able (A2) 3) (B1) cosits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y fringe)	magery (Ee Surface	ired: check all that a  Water-Si Aquatic I True Aqu Hydroge Oxidized Presence Recent I Thin Muc Gauge of (B8) Other (E	tained Leav Fauna (B13 uatic Plants n Sulfide O I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches): inches):	B) G (B14) D (DO) G (B14) D (DO) G (B14) D (DO) G (B14) D (DO) G (DO)	4) d Soils (Co	Surface Drain: Dry-S Crayfi (C3) Saturate Stunto FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
PROLOGY Petland Hydrologimary Indicators Surface Water High Water Tage Saturation (A: Water Marks Sediment Deposits Algal Mat or Company Indicators Iron Deposits Inundation Viage Sparsely Vege Petel Observation Uniface Water Presentation P	gy Indicators: (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y ent? Y fringe) d Data (stream	magery (Ee Surface ee Surface gauge, m	water-Si — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Muc — Gauge o (B8) — Other (E  No Depth ( NoDepth ( No	tained Leav Fauna (B13 uatic Plants n Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches):	B) G(B14) Gdor (C1) Geres on Liv ed Iron (C4 Gion In Tille (C7) a (D9) emarks)	4) d Soils (Co	Surface Drain: Dry-S Dry-S Crayfi (C3) Saturt Stunt Geom FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Inundation Via Sparsely Vegeld Observation urface Water Presentation Presentaturation Presentaturation Presentaturation Recorde	gy Indicators: (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y ent? Y fringe) d Data (stream	magery (Ee Surface ee Surface gauge, m	water-Si — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Muc — Gauge o (B8) — Other (E  No Depth ( NoDepth ( No	tained Leav Fauna (B13 uatic Plants n Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches):	B) G(B14) Gdor (C1) Geres on Liv ed Iron (C4 Gion In Tille (C7) a (D9) emarks)	4) d Soils (Co	Surface Drain: Dry-S Dry-S Crayfi (C3) Saturt Stunt Geom FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
etland Hydrolo imary Indicators Surface Wate High Water Ta Saturation (A: Water Marks Sediment Deposits Algal Mat or C Iron Deposits Inundation Via Sparsely Vegeld Observation Irface Water Presented Table Presented Table Presented Secribe Recorder	gy Indicators: (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y ent? Y fringe) d Data (stream	magery (Ee Surface ee Surface gauge, m	ired: check all that a  Water-Si Aquatic I True Aqu Hydroge Voxidized Presence Recent I Thin Muc (B8) Other (E	tained Leav Fauna (B13 uatic Plants n Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches):	B) G(B14) Gdor (C1) Geres on Liv ed Iron (C4 Gion In Tille (C7) a (D9) emarks)	4) d Soils (Co	Surface Drain: Dry-S Dry-S Crayfi (C3) Saturt Stunt Geom FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)
PROLOGY Petland Hydrologimary Indicators Surface Water High Water Tage Saturation (A: Water Marks Sediment Deposits Algal Mat or Company Indicators Iron Deposits Inundation Viage Sparsely Vege Petel Observation Uniface Water Presentation P	gy Indicators: (minimum of or (A1) able (A2) 3) (B1) posits (B2) (B3) Crust (B4) (B5) sible on Aerial I elated Concave ns: esent? Y ent? Y fringe) d Data (stream	magery (Ee Surface ee Surface gauge, m	water-Si — Water-Si — Aquatic I — True Aqu — Hydroge — Oxidized — Presence — Recent I — Thin Muc — Gauge o (B8) — Other (E  No Depth ( NoDepth ( No	tained Leav Fauna (B13 uatic Plants n Sulfide C I Rhizosphe e of Reduct ron Reduct ck Surface or Well Date xplain in Re inches): inches): inches):	B) G(B14) Gdor (C1) Geres on Liv ed Iron (C4 Gion In Tille (C7) a (D9) emarks)	4) d Soils (Co	Surface Drain: Dry-S Dry-S Crayfi (C3) Saturt Stunt Geom FAC-	ce Soil Cracks (B6) age Patterns (B10) eason Water Table (C2) sh Burrows (C8) ation Visible on Aerial Imagery (C9) ed or Stressed Plants (D1) horphic Position (D2) Neutral Test (D5)

Project/Site: R655-Ginger		City/County	B055	Co	Sampling Date: 8 3 2017
Applicant/Owner: AEP				State: OH	Sampling Point: W007-PF0-
		Section To	woshin Ra	0 0 1	Tup.
Landform (hillslope, terrace, etc.): Slope		OBCLION, TO	ocal relief	(concave, convex, none):	
Slope (%): 15 / Lat: 39.34848001					Datum: NAD 83
0 F C 0 C 111					
	1		1		ation: <u>PSS1A</u>
Are climatic / hydrologic conditions on the site typical for the					
Are Vegetation 10, Soil 10, or Hydrology 10			Are '	"Normal Circumstances" p	present? Yes No
Are Vegetation $N_0$ , Soil $N_0$ , or Hydrology $N_0$	naturally pro	blematic?	(If ne	eeded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects	, important features, etc.
Hydrophytic Vegetation Present? Yes		1- 41-	. 01		1
Hydric Soil Present? Yes			e Sampled		No/_
Wetland Hydrology Present? Yes			in a Wetlaı	nar res	NO/
Remarks: Upland data point for W	007-PF	O-CAT	2.	4	
Data point taken in force	Stelar	redad	acent	to transmission	n Kow-
			)		
VEGETATION – Use scientific names of plants	Absolute	Dominant	Indicator	Dominance Test work	sheet.
Tree Stratum (Plot size: 30')		Species?		Number of Dominant S	
1. Acer saccharum	4.0	4	FacU	That Are OBL, FACW,	
2				Total Number of Domin	ant C
3				Species Across All Stra	
4				Percent of Dominant S	neries 11 a · /
5				That Are OBL, FACW,	
Section State Contract (State )	40	= Total Cov	er er	Prevalence Index wor	kehaat:
Sapling/Shrub Stratum (Plot size: 15')	10	N	FacW	Total % Cover of:	
2. Lanicera marrowii	15	7	FacU	OBL species	x1=
3.		1	1 000	FACW species	
4.				FAC species	x 3 =
5.				FACU species	x 4 =
rs.1	25	= Total Cov	er	UPL species	x5=
Herb Stratum (Plot size:)	1-		_	Column Totals:	(A) (B)
1. Microstegium vimineum	12	4	Fac		
2				Prevalence Index	
3				Hydrophytic Vegetation	
4				2 - Dominance Tes	Hydrophytic Vegetation
5			_	3 - Prevalence Inde	
6					Adaptations <sup>1</sup> (Provide supporting
7.		_			s or on a separate sheet)
8				Problematic Hydro	phytic Vegetation¹ (Explain)
9					
	15	= Total Cov			il and wetland hydrology must
Woody Vine Stratum (Plot size: 30)		- Total COV		be present, unless dist	urbed or problematic.
1 Parthenocissus quinquefishia	15	Y	FacU	Hydrophytic	
2.				Vegetation	s No
	15	= Total Cov	er	Present? Ye	8NO
Remarks: (Include photo numbers here or on a separate	sheet.)				

Depth	Matrix		Redo		-			
(inches)	Color (moist)	- %	Color (moist)	<u>% Type¹ Lo</u>			Remark	(S
0-16	MKSL	100			Sittle	Im		
_								_
_							CALLERY OF SHARE	SE Y COLE
		oletion, RM=	Reduced Matrix, MS	=Masked Sand Grains.			ore Lining, M=	
ydric Soil I							oblematic Hyd	nc Solls :
_ Histosol	` '			Gleyed Matrix (S4)			Redox (A16)	
	ipedon (A2)			Redox (S5)		rk Surface		0)
_ Black His	, ,			Matrix (S6)			ese Masses (F1	
	n Sulfide (A4)			Mucky Mineral (F1)			Dark Surface (	IF12)
_ Stratilied _ 2 cm Mu	Layers (A5)			Gleyed Matrix (F2) d Matrix (F3)	_ 011	iei (Expla	n in Remarks)	
	Below Dark Surfa	°e (Δ11)		ark Surface (F6)				
	rk Surface (A12)	~ (^11)		Dark Surface (F7)	3Indica	tors of hyd	Irophytic vegeta	tion and
	ucky Mineral (S1)			epressions (F8)			ology must be p	
	cky Peat or Peat (S	3)		.,		-	oed or problems	-
	ayer (if observed)							
Type:								. /
					Hydric S	Soil Prese	nt? Yes	No_ <u></u>
Depth (inc	ydric Soils	are no	present.					
emarks:	ydric Soils	are no	present.					
DROLOG	ydric Soils		present.					
emarks:	ydric Soils  Y  rology Indicators		present.	plv)		endary ind	cators (minimur	n of two required
PROLOG	ydric Soils  Y  rology Indicators		red: check all that ap	ply) ned Leaves (B9)	Seco		cators (minimur	n of two required
DROLOG etland Hyd rimary Indica	ydric Soils  GY  rology Indicators  ators (minimum of		red: check all that ap	ned Leaves (B9)	Secc.	Surface So		n of two required
DROLOG etland Hyd rimary Indica	ydric Soils  Y  rology Indicators ators (minimum of Water (A1) er Table (A2)		red: check all that ap Water-Stai Aquatic Fa	ned Leaves (B9) una (B13)	Secc	Surface So Drainage I	oil Cracks (B6)	
DROLOG etland Hyd imary Indica Surface \ High Wat	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3)		red: check all that ap Water-Stai Aquatic Fa True Aqua	ned Leaves (B9) una (B13) tic Plants (B14)	Seco	Surface So Drainage I Dry-Seaso	oil Cracks (B6) Patterns (B10)	
DROLOG etland Hydrimary Indic. Surface \( \) High Wat Saturatio Water Ma	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3)		red: check all that ap — Water-Stai — Aquatic Fa — True Aquai — Hydrogen S	ned Leaves (B9) una (B13)	Secc	Surface So Drainage I Dry-Seaso Crayfish B	oil Cracks (B6) Patterns (B10) n Water Table (	C2)
DROLOG etland Hyd rimary Indic Surface N High Wat Saturatio Water Ma Sedimen	rology Indicators ators (minimum of Water (A1) er Table (A2) in (A3) arks (B1)		red: check all that ap  — Water-Stai  — Aquatic Fa  — True Aquai  — Hydrogen S  — Oxidized R	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1)	Secondary Second	Surface So Drainage I Dry-Seaso Crayfish B Saturation	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8)	C2) al Imagery (C9)
PROLOGETIAND IN THE PROPERTY I	rology indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) deposits (B2)		red: check all that ap  Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R Presence of	ned Leaves (B9) una (B13) lic Plants (B14) Sulfide Odor (C1) hizospheres on Living F	Secc	Surface So Drainage I Dry-Seaso Crayfish B Saturation Stunted or	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria	C2) al Imagery (C9) s (D1)
PROLOGO  Tetland Hydrimary Indica  Surface Note that the second of the s	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) or Crust (B4)		red: check all that ap  Water-Stai  Aquatic Fa  True Aquai  Hydrogen S  Oxidized R  Presence o	ned Leaves (B9) una (B13) lic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4)	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants	C2) al Imagery (C9) s (D1)
/DROLOG /etland Hydrimary Indica Surface \ High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) or Crust (B4)	one is requi	red: check all that ap  Water-Stai  Aquatic Fa  True Aquat  Hydrogen S  Oxidized R  Presence of Recent Iron  Thin Muck	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled So	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2)	C2) al Imagery (C9) s (D1)
PROLOC Tetland Hydrimary Indica Surface Naturatio High Water May Saturatio Water May Sediment Drift Depo	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) irks (B1) it Deposits (B2) posits (B3) or Crust (B4) posits (B5)	one is requi	red: check all that ap  Water-Stai  Aquatic Fa  True Aquai  Hydrogen S  Oxidized R  Presence C  Recent Iron  Thin Muck  Gauge or N	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled Soi Surface (C7)	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2)	C2) al Imagery (C9) s (D1)
PROLOC Vetland Hydrimary Indica Surface Note High Water May Saturation Water May Sediment Drift Deput Algal Mater Iron Deput Iron Deput Iron Deput Inundation Sparsely	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) in (A3) in (B1) in Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concav	one is requi	red: check all that ap  Water-Stai  Aquatic Fa  True Aquai  Hydrogen S  Oxidized R  Presence C  Recent Iron  Thin Muck  Gauge or N	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled Soi Surface (C7) Vell Data (D9)	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2)	C2) al Imagery (C9) s (D1)
/DROLOG /etland Hyd rimary Indica Surface Naturatio Water Mater Ma	rology Indicators ators (minimum of a Vater (A1) er Table (A2) in (A3) irks (B1) is Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations:	one is requi	red: check all that ap  Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Sab Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled So Surface (C7) Vell Data (D9) lain in Remarks)	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2)	C2) al Imagery (C9) s (D1)
/DROLOG /etland Hyd rimary Indica Surface N High Water Ma Sediment Drift Dep Algal Mat Iron Depo Inundatio Sparsely ield Observ	rology Indicators ators (minimum of Nater (A1) er Table (A2) in (A3) irks (B1) is Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial Vegetated Concavations: r Present?	one is requir Imagery (B' e Surface (I	red: check all that ap  Water-Stai  Aquatic Fa  True Aquai  Hydrogen S  Oxidized R  Presence G  Recent Iron  Thin Muck  Gauge or N  38)  Depth (inc	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled So Surface (C7) Vell Data (D9) lain in Remarks)	Secondary Secondary Secondary (C3)	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph	oil Cracks (B6) Patterns (B10) n Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2)	C2) al Imagery (C9) s (D1)
POROLOG Vetland Hyd rimary Indic Surface \ High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depot	rology indicators ators (minimum of Vater (A1) er Table (A2) in (A3) irks (B1) i Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present?	Imagery (B'e Surface (I	red: check all that ap  Water-Stai  Aquatic Fa  True Aquai  Hydrogen 3  Oxidized R  Presence 0  Recent Iron  Thin Muck  Gauge or N  Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled Soi Surface (C7) Vell Data (D9) lain in Remarks) thes):	Secondary Secondary Secondary (C3)	Surface So Drainage I Dry-Sease Crayfish B Saturation Stunted or Geomorph FAC-Neuti	oil Cracks (B6) Patterns (B10) In Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2) ral Test (D5)	C2) al Imagery (C9) s (D1)
VDROLOG Vetland Hyd rimary Indic Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely ield Observ varface Water Table If aturation Princludes cap	rology indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present?	Imagery (Bi e Surface (I es I	red: check all that ap  Water-Stai  Aquatic Fa  True Aquat  Hydrogen S  Oxidized R  Presence C  Recent Iron  Thin Muck  Gauge or V  38)  Depth (inc	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled Soi Surface (C7) Vell Data (D9) lain in Remarks) thes):	Seccion Seccio	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph FAC-Neutral In Stunder	oil Cracks (B6) Patterns (B10) In Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2) ral Test (D5)	C2) al Imagery (C9) s (D1)
VDROLOG Vetland Hyd rimary Indic Surface N High Wat Saturatio Water Ma Sedimen Drift Dep Algal Mat Iron Depo Inundatio Sparsely ield Observ varface Water Table If aturation Princludes cap	rology indicators ators (minimum of Vater (A1) er Table (A2) in (A3) arks (B1) it Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present?	Imagery (Bi e Surface (I es I	red: check all that ap  Water-Stai  Aquatic Fa  True Aquat  Hydrogen S  Oxidized R  Presence C  Recent Iron  Thin Muck  Gauge or V  38)  Depth (inc	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled Soi Surface (C7) Vell Data (D9) lain in Remarks) thes):	Seccion Seccio	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph FAC-Neutral In Stunder	oil Cracks (B6) Patterns (B10) In Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2) ral Test (D5)	C2) al Imagery (C9) s (D1)
POROLOG Vetland Hyd rimary Indice Surface N High Wat Saturatio Water Ma Sediment Drift Dep Algal Mat Iron Depot Inundatio Sparsely ield Observ urface Water Vater Table If aturation Proncludes cap escribe Rec	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) irks (B1) i Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? llary fringe) porded Data (stream	Imagery (B'es	red: check all that ap  Water-Stai Aquatic Fa True Aquai Hydrogen S Oxidized R Presence C Recent Iron Thin Muck Gauge or N 38) Other (Exp	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled So Surface (C7) Vell Data (D9) lain in Remarks) thes):	Seccion Seccio	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph FAC-Neutral In Stunder	oil Cracks (B6) Patterns (B10) In Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2) ral Test (D5)	C2) al Imagery (C9) s (D1)
/DROLOG /etland Hydrimary Indice Surface Note High Water May Sediment Drift Deputed Inundation Sparsely leid Observeurface Water Table Inaturation Proceedings Capital Recember 1	rology Indicators ators (minimum of Vater (A1) er Table (A2) in (A3) irks (B1) i Deposits (B2) posits (B3) or Crust (B4) posits (B5) in Visible on Aerial Vegetated Concavations: r Present? Present? llary fringe) porded Data (stream	Imagery (B'es	red: check all that ap  Water-Stai  Aquatic Fa  True Aquat  Hydrogen S  Oxidized R  Presence C  Recent Iron  Thin Muck  Gauge or V  38)  Depth (inc	ned Leaves (B9) una (B13) tic Plants (B14) Sulfide Odor (C1) hizospheres on Living F of Reduced Iron (C4) n Reduction In Tilled So Surface (C7) Vell Data (D9) lain in Remarks) thes):	Seccion Seccio	Surface Son Drainage In Dry-Season Crayfish Beaturation Stunted or Geomorph FAC-Neutral In Stunted Stundard St	oil Cracks (B6) Patterns (B10) In Water Table ( urrows (C8) Visible on Aeria Stressed Plants ic Position (D2) ral Test (D5)	C2) al Imagery (C9) s (D1)

# APPENDIX C Primary Headwater Habitat Evaluation (HHEI) Data Forms



## Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

	RIVER BASIN SCLUTO RIVER BASIN S	VER CODECE CONTROL MILE	ctions
	very type of substrate present. Check ONLY two ficant substrate types found (Max of 8). Final metri  PERCENT TYPE SILT [3 pt] LEAF PACKWOOD FINE DETRITUS [3 CLAY OF HARDPAN CLAY OF HARDPAN ARTIFICIAL [3 pts]  CARTIFICIAL [3 pts]  CARTIFICIAL [3 pts]  STRATE TYPES: TOTAL NUMBER	c score is sum of boxes A & B  PERCENT  O  PERCENT  PERCENT	HHEI Metric Points Substrate Max = 40 20 A+B
	MAXIMUM P  ne average of 3-4 measurements) (Chec	one box): pts]  DIST CHANNEL [0 pts]  OOL DEPTH (centimeters):  ck ONLY one box): "3" - 4"8") [15 pts]	Bankfull Width Max=30
Stream Flowing Subsurface flow with isolated po	FLOODPLAIN QUALITY  L R (Most Predominant per Bank)  Mature Forest, Wetland  Immature Forest, Shrub or Old Field  Residential, Park, New Field  Fenced Pasture  Valuation) (Check ONLY one box).  Moist Chan	Right (R) as looking downstream ☆  Conservation Tillage Urban or Industrial Open Pasture, Row Crop Mining or Construction  nel, isolated pools, no flow (Intermittent) I, no water (Ephemeral)  box):  3.0 >3	

ADDITIONAL STREAM INFORMATION (This Information Must Also be C	
QHEI PERFORMED? - TYes No QHEI Score	_ (IT Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	Distance from Evaluated Stream 0.40 miles
ZWWH Name: LICK RUN	Distance from Evaluated Stream
CWH Name:	Distance from Evaluated Stream  Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE	
usgs Quadrangle Name Chillicothe East or Landander yRo	- 4
County: 8055 Co. Township	city. Springfield Twp. / Chillichothe
MISCELLANEOUS	
Base Flow Conditions? (Y/N) Date of last precipitation	2017 Quantity: 4.25"
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 351.	
Were samples collected for water chemistry? (Y/N): (Note lab samples	ple no, or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
s the sampling reach representative of the stream (Y/N) If not, pleas	
s the sampling reach representative of the stream (TMV) Through pleas	e explain.
Animonia Regarding Bloogy.	
DRAWING AND NADDATIVE DECORIDATION OF	CTDFAREDEACH (This must be completed):
DRAWING AND NARRATIVE DESCRIPTION OF	
Include Important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
	evaluation and a narrative description of the stream's location
	evaluation and a narrative description of the stream's location
	evaluation and a narrative description of the stream's location
Include Important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
	evaluation and a narrative description of the stream's location
Include important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
Include important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
Include Important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
Include important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
Include important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location
Include important landmarks and other teatures of interest for site	evaluation and a narrative description of the stream's location

## ChieFPA Primary Headwater Habitat Evaluation Form HHEI Score (sum of metrics 1, 2, 3):

NOTE: Complete All Items On This Form - Refer	2409803 LONG-82-899774714 DMMENTS_S004	Ohio's PHWH Streams" for Instr	ructions
SUBSTRATE (Estimate percent of every type of (Max of 40). Add total number of significant substrated type of the control of th	te types found (Max of 8). Final metric  TYPE SILT [3 pt] LEAF PACKWOODY FINE DETRITUS [3 pt] CLAY or HARDPAN [ MUCK [0 pts] ARTIFICIAL [3 pts]	DEBRIS [3 pts]	HHEI Metric Points Substrate Max = 40
2. Maximum Pool Depth (Measure the maximum poevaluation Avoid plunge pools from road culverts of 30 centimeters [20 pts]  > 30 centimeters [20 pts]  > 22.5 - 30 cm [30 pts]  > 10 - 22.5 cm [25 pts]  COMMENTS  3. BANK FULL WIDTH (Measured as the average of 4.0 meters (> 13') [30 pts]  > 3 0 m - 4.0 m (> 9' 7" - 13") [25 pts]  > 15 m - 3.0 m (> 4'8" - 9' 7") [20 pts]	r storm water pipes) (Check ONLY of > 5 cm - 10 cm [15 p cm - 5 cm [5 pts] NO WATER OR MOI	one box):  its]  IST CHANNEL [0 pts]  OL DEPTH (centimeters):  CONLY one box): 3" - 4"8") [15 pts]	Pool Depth Max = 30  Bankfull Width Max=30
RIPARIAN ZONE AND FLOODPLAIN QUA RIPARIAN WIDTH FLOOD	Information <u>must</u> also be completed	NKFULL WIDTH (meters)	
FLOW REGIME (At Time of Evaluation) (C Stream Flowing Subsurface flow with isolated pools (Interstitia COMMENTS  SINUOSITY (Number of bends per 61 m (20 None	Moist Channel	3.0	

QHEI PERFORMED? - Tyes No QHEI Score(	If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	<b>A</b>
WWH Name: LICK KUN	Distance from Evaluated Stream Omily
	Distance from Evaluated Stream  Distance from Evaluated Stream
MAPPING: ATTACH COPIES OF MAPS, INCLUDING THE ENTIRE WA	ATERSHED AREA CLEARLY MARK THE SITE LOCATION
SGS Quadrangle Name Chillicothe East & Landondery NRCS	
_ ^	A I have I
ounty: Township / Cit	Springfield Twp. [Chillicothe
MISCELLANEOUS	2.17
lase Flow Conditions? (Y/N): Date of last precipitation:	Quantity: L. 25
hotograph Information:	
clevated Turbidity? (Y/N): \( \sum_{\text{\text{Canopy}}} \text{Canopy (% open): \( \sum_{\text{\text{\text{\text{251}}}} \)	
	no. or id and attach results) Lab Number:
	H (S.U.) Conductivity (μmhos/cm)
the sampling reach representative of the stream (Y/N) If not, please e	ъхріант.
ditional comments/description of pollution impacts:	
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collection in the properties of the	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)
erformed? (Y/N): (If Yes, Record all observations. Voucher collection in the property of the property o	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{1}{N} \) \( \fra
BIOTIC EVALUATION  erformed? (Y/N):	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collection	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):
BIOTIC EVALUATION  erformed? (Y/N):	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collection in the number. Include appropriate field data sheets is high Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macro comments Regarding Biology:  DRAWING AND NARRATIVE DESCRIPTION OF Significant landmarks and other features of interest for site events. Shrub	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collecting to number. Include appropriate field data sheets ish Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macro comments Regarding Biology: DRAWING AND NARRATIVE DESCRIPTION OF Significant landmarks and other features of interest for site expenses.	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collection in the number. Include appropriate field data sheets is high Observed? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Voucher? (Y/N) Aquatic Macro comments Regarding Biology.  DRAWING AND NARRATIVE DESCRIPTION OF Significant landmarks and other features of interest for site evaluation. Shrub	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (? (Y/N) \( \frac{N}{N} \) Voucher? (Y/N) \( \frac{N}{N} \) TREAM REACH (This must be completed): valuation and a narrative description of the stream's location
BIOTIC EVALUATION  erformed? (Y/N): (If Yes, Record all observations. Voucher collection in the number. Include appropriate field data sheets shobserved? (Y/N) Voucher? (Y/N) Salamanders Observed? (Y/N) Aquatic Macro comments Regarding Biology: Voucher? (Y/N) Aquatic Macro comments Regarding Biology:	ons optional. NOTE: all voucher samples must be labeled with the site from the Primary Headwater Habitat Assessment Manual)  (Y/N) \( \frac{N}{2} \) Voucher? (Y/N) \( \frac{N}{2} \) TREAM REACH (This must be completed):

## Primary Headwater Habitat Evaluation Form

HHEI Score (sum of metrics 1, 2, 3):

ľ	
ı	177
ш	

SITE NAME/LOCATION AFV - KOSS SITE NUMBER  LENGTH OF STREAM REACH (ft)  DATE 8/1 20/1 SCORER KLV  NOTE: Complete All Items On This Fo	RIVER BASIN SUNTA RIVER DRAINAGE AREA (mi²) 0.035  LAT 91.32494766 LONG: 82.90247924 RIVER CODE 05060000 RIVER MILE  COMMENTS SOOS  OFTH - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instruction	
STREAM CHANNEL MONE/NAMODIFICATIONS:	ATURAL CHANNEL    RECOVERED    RECOVERING    RECENT OR NO RECOVER	₹Y
(Max of 40). Add total number of significant	PERCENT    PERCENT   TYPE   SILT [3 pt]   PERCENT   PC	IHEI etric oints bstrate ax = 40
2. Maximum Pool Depth (Measure the revaluation. Avoid plunge pools from roc > 30 centimeters (20 pts)  > 22.5 - 30 cm [30 pts]  > 10 - 22.5 cm [25 pts]  COMMENTS		Depth ax = 30
3. BANK FULL WIDTH (Measured as the >4.0 meters (> 13') [30 pts] >3.0 m -4.0 m (>9'7"-13') [25 pts] >1.5 m -3.0 m (>4'8"-9'7") [20 pts] COMMENTS	> 1.0 m - 1.5 m (> 3'3"-4'8") [15 pts] W	ankfull Vidth ax=30
RIPARIAN ZONE AND FLOOD RIPARIAN WIDTH	This information must also be completed  PLAIN QUALITY ☆NOTE: River Left (L) and Right (R) as looking downstream☆  FLOODPLAIN QUALITY	
L R (Per Bank) Wide >10m Moderate 5-10m Narrow <5m	L R (Most Predominant per Bank) Mature Forest, Wetland Immature Forest, Shrub or Old Field  Residential, Park, New Field  L R Conservation Tillage Urban or Industrial Open Pasture, Row Crop	
None COMMENTS  FLOW REGIME (At Time of Eve Stream Flowing Subsurface flow with isolated por COMMENTS	Fenced Pasture  Mining or Construction  aluation) (Check ONLY one box):  Moist Channel, isolated pools, no flow (Intermittent)  Dry channel, no water (Ephemeral)	
SINUOSITY (Number of bends   None   O.5   STREAM GRADIENT ESTIMATE   Flat (0.5 ft/100 ft)   Flat to Moderate	per 61 m (200 ft) of channel) (Check ONLY one box):  1.0	

ADDITIONAL STREAM INFORMATION (This Information Must Also	o be Completed):
QHEI PERFORMED? - Yes XNo QHEI Score	(If Yes, Attach Completed QHEI Form)
DOWNSTREAM DESIGNATED USE(S)	
WWH Name: Lick Run	Distance from Evaluated Stream 0.17 miles
CWH Name:	
EWH Name:	Distance from Evaluated Stream
the second secon	NTIRE WATERSHED AREA. CLEARLY MARK THE SITE LOCATION
	NRCS Soil Map Page: NRCS Soil Map Stream Order
County: KOSS CO. Town	ship/city. Springfield Twp. (Chillicothe
MISCELLANEOUS	100/00/00
Base Flow Conditions? (Y/N): Date of last precipitation:	29 2017 Quantity: 2.25
Photograph Information:	
Elevated Turbidity? (Y/N): N Canopy (% open): 20	<u>/</u>
Were samples collected for water chemistry? (Y/N): (Note lat	b sample no. or id. and attach results) Lab Number:
Field Measures: Temp (°C) Dissolved Oxygen (mg/l)	pH (S.U.) Conductivity (µmhos/cm)
Is the sampling reach representative of the stream (Y/N)	, please explain:
is the sumpling readility operations are all our and the sumpling readility operations.	
	·
DRAWING AND NARRATIVE DESCRIPTION	N OF STREAM REACH (This <u>must</u> be completed):
include important landmarks and other features of interest fo	or site evaluation and a narrative description of the stream's location
Sycamore	Field/pasture
FLOW	
7 ) / ) /	200
1/1/	Sycamores
Field	
Field/	pasture ()

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). 17-0637-EL-BTX

Summary: Application (4 of 5 Parts) electronically filed by Ms. Christen M. Blend on behalf of AEP Ohio Transmission Power Company, Inc.