







APPENDIX A

U.S. ARMY CORPS of ENGINEERS WETLAND AND UPLAND FORMS

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion	City/County: Lick	king County Sampling Date: 18-Jun-19
Applicant/Owner: AEP		State: OH Sampling Point: w-jbl-061819-01
Investigator(s): JBL,AEH	Section, Township	p, Range: S 17 T 2N R 15W
Landform (hillslope, terrace, etc.): Floodplain	Loca	Il relief (concave, convex, none): flat
Slope: 0.0% 0.0 ° Lat.: 40.074869	Long.: -82.7	734940 Datum: NAD 1984
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, 0		NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of y		(If no, explain in Remarks.)
	gnificantly disturbed?	Are "Normal Circumstances" present? Yes ● No ○
	aturally problematic?	(If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show		
Hydrophytic Vegetation Present? Yes No	<u> </u>	<u> </u>
Hydric Soil Present? Yes No		mpled Area
Wetland Hydrology Present? Wetland Hydrology Present? Yes No O	within a \	Wetland? Yes ● No ○
Remarks:		
two willows make this old cow pasture wetland a pfo		
The Williams and the transport parts of the t		
NEGETATION		
VEGETATION - Use scientific names of plan	ts. Dominant Species? —	<u> </u>
	Absolute Rel.Strat. Inc	dicator Dominance Test worksheet:
1. Salix nigra		Number of Dominant Species That are OBL, FACW, or FAC: 4 (A)
2.		Illat ale ODL, FACEV, OF FACE.
3		Total Number of Dominant Species Across All Strata: 4 (B)
4.		Species notoss All Strata.
5	0 0.0% 0	
	50 = Total Cover	That Are OBL, FACW, or FAC: 100.0% (A/B)
Sapling/Shrub Stratum (Plot size:)		Prevalence Index worksheet:
1	0 0.0%	Total % Cover of: Multiply by:
2	0	OBL species 70 x 1 = 70 FACW species 70 x 2 = 140
4.	0 0.0%	FACW species 70 x 2 = 140 FAC species 15 x 3 = 45
5.	0 0.0%	FACU species $0 \times 4 = 0$
Herb Stratum (Plot size:)	0 = Total Cover	UPL species 0 x 5 = 0
1 Impatiens capensis	30 ✓ 28.6% FA	ACW Column Totals: 155 (A) 255 (B)
2. Agrostis gigantea		ACM
3. Leersia virginica		ACW Prevalence muex = b/A = 1.045
4. Bidens bipinnata		Hydrophytic Vegetation Indicators:
5. Acorus americanus	15	■ 1 - Rapid Test for Hydrophytic Vegetation
6. Glyceria septentrionalis		BL 2 - Dominance Test is > 50% ✓ 3 - Prevalence Index is ≤3.0 ¹
7	0 0.0%	4 - Morphological Adaptations ¹ (Provide supporting
8	0	data in Remarks or on a separate sheet)
910.	0 0.0%	Problematic Hydrophytic Vegetation ¹ (Explain)
10	0 0.0%	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratu (Plot size:)	= Total Cover	be present, unless disturbed or problematic.
1,	0 0.0%	
2	0 0.0%	Hydrophytic Vegetation
	0 = Total Cover	Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	ieet.)	

SOIL Sampling Point: w-ibl-061819-01

Profile Descr	iption: (Describe	to the depth ne	eded to documen	t the ind	icator or co	onfirm the	e absence of indicators.)	
Depth	Matrix			dox Featu				
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type 1	Loc ²	Texture	Remarks
0-16	10YR 4/1		7.5YR 4/4	15			Silt Loam	
			-	- ,				
	-							
_ ·	•	tion, RM=Reduce	ed Matrix, CS=Cover	ed or Coat	ted Sand Gr	ains.	² Location: PL=Pore Lining. M=Matri	Х.
Hydric Soil I							Indicators for Problematic Hy	ydric Soils ³ :
Histosol (A	•		Sandy Gleyed		4)		Coast Prairie Redox (A16)	
Black Hist	pedon (A2)		Sandy Redox				Dark Surface (S7)	
	Sulfide (A4)		Stripped Matr		\		Iron Manganese Masses (F12	2)
	Layers (A5)		Loamy Mucky				Very Shallow Dark Surface (T	
2 cm Muc			Loamy Gleyed✓ Depleted Mate		2)		Other (Explain in Remarks)	
Depleted	Below Dark Surface	(A11)	Redox Dark S		.1			
Thick Dar	k Surface (A12)		Depleted Dark	•	•		3 1	
Sandy Mu	ck Mineral (S1)		Redox Depres				Indicators of hydrophytic vege wetland hydrology must be	present,
5 cm Muc	ky Peat or Peat (S3)	1	Nodon = -p	3101.5 (,			unless disturbed or proble	
Restrictive L	ayer (if observed)	:						
Type:								
Depth (inc	hes):						Hydric Soil Present? Yes	● No ○
Remarks:								
HYDROLO	GY							
Wetland Hyd	rology Indicators	:						
Primary Indica	ators (minimum of c	ne is required; ch	neck all that apply)				Secondary Indicators (mini	mum of two required
Surface W	/ater (A1)		Water-Stain	ed Leaves	(B9)		Surface Soil Cracks (B6))
✓ High Wate	er Table (A2)		Aquatic Fau	ına (B13)			Drainage Patterns (B10))
✓ Saturation	n (A3)		True Aquati	c Plants (F	314)		Dry Season Water Tabl	e (C2)
☐ Water Ma	rks (B1)		Hydrogen S				Crayfish Burrows (C8)	
Sediment	Deposits (B2)		Oxidized Rh	iizospheres	s on Living F	Roots (C3)	Saturation Visible on A	erial Imagery (C9)
Drift Depo	osits (B3)		Presence of	Reduced	Iron (C4)		Stunted or Stressed Pla	ants (D1)
	or Crust (B4)		Recent Iron	Reduction	n in Tilled So	oils (C6)	Geomorphic Position (E)2)
Iron Depo			Thin Muck S	Surface (C	7)		FAC-Neutral Test (D5)	
	n Visible on Aerial I		Gauge or W	/ell Data (I	D9)			
Sparsely \	/egetated Concave	Surface (B8)	Other (Expl	ain in Rem	narks)			
Field Observa		O " @						
Surface Water		es O No •	Depth (inc	ches):		-		
Water Table P	resent? Ye	es • No O	Depth (inc	ches):	0	_	land Hydrology Present? Yes	● No ○
Saturation Pre	Ye	es • No O	Depth (inc	ches):	0	Weti	land Hydrology Present? Yes	● NO ○
(includes capil	iary iringe)		toring well, aerial		nrevious ir	- I	c) if available.	
Describe Rec	orded Data (Stree	in gauge, mon	toring well, acrial	priotos,	previous ii	ispection.	3), ii avaliabic.	
Remarks:								
Keniaiks.								

US Army Corps of Engineers Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion	City/County: I	Licking Count	ty Sampling Date: 18-Jun-19
Applicant/Owner: AEP		State:	OH Sampling Point: w-jbl-061819-02
Investigator(s): JBL,AEH	Section, Towns	hip, Range:	S 17 T 2N R 15W
Landform (hillslope, terrace, etc.): Hillside	Lo	ocal relief (co	oncave, convex, none): concave
Slope:0.0%/0.0_ ° Lat.: 40.074609	long : _8	2.735620	Datum: NAD 1984
Soil Map Unit Name: Amanda silt loam, 12 to 18 percent slop		2.733020	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of		(If no. exp	plain in Remarks.)
	significantly disturbed?		rmal Circumstances" present? Yes No No
	naturally problematic?		mai oli odinotanoso pi oconti
SUMMARY OF FINDINGS - Attach site map sho	• •		ed, explain any answers in Remarks.) us, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No			-
Hydric Soil Present? Yes No		Sampled Ar	rea
Wetland Hydrology Present? Yes No	within	a Wetland?	? Yes ● No ○
Remarks:			
hillside pem in pasture. Wetland 2			
l			
VEGETATION - Use scientific names of plan	nts. Dominant Species? -		
_ <u>Tree Stratum_(Plot size:</u>)	Absolute Rel.Strat.		Dominance Test worksheet:
	% Cover Cover 0 □ 0.0%	Status	Number of Dominant Species
1. 2.			That are OBL, FACW, or FAC: (A)
3			Total Number of Dominant Species Across All Strata: 2 (B)
4.			Species Across Air Strata.
5	0 0.0%		Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
	= Total Cover	. [That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum (Plot size:)			Prevalence Index worksheet:
1. Fraxinus pennsylvanica	5 100.0%	FACW	Total % Cover of: Multiply by:
23.	0 0.0%		OBL species
4.	0 0.0%		FACW species 5 x 2 = 10 FAC species 0 x 3 = 0
5.	0 0.0%		FACU species 5 x 4 = 20
Herb Stratum (Plot size:	5 = Total Cover		UPL species $0 \times 5 = 0$
1 Acorus americanus	70 🗸 70.0%	OBL	Column Totals: 105 (A) 125 (B)
2. Scirpus atrovirens	15 15.0%	OBL	
3. Scirpus pendulus	5 5.0%	OBL	Prevalence Index = B/A = <u>1.190</u>
4. Sagittaria cuneata	5 5.0%	ORI	Hydrophytic Vegetation Indicators:
5. Trifolium pratense	5 5.0%	FACU	✓ 1 - Rapid Test for Hydrophytic Vegetation✓ 2 - Dominance Test is > 50%
6	0 0.0%		✓ 3 - Prevalence Index is ≤3.0 ¹
7			4 - Morphological Adaptations ¹ (Provide supporting
8	0 0.0%		data in Remarks or on a separate sheet)
10	0 0.0%	—	Problematic Hydrophytic Vegetation ¹ (Explain)
	100 = Total Cover		1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratu (Plot size:)		-	be present, unless disturbed or problematic.
1			Hydrophytic
2			Vegetation
	0 = Total Cover		Present? Yes No O
Demarks, (Include photo pumbers have as as a second	hoot)		
Remarks: (Include photo numbers here or on a separate s	nieet.)		

SOIL Sampling Point: w-ibl-061819-02

Profile Descr	iption: (Describe	to the depth ne	eded to documen	t the indi	icator or co	onfirm th	e absence of indicators.)	
Depth	Matrix			lox Featu			_	
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type 1	Loc2	Texture	Remarks
0-16	10YR 5/1	90	10YR 4/4	10	С	M	Silt Loam	
						-		
1 Type: C=Cond	centration, D=Deple	tion, RM=Reduce	d Matrix, CS=Cover	ed or Coat	ted Sand Gr	ains.	² Location: PL=Pore Lining. M=	Matrix.
Hydric Soil I							Indicators for Problemat	ic Hydric Soils 3 ·
Histosol (/			Sandy Gleyed	Matrix (S	4)			•
	pedon (A2)		Sandy Redox		•		Coast Prairie Redox (A16	5)
☐ Black Hist	ic (A3)		Stripped Matr				Dark Surface (S7)	
Hydrogen	Sulfide (A4)		Loamy Mucky		F1)		Iron Manganese Masses	(F12)
Stratified	Layers (A5)		Loamy Gleyed				Very Shallow Dark Surfa	ce (TF12)
2 cm Muc	k (A10)		✓ Depleted Matr		_,		Other (Explain in Remar	ks)
Depleted	Below Dark Surface	(A11)	Redox Dark S		<i>3</i>)			
Thick Dar	k Surface (A12)		Depleted Dark	•	,		3	
Sandy Mu	ck Mineral (S1)		Redox Depres				Indicators of hydrophytic wetland hydrology must	vegetation and st be present
5 cm Muc	ky Peat or Peat (S3)		▼ Redox Depres	1310113 (1 0)	,		unless disturbed or pr	
Restrictive La	ayer (if observed)	:						
Type:								
Depth (incl	hes):						Hydric Soil Present? Ye	es No
Remarks:							1	
HYDROLO)CV							
_	rology Indicators							
Primary Indica	ntors (minimum of o	ne is required; ch	eck all that apply)					(minimum of two required
Surface W	` '		Water-Stain	ed Leaves	s (B9)		Surface Soil Crack	s (B6)
High Wate	er Table (A2)		Aquatic Fau	. ,			Drainage Patterns	
✓ Saturation	n (A3)		True Aquati	c Plants (E	314)		Dry Season Water	Table (C2)
☐ Water Ma	rks (B1)		Hydrogen S	ulfide Odd	or (C1)		Crayfish Burrows ((C8)
Sediment	Deposits (B2)		Oxidized Rh	izosphere	s on Living F	Roots (C3)	Saturation Visible	on Aerial Imagery (C9)
☐ Drift Depo	osits (B3)		Presence of	Reduced	Iron (C4)		Stunted or Stresse	ed Plants (D1)
Algal Mat	or Crust (B4)		Recent Iron	Reduction	n in Tilled So	oils (C6)	✓ Geomorphic Position	on (D2)
☐ Iron Depo	sits (B5)		☐ Thin Muck S	Surface (C	7)		✓ FAC-Neutral Test ((D5)
	n Visible on Aerial Ir	nagery (B7)	Gauge or W	•	,			
	/egetated Concave S	0 3 . ,	Other (Expla					
,	J	, ,	Other (Expir	ani ni nen	idiksy			
Field Observa	ations:							
Surface Water		s O No 💿	Depth (inc	:hes):				
		s • No O				-		
Water Table P			Depth (inc	ches):	0	Wet	land Hydrology Present?	Yes ● No ○
Saturation Pre (includes capil	YA	s No	Depth (inc	ches):	0	_	idild Trydrology Tresent.	100 - 110 -
	orded Data (strea	m gauge, moni	toring well, aerial	photos,	previous ir	spection	s), if available:	
	`	3 3 .	3 .		•	•	,	
Remarks:								
Kernarks.								

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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion	City/County:	Licking Cour	unty Sampling Date: 18-Jun-19
Applicant/Owner: AEP		State:	: OH Sampling Point: w-jbl-061819-03
Investigator(s): JBL,AEH	Section, To	wnship, Range:	
Landform (hillslope, terrace, etc.): Lowland			concave, convex, none): concave
	Long:	-	- NAD 1004
Slope: 0.0% / 0.0 ° Lat.: 40.075362		-82.736018	
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, o		/If no. 0	NWI classification: NA
Are climatic/hydrologic conditions on the site typical for this time of year			xplain in Remarks.)
Are Vegetation	inificantly disturbed?	Are "No	ormal Circumstances" present? Yes No
	turally problematic?		eded, explain any answers in Remarks.)
SUMMARY OF FINDINGS - Attach site map show	ing sampling po	int location	ns, transects, important features, etc.
Hydrophytic Vegetation Present? Yes No No			_
Hydric Soil Present? Yes No No		the Sampled A hin a Wetland	
Wetland Hydrology Present? Yes No			103 0 100 0
Remarks:			
PEM WETLAND 3			
VEGETATION - Use scientific names of plant	S. Dominar Species		
- O. (Diot.circ.)	Absolute Rel.Stra	t. Indicator	Dominance Test worksheet:
	% Cover Cover	Status	Number of Dominant Species
1	0		That are OBL, FACW, or FAC:3(A)
2			Total Number of Dominant
3			Species Across All Strata:3(B)
4	0		Percent of dominant Species
5	0		That Are OBL, FACW, or FAC:
_Sapling/Shrub Stratum (Plot size:)	U = 10tai 0t	ivei	
	0	,	Prevalence Index worksheet:
2	0 0.0%		Total % Cover of: Multiply by: OBL species 60 x 1 = 60
3.	0 0.0%		
4.	0 0.0%		
5.	0 0.0%		
	0 = Total Co		FACU species 20 $x 4 = 80$ UPL species 0 $x 5 = 0$
Herb Stratum (Plot size:)			
1. Scirpus atrovirens	25 23.8%		Column Totals: <u>105</u> (A) <u>190</u> (B)
2. Scirpus pendulus	20 19.0%		Prevalence Index = B/A = 1.810
3. Carex annectens	15 14.3%		Hydrophytic Vegetation Indicators:
4. Eleocharis obtusa	10 9.5%		✓ 1 - Rapid Test for Hydrophytic Vegetation
5. Trifolium repens	10 9.5%		✓ 2 - Dominance Test is > 50%
6. Festuca arundinacea	10 9.5%		✓ 3 - Prevalence Index is ≤3.0 ¹
7. Lysimachia nummularia	5 4.8%		4 - Morphological Adaptations ¹ (Provide supporting
8. Carex lurida	5 4.8%		data in Remarks or on a separate sheet)
9. Agrostis stolonifera 10.	5 4.8%		Problematic Hydrophytic Vegetation ¹ (Explain)
10	0 \(\sum_{0.0\%}		1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratu (Plot size:)	= Total Co	ver	be present, unless disturbed or problematic.
1	0 0.0%)	
2.	0 0.0%	,	Hydrophytic Vegetation
	0 = Total Co	over	Present? Yes No
Remarks: (Include photo numbers here or on a separate she	eet.)		
	,		

SOIL Sampling Point: w-ibl-061819-03

Depth Matrix	th needed to document the indicator or co Redox Features			
inches) Color (moist) %	Color (moist) % Type 1	Loc2	Texture	Remarks
0-16 2.5Y 3/1 95	10YR 4/4 5			
	·			
	- 			
pe: C=Concentration, D=Depletion, RM=Re	educed Matrix, CS=Covered or Coated Sand Gra	ins.	² Location: PL=Pore Lining	. M=Matrix.
dric Soil Indicators:			Indicators for Proble	ematic Hydric Soils 3:
Histosol (A1)	Sandy Gleyed Matrix (S4)		_	•
Histic Epipedon (A2)	Sandy Redox (S5)		Coast Prairie Redox	(A16)
Black Histic (A3)	Stripped Matrix (S6)		Dark Surface (S7)	
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)		Iron Manganese M	asses (F12)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)		☐ Very Shallow Dark	Surface (TF12)
2 cm Muck (A10)	Depleted Matrix (F3)		Other (Explain in R	emarks)
Depleted Below Dark Surface (A11)	✓ Redox Dark Surface (F6)			
Thick Dark Surface (A12)			3	
Sandy Muck Mineral (S1)	Depleted Dark Surface (F7)		3 Indicators of hydrop	hytic vegetation and y must be present,
5 cm Mucky Peat or Peat (S3)	Redox Depressions (F8)		unless disturbed	
strictive Layer (if observed):				
Type:				
Type: Depth (inches):			Hydric Soil Present?	Yes ● No ○
Type: Depth (inches): emarks:			Hydric Soil Present?	Yes No
Depth (inches):			Hydric Soil Present?	Yes No
Depth (inches):marks:			Hydric Soil Present?	Yes No
Depth (inches):				
Depth (inches):	ed; check all that apply)		Secondary Indica	tors (minimum of two required
Depth (inches):	ed; check all that apply) Water-Stained Leaves (B9)			tors (minimum of two required
Depth (inches):			Secondary Indica	tors (minimum of two required Cracks (B6)
Depth (inches):	Water-Stained Leaves (B9)		Secondary Indica	tors (minimum of two required Cracks (B6)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13)		Secondary Indica	otors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2)
DROLOGY Itland Hydrology Indicators: nary Indicators (minimum of one is require) Surface Water (A1) High Water Table (A2) Saturation (A3)	☐ Water-Stained Leaves (B9)☐ Aquatic Fauna (B13)☐ True Aquatic Plants (B14)	poots (C3)	Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr	otors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2)
DROLOGY Itand Hydrology Indicators: nary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	 Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1)	poots (C3)	Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8)
DROLOGY Itland Hydrology Indicators: nary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3)	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R		Secondary Indica Surface Soil (Drainage Pat Crayfish Burr Saturation Vi	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7)		Secondary Indica Surface Soil (Drainage Pat Crayfish Burr Saturation Vi	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7)		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
DROLOGY tland Hydrology Indicators: mary Indicators (minimum of one is require Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations:	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9)		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	tors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches): marks: DROLOGY tland Hydrology Indicators: mary Indicators (minimum of one is require) Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Id Observations: face Water Present? Yes No	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)		Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	tors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	ls (C6)	Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or Si Geomorphic FAC-Neutral	tors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2)
Popenth (inches): Pararks: Pararks	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks)	ls (C6)	Secondary Indica Surface Soil 0 Drainage Pat Dry Season 0 Crayfish Burr Saturation Vi Stunted or Si Geomorphic	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2) Test (D5)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	ls (C6)	Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or Si Geomorphic FAC-Neutral	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2) Test (D5)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	ls (C6)	Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or Si Geomorphic FAC-Neutral	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2) Test (D5)
Depth (inches):	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living R Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled So Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches): Depth (inches):	ls (C6)	Secondary Indica Surface Soil (Drainage Pat Dry Season (Crayfish Burr Saturation Vi Stunted or Si Geomorphic FAC-Neutral	ctors (minimum of two required Cracks (B6) terns (B10) Vater Table (C2) ows (C8) sible on Aerial Imagery (C9) cressed Plants (D1) Position (D2) Test (D5)

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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion	City/County:	Licking Cour	nty Sampling Date: 18-Jun-19
Applicant/Owner: AEP		State:	OH Sampling Point: upl-jbl-061819-01
Investigator(s): JBL,AEH	Section, Towr	 nship, Range:	
Landform (hillslope, terrace, etc.): Hillside		Local relief (c	oncave, convex, none): undulating
Slope: 0.0% 0.0 ° Lat.: 40.074780		-82.734942	Datum: NAD 1984
		-02.734942	NWI classification: NA
Soil Map Unit Name: <u>Centerburg silt loam, 6-12 percent slope</u> Are climatic/hydrologic conditions on the site typical for this time of y		(If no ex	plain in Remarks.)
	gnificantly disturbed?		ormal Circumstances" present? Yes No
	-		
Are Vegetation, Soil, or Hydrology not suppose the state of th	aturally problematic? ving sampling poir		ded, explain any answers in Remarks.)
Hydrophytic Vegetation Present? Yes No			,,,,,,,, .
Hydric Soil Present? Yes No •		e Sampled A	
· · · ·	withi	n a Wetland	I? Yes ○ No •
, 3,			
Remarks: upland 1 on hillside			
VECTATION			
VEGETATION - Use scientific names of plan	TS. Dominant Species?		
		Indicator Status	Dominance Test worksheet:
1	0 0.0%	Otatus	Number of Dominant Species That are OBL, FACW, or FAC: 1 (A)
2.	0 0.0%		
3.			Total Number of Dominant Species Across All Strata: 3 (B)
4			
5	0 0.0%		Percent of dominant Species That Are OBL, FACW, or FAC:33.3% (A/B)
O II (O) I O I (D)	0 = Total Cove	er	matric obe, mon, of the
Sapling/Shrub Stratum (Plot size:) 1.	0		Prevalence Index worksheet:
	0		Total % Cover of: Multiply by: OBL species 0 x 1 = 0
3.	0 0.0%		OBL species 0 x 1 = 0 FACW species 0 x 2 = 0
4.	0 0.0%		FAC species 25 x 3 = 75
5.	0 0.0%		FACU species 70 x 4 = 280
Herb Stratum (Plot size:	0 = Total Cove	er	UPL species 10 x 5 = 50
1 Festuca arundinacea	30 28.6%	FACU	Column Totals: 105 (A) 405 (B)
Vernonia gigantea	25 23.8%	FAC	
3. Artemisia annua	15 14.3%	FACU	Prevalence Index = B/A = 3.857
4. Bromus erectus	10 9.5%	UPL	Hydrophytic Vegetation Indicators:
5. Trifolium repens	25 23.8%	FACU	☐ 1 - Rapid Test for Hydrophytic Vegetation ☐ 2 - Dominance Test is > 50%
6	0 0.0%		3 - Prevalence Index is ≤ 3.0 ¹
7	0 0.0%		4 - Morphological Adaptations ¹ (Provide supporting
8	0 0.0%		data in Remarks or on a separate sheet)
10	0		$oxedsymbol{\square}$ Problematic Hydrophytic Vegetation 1 (Explain)
	105 = Total Cove	er	1 Indicators of hydric soil and wetland hydrology must
Woody Vine Stratu (Plot size:)		O1	be present, unless disturbed or problematic.
1	0 0.0%		Hydrophytic
2	0 0.0%		Vegetation
	0 = Total Cove	er	Present? Yes V No V
Domarke, (Include photo numbers here or on a congrete ski	anat)	·	
Remarks: (Include photo numbers here or on a separate sh	ieet.)		
·			

SOIL Sampling Point: upl-ibl-061819-01

Profile Description: (Describe to the			onfirm th	e absence of indicators.)
Depth Matrix (inches) Color (moist)	Color (moist)	dox Features	Loc2	Texture Remarks
	00	<u> 78 </u>	LUC	Silt Loam
12-16 10YR 4/4 1	00			Silty Clay Loam
¹ Type: C=Concentration, D=Depletion, RN	1=Reduced Matrix, CS=Cover	ed or Coated Sand G	rains.	² Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:				Indicators for Problematic Hydric Soils ³ :
Histosol (A1)	Sandy Gleyed	I Matrix (S4)		Coast Prairie Redox (A16)
Histic Epipedon (A2)	Sandy Redox	(S5)		
Black Histic (A3)	Stripped Mate	rix (S6)		Dark Surface (S7)
Hydrogen Sulfide (A4)	Loamy Mucky	Mineral (F1)		☐ Iron Manganese Masses (F12)
Stratified Layers (A5)	Loamy Gleyer			☐ Very Shallow Dark Surface (TF12)
2 cm Muck (A10)	Depleted Mat	rix (F3)		Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Redox Dark S			
Thick Dark Surface (A12)		k Surface (F7)		³ Indicators of hydrophytic vegetation and
Sandy Muck Mineral (S1)	Redox Depre			wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)				unless disturbed or problematic.
Restrictive Layer (if observed):				
Type:				
Depth (inches):				Hydric Soil Present? Yes ○ No ●
Remarks:				
LIVEROLOGY				
HYDROLOGY				
Wetland Hydrology Indicators:				
Primary Indicators (minimum of one is red				Secondary Indicators (minimum of two required
Surface Water (A1)		ned Leaves (B9)		Surface Soil Cracks (B6)
High Water Table (A2)	Aquatic Fau	` '		Drainage Patterns (B10)
Saturation (A3)	_	ic Plants (B14)		Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen S	Sulfide Odor (C1)		Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rh	nizospheres on Living	Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of	Reduced Iron (C4)		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron	Reduction in Tilled S	Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck	Surface (C7)		FAC-Neutral Test (D5)
Inundation Visible on Aerial Imagery	(B7) Gauge or V	/ell Data (D9)		
Sparsely Vegetated Concave Surface	(B8) Other (Expl	ain in Remarks)		
Field Observations:	No Depth (in	-1 >		
Surface Water Present? Yes	1 ,	ches):	-	
Water Table Present? Yes	No O Depth (in	ches):	_	
Saturation Present? (includes applicant frings) Yes	No Depth (in	ches).	Wet	land Hydrology Present? Yes O No 💿
(includes capillally in linge)			_	N. 6
Describe Recorded Data (stream gaug	ge, monitoring well, aeria	pnotos, previous i	nspection	s), if available:
Remarks:				

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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion		City/0	County:	Licking Cou	nty Sampling Date: 18-Jun-19
Applicant/Owner: AEP				State:	OH Sampling Point: upl-jbl-061819-02
Investigator(s): JBL,AEH		Sec	tion, Towr	nship, Range:	s 17 T 2N R 15W
Landform (hillslope, terrace, etc.): Hillsi	de			Local relief (d	concave, convex, none): none
Slope: 0.0% 0.0 ° Lat.:	10 071605		Long:	82.735455	Datum: NAD 1984
				62.735455	NWI classification: NA
Soil Map Unit Name: Amanda silt loa			No. O	(If no o	cylain in Remarks.)
Are climatic/hydrologic conditions on the					
		significantly distu			ornar orrownistances process.
Are Vegetation , Soil SUMMARY OF FINDINGS - A		naturally problem			ded, explain any answers in Remarks.) ns, transects, important features, etc.
	Yes No •				,
Hydrophytic Vegetation Present?	Yes O No O		Is the	e Sampled A	Area
Hydric Soil Present?				n a Wetland	
Wetland Hydrology Present?	Yes ○ No ●				
Remarks:					
VEGETATION - Use scie	ntific names of pla		Oominant		
			Species?	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:		% Cover	Cover	Status	Number of Dominant Species
1			0.0%		That are OBL, FACW, or FAC:O(A)
2			0.0%		Total Number of Dominant
3		_	0.0%		Species Across All Strata:
4			0.0%		Percent of dominant Species
5			0.0% Total Cove		That Are OBL, FACW, or FAC:(A/B)
Sapling/Shrub Stratum (Plot size:)	=	TOTAL COVE	21	Prevalence Index worksheet:
1		0	0.0%		Total % Cover of: Multiply by:
2.			0.0%		OBL species 0 x 1 = 0
3.		0	0.0%		FACW species $0 \times 2 = 0$
4.		0	0.0%		FAC species $0 \times 3 = 0$
5		0	0.0%		FACU species 105 $\times 4 = 420$
Herb Stratum (Plot size:)	=	Total Cove	er	UPL species 0 x 5 = 0
1 Festuca arundinacea		45	42.9%	FACU	Column Totals:
Trifolium repens		15	14.3%	FACU	
3. Trifolium pratense		20	19.0%	FACU	Prevalence Index = B/A =4.000_
4. Plantago lanceolata		25	23.8%	FACU	Hydrophytic Vegetation Indicators:
5		0	0.0%		1 - Rapid Test for Hydrophytic Vegetation
6		0	0.0%		2 - Dominance Test is > 50%
7			0.0%		3 - Prevalence Index is ≤3.0 ¹
8			0.0%		4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)
9			0.0%		Problematic Hydrophytic Vegetation ¹ (Explain)
10			0.0%		1. Indicators of hydric soil and wetland hydrology must
_Woody Vine Stratu (Plot size:)	=	Total Cove	er	be present, unless disturbed or problematic.
1		_ 0	0.0%		
2		0	0.0%		Hydrophytic Vegetation
		=	Total Cove	er	Present? Yes No •
Remarks: (Include photo numbers	here or on a separate	sheet.)			

SOIL Sampling Point: upl-ibl-061819-02

Profile Description: (Describe to the depth n			nfirm the	absence of indicators.)	
Depth Matrix (inches) Color (moist) %	Redox Fea Color (moist) %	tures _Type_1	Loc2	Texture	Remarks
0-17 5YR 4/4 100	Color (Illoist) 78	Type	LUC-		Remarks
<u> </u>					
1 Type: C=Concentration, D=Depletion, RM=Reduc	ed Matrix, CS=Covered or Co	ated Sand Gra	ins.	² Location: PL=Pore Lining. N	M=Matrix.
Hydric Soil Indicators:				Indicators for Problem	natic Hydric Soils 3:
Histosol (A1)	Sandy Gleyed Matrix ((S4)		Coast Prairie Redox (-
Histic Epipedon (A2)	Sandy Redox (S5)			Dark Surface (S7)	410)
Black Histic (A3)	Stripped Matrix (S6)				(540)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral	(F1)		☐ Iron Manganese Mass	
Stratified Layers (A5)	Loamy Gleyed Matrix			☐ Very Shallow Dark Su	
2 cm Muck (A10)	Depleted Matrix (F3)			Other (Explain in Rem	narks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (I	F6)			
Thick Dark Surface (A12)	Depleted Dark Surface	e (F7)		³ Indicators of hydrophy	tic vegetation and
Sandy Muck Mineral (S1)	Redox Depressions (F			wetland hydrology n	nust be present,
5 cm Mucky Peat or Peat (S3)				unless disturbed or	problematic.
Restrictive Layer (if observed):					
Type:					
Depth (inches):				Hydric Soil Present?	Yes ○ No •
Remarks:					
HYDROLOGY					
Wetland Hydrology Indicators:					
Primary Indicators (minimum of one is required;	theck all that annly)			Secondary Indicato	rs (minimum of two required
Surface Water (A1)		oo (DO)			
High Water Table (A2)	Water-Stained Leave			Surface Soil Cra	• •
	= ' ' '			☐ Drainage Patter	• •
Saturation (A3)	True Aquatic Plants			Dry Season Wa	
Water Marks (B1)	Hydrogen Sulfide O	` '	. (00)	Crayfish Burrow	• •
Sediment Deposits (B2)	Oxidized Rhizospher	· ·	oots (C3)		le on Aerial Imagery (C9)
Drift Deposits (B3)	Presence of Reduce				ssed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reducti		Is (C6)	Geomorphic Po	
Iron Deposits (B5)	Thin Muck Surface (FAC-Neutral Te	st (D5)
Inundation Visible on Aerial Imagery (B7)	Gauge or Well Data				
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Re	emarks)			
Field Observations: Surface Water Present? Yes No ()				
	' ' ' -				
Water Table Present? Yes No	Depth (inches): _				v
Saturation Present? (includes consillary frings) Yes No	Depth (inches):		Wetl	and Hydrology Present?	Yes ○ No •
(Includes capillary Iringe)			most! ·) if available	
Describe Recorded Data (stream gauge, mor	illuring well, aerial photos	, previous ins	pections	s), if available:	
Remarks:					

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WETLAND DETERMINATION DATA FORM - Midwest Region

Project/Site: Babbit Station Expansion	City/Cou	nty: Licking Cour	nty	Sampling Date:18-Jun-19
Applicant/Owner: _AEP		State:	OH Sampl	ing Point: upl-jbl-061819-03
Investigator(s): JBL,AEH	Section	n, Township, Range:	S 17 T 2N	R 15W
Landform (hillslope, terrace, etc.): Flat		Local relief (c	oncave, convex, none):	none
Slope: 0.0% 0.0 ° Lat.: 40.075244	10	ong.: -82.736156	_	Datum: NAD 1984
			NWI classifica	
Soil Map Unit Name: Shoals silt loam, 0 to 2 percent slopes, c Are climatic/hydrologic conditions on the site typical for this time of y			plain in Remarks.)	IIIII. NA
				sent? Yes • No •
- restrigulation	gnificantly disturbed		rmal Circumstances" pres	No.
Are Vegetation, Soil, or Hydrology na SUMMARY OF FINDINGS - Attach site map show	turally problematic	•	ded, explain any answers	·
		, po	,	
		Is the Sampled A	irea	
		within a Wetland	l? Yes ○ No ●	
Remarks:				
upland 3 in field				
VEGETATION - Use scientific names of plan		ninant		
		cies? ————————————————————————————————————	Dominance Test wor	ksheet:
<u>Tree Stratum</u> (Plot size:)		over Status	Number of Dominant S	pecies
1		0.0%	That are OBL, FACW, o	r FAC:1(A)
2		0.0%	Total Number of Domin	aant
3		0.0%	Species Across All Strat	a:3(B)
4 5.		0.0%	Percent of dominant	Snecies
J		tal Cover	That Are OBL, FACW	
_Sapling/Shrub_Stratum (Plot size:		tai covei	Prevalence Index wo	rkshoot
1.	0	0.0%	Total % Cover	
2.		0.0%	OBL species	$0 \qquad x \ 1 = \qquad 0$
3.	0	0.0%	FACW species	10 x 2 = 20
4.	0	0.0%	FAC species	25 x 3 = 75
5	0	0.0%	FACU species	65 x 4 = 260
Herb Stratum (Plot size:	0 = To	tal Cover	UPL species	0 x 5 = 0
1 Vernonia gigantea	25 🗹 2	25.0% FAC	Column Totals:	100_ (A)355 (B)
2. Trifolium repens		35.0% FACU		
3. Festuca arundinacea		30.0% FACU	Prevalence Inde	
4. Agrostis stolonifera		0.0% FACW	Hydrophytic Vegetati	
5.	0	0.0%		Hydrophytic Vegetation
6	0	0.0%	2 - Dominance Te	
7	0	0.0%	3 - Prevalence Inc	
8	_0	0.0%		Adaptations ¹ (Provide supporting or on a separate sheet)
9	0	0.0%	Problematic Hydr	ophytic Vegetation ¹ (Explain)
10		0.0%	1 Indicators of hydric	c soil and wetland hydrology must
Woody Vine Stratu (Plot size:)	= To	tal Cover		sturbed or problematic.
1.	0	0.0%		
2.	0	0.0%	Hydrophytic	
	0 = Tot	tal Cover	Vegetation Present? Yes	○ No ●
Remarks: (Include photo numbers here or on a separate sh	eet.)			

SOIL Sampling Point: upl-ibl-061819-03

Profile Description: (Descr	-				onfirm th	e absence of indicators.)
DepthMa (inches)Color (mo	itrix ist) %	Color (moist)	lox Featu %	Type 1	Loc2	Texture Remarks
	3/3 100	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				Silty Clay Loam
			-			
Type: C=Concentration, D=D	enletion PM-Peduce	d Matrix CS=Cover	ad or Coa	ted Sand Gr	aine	² Location: PL=Pore Lining. M=Matrix.
Hydric Soil Indicators:	epietion, Rivi–Reduce	u Matrix, C3-Cover	ed of coa	teu Sanu Gi	all is.	Indicators for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed	Matrix (S	4)		
Histic Epipedon (A2)		Sandy Redox		,		Coast Prairie Redox (A16)
Black Histic (A3)		Stripped Matr				☐ Dark Surface (S7)
Hydrogen Sulfide (A4)		Loamy Mucky		F1)		☐ Iron Manganese Masses (F12)
Stratified Layers (A5)		Loamy Gleyed				☐ Very Shallow Dark Surface (TF12)
2 cm Muck (A10)		Depleted Mati				Other (Explain in Remarks)
Depleted Below Dark Surf	ace (A11)	Redox Dark S		5)		
Thick Dark Surface (A12)		Depleted Dark	Surface	(F7)		³ Indicators of hydrophytic vegetation and
Sandy Muck Mineral (S1)	(= -)	Redox Depres	sions (F8))		wetland hydrology must be present,
5 cm Mucky Peat or Peat						unless disturbed or problematic.
Restrictive Layer (if observ	red):					
Type:						Hydric Soil Present? Yes ○ No ●
Depth (inches):						100 0 110 0
HYDROLOGY						
Wetland Hydrology Indicat						
Primary Indicators (minimum	of one is required; ch			(= -)		Secondary Indicators (minimum of two required
Surface Water (A1)		Water-Stain		s (B9)		Surface Soil Cracks (B6)
High Water Table (A2)		Aquatic Fau	. ,	244)		Drainage Patterns (B10)
Saturation (A3)		True Aquati				Dry Season Water Table (C2)
Water Marks (B1)		☐ Hydrogen S☐ Oxidized Rh			Deets (C2)	Crayfish Burrows (C8)
Sediment Deposits (B2) Drift Deposits (B3)		Presence of		•	KOOIS (C3)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron			oils (CA)	Geomorphic Position (D2)
Iron Deposits (B5)		Thin Muck S			olis (Co)	FAC-Neutral Test (D5)
Inundation Visible on Aer	al Imagery (B7)	Gauge or W	•	•		TAO-Neutral Test (50)
Sparsely Vegetated Conca		Other (Expla				
oparoon regulated const	(50)	Other (Expire	alli ili Keli	idi K5)		
Field Observations:						
Surface Water Present?	Yes O No •	Depth (inc	hes):		_	
Water Table Present?	Yes ○ No ●	Depth (inc	hes):			
Saturation Present?	Yes O No •	Depth (inc			Wet	land Hydrology Present? Yes No 💿
(includes capillary fringe)		•			_	N. (6
Describe Recorded Data (s	ream gauge, moni	toring well, aerial	pnotos,	previous ir	nspection	s), if available:
D I .						
Remarks:						

US Army Corps of Engineers Midwest Region - Version 2.0

WETLAND DETERMINATION DATA FORM - Midwest Region

	Project/Site: Babbit Station Expansion		City/Co	ounty: Licking Cou	nty	Sampling Date: 18-Jun-19
	Applicant/Owner: AEP			State:	OH Sampling	Point: upl-jbl-061819-04
Local relief (concave, convex, none) none non	Investigator(s): _JBL,AEH		Secti	on, Township, Range	: S 17 T 2N	R 15W
Sol May Unit Name Bernination still loam, 2 to 6 percent stopes for climatichydrologic conditions on the site systeal for the time of year? Yes ● No ○ for Verylation				Local relief (concave, convex, none): no	ne
Sol May Unit Name Bernination still loam, 2 to 6 percent stopes for climatichydrologic conditions on the site systeal for the time of year? Yes ● No ○ for Verylation	Slope: 0.0% 0.0 ° Lat	40.073155		 Long : 92 739500	_	Datum: NAD 1984
The climatic hydrologic conditions on the site typical for this time of year? Yes No O				-62.73630 9		
New Vegetation				No (If no o		II. <u>NA</u>
SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes						Voc 🔘 No 🔾
SumMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present?			-		•	
Hydrophytic Vegelation Present?	<u> </u>			`		•
Is the Sampled Area within a Wetland? Yes No Provided Present? Yes No Yes No Present? Yes No Present? Yes No Present? Yes No Present? Yes No Yes No Yes No Yes			3 1	<u> </u>	-,,-	
VeGETATION - Use scientific names of plants. Species Specie	3 1 3 0			Is the Sampled	Area	
VEGETATION - Use scientific names of plants.				within a Wetlan	d? Yes ○ No ●	
VEGETATION - Use scientific names of plants.		Yes UNO S		<u> </u>		
Absolute Rel. Strat. Indicator Nominance Test worksheet: Nominance Test wor	upand 04 in congervance of 2 upla		ınts. Do	minant		
Number of Dominant Species 1		<u>.</u>	Sp		Dominance Test works	heet:
1.	_Tree Stratum_(Plot size:)				
3.				0.0%		
3. 0 0.0% Species Across All Strata: 1 (B) 5. 0 0.0% Percent of dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B) 5. 0 0.0% OBL species 0.0% (A/B) 1. 0 0.0% OBL species 0 1.0% OBL species 0 1.0% At are OBL, FACW, or FAC: 0.0% (A/B) At are OBL, FACW, or FAC: 0.0% (A/B) At are OBL, FACW, or FAC: 0.0% (A/B) At are OBL, FACW, or FAC: 0.0% At a are OBL, FACW, or FAC: 0.0% At a case of Case	2				Total Number of Dominar	ıt .
Sabling/Shrub_Stratum(Plot size:) Percent of dominant Species That Are OBL, FACW, or FAC:						
Sapiling/Shrub Stratum (Plot size:)	-				Dorcont of dominant S	nacios
Sabilino/Shrub_Stratum (Plot size:)	5					
1.	Sanling/Shruh Stratum (Plot size:)	= 1	otal cover	Duavalance Index work	
2.			0	0.0%		
3.	2					
4.						
5. 0 0.0% FACU species 105 x 4 = 420 Herb Stratum (Plot size:) 90 ✓ 85.7% FACU Pleum rotalis: 0 Column Totals: 105 (A) 420 (B) 2. Phleum pratense 10 9.5% FACU Prevalence Index = B/A = 4.000 Prevalence Index = B/A = 4.000 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is > 50% 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Provide supporting data in Remarks or on a separate sheet) 3 - Prevalence Index = B/A = 4.000 4 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet) 1 - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation 1 (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? Hydrophytic Vegetation Present? No ●	4.		0	0.0%	· ·	
Herb Stratum (Plot size:	5		0 🗆	0.0%	FACU species 10	05 x 4 = 420
1. Festuca arundinacea 90 ✓ 85.7% FACU Column Totals: 105 (A) 420 (B) 2. Phleum pratense 10 9.5% FACU Prevalence Index = B/A = 4.000 3. Cirsium arvense 5 4.8% FACU Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is > 50% 1 - Rapid Test for Hydrophytic Vegetation Indicators: 2 - Dominance Test is > 50% 3 - Prevalence Index is ≤3.0 ¹ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 1 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) 1. 105 = Total Cover Hydrophytic Vegetation Present; No €	Herh Stratum (Plot size:)	0 = T	otal Cover	UPL species	o x 5 = 0
2. Phleum pratense 10 9.5% FACU Prevalence Index = B/A = 4.000 3. Cirsium arvense 5 4.8% FACU 4. 0 0.0% Hydrophytic Vegetation Indicators: 5. 0 0.0% 1 - Rapid Test for Hydrophytic Vegetation 6. 0 0.0% 2 - Dominance Test is > 50% 7. 0 0.0% 3 - Prevalence Index is ≤ 3.0 ¹ 9. 0 0.0% 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. 1. Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present?			90	85.7% FACU	Column Totals: 10	05 (A) 420 (B)
3. Cirsium arvense 4.						
4.						
5.	4.		0			
6. 7. 8. 9. 10. Woody Vine Stratu (Plot size:) 1. 2. 0	5		0 🗆	0.0%	I —	
8.				0.0%		
9.						
10.					data in Remarks or	on a separate sheet)
Moody Vine Stratu (Plot size:) 105					Problematic Hydrop	hytic Vegetation ¹ (Explain)
Woody Vine Stratu (Plot size:)	10.				1 Indicators of hydric s	soil and wetland hydrology must
2	Woody Vine Stratu (Plot size:)	<u>105</u> = I	utai Cuvei	be present, unless dist	urbed or problematic.
2	1			0.0%		
	2			0.0%	Venetation	
Remarks: (Include photo numbers here or on a separate sheet.)			0 = T	otal Cover		∕ No [©]
Remarks: (Include photo numbers here or on a separate sheet.)					ı	
	Remarks: (Include photo numbers	here or on a separate	sheet.)			

SOIL Sampling Point: unl-ibl-061819-04

Depth Matrix	Redox Features	firm the absence of indicators.)
(inches) Color (moist) %	1	Loc ² Texture Remarks
0-16 10YR 4/3 100		Sandy Clay Loam
		
¹ Type: C=Concentration, D=Depletion, RM=Red	used Matrix CS=Covered or Coated Sand Grain	is. ² Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:	ded Matrix, C3=Covered or Coated Sand Grain	
Histosol (A1)	Sandy Gleyed Matrix (S4)	Indicators for Problematic Hydric Soils ³ :
Histic Epipedon (A2)	Sandy Redox (S5)	Coast Prairie Redox (A16)
Black Histic (A3)	Stripped Matrix (S6)	Dark Surface (S7)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1)	Iron Manganese Masses (F12)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	☐ Very Shallow Dark Surface (TF12)
2 cm Muck (A10)	Depleted Matrix (F3)	Other (Explain in Remarks)
Depleted Below Dark Surface (A11)	Redox Dark Surface (F6)	
Thick Dark Surface (A12)	Depleted Dark Surface (F7)	³ Indicators of hydrophytic vegetation and
Sandy Muck Mineral (S1)	Redox Depressions (F8)	wetland hydrology must be present,
5 cm Mucky Peat or Peat (S3)		unless disturbed or problematic.
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes No •
Remarks:		
Nethans.		
Nonidiks.		
HYDROLOGY		
HYDROLOGY	; check all that apply)	Secondary Indicators (minimum of two required
HYDROLOGY Wetland Hydrology Indicators:	; check all that apply) Water-Stained Leaves (B9)	Secondary Indicators (minimum of two required Surface Soil Cracks (B6)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required		
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2)	Water-Stained Leaves (B9) Aquatic Fauna (B13)	Surface Soil Cracks (B6) Drainage Patterns (B10)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3)	 Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8)
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1)	□ Water-Stained Leaves (B9) □ Aquatic Fauna (B13) □ True Aquatic Plants (B14) □ Hydrogen Sulfide Odor (C1)	Surface Soil Cracks (B6) Drainage Patterns (B10) Dry Season Water Table (C2) Crayfish Burrows (C8)
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HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one is required Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Field Observations: Surface Water Present? Yes No No Saturation Present?	Water-Stained Leaves (B9) Aquatic Fauna (B13) True Aquatic Plants (B14) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roc Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils Thin Muck Surface (C7) Gauge or Well Data (D9) Other (Explain in Remarks) Depth (inches): Depth (inches):	Surface Soil Cracks (B6) □ Drainage Patterns (B10) □ Dry Season Water Table (C2) □ Crayfish Burrows (C8) □ Saturation Visible on Aerial Imagery (C9) □ Stunted or Stressed Plants (D1) □ Geomorphic Position (D2) □ FAC-Neutral Test (D5) Wetland Hydrology Present? Yes No ●
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US Army Corps of Engineers Midwest Region - Version 2.0

APPENDIX B

OEPA WETLAND ORAM FORMS

Site: AE	P Babbit Expar	nsion Rater(s): J. Lubl	oers; A. Hanner	Date:	6/18/2019
		•	Field Id:	•	
	1 1	Metric 1. Wetland Area (size).	w-jbl-061819-01		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x	0.13 acre	es	
	2 3	Metric 2. Upland buffers and su	rrounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only of WIDE. Buffers average 50m (164ft) or more around MEDIUM. Buffers average 25m to <50m (82 to <16 NARROW. Buffers average 10m to <25m (32ft to < VERY NARROW. Buffers average <10m (<32ft) around 10m (<32ft) aroun	wetland perimeter (7) 4ft) around wetland perimeter (4) 82ft) around wetland perimeter (1) ound wetland perimeter (0)	c.	
	<u> </u>	2b. Intensity of surrounding land use. Select one VERY LOW. 2nd growth or older forest, prairie, saw LOW. Old field (>10 years), shrubland, young secol MODERATELY HIGH. Residential, fenced pasture, HIGH. Urban, industrial, open pasture, row cropping	annah, wildlife area, etc. (7) nd growth forest. (5) park, conservation tillage, new fallow field. (3	3)	
	7.0 10.0	Metric 3. Hydrology.			
max 30 pts.		3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Source or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) Metric 4. Habitat Alteration and	Check all disturbances obser ditch x title dike weir stormwater input x	r human use (1) rest), complex (1) dor (1) ration. Score one or dbl che d/saturated (4) (3) 30cm (12in) (1)	
max 20 pts.		4a. Substrate disturbance. Score one or double None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select only one and as Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double checilon None or none apparent (9) Recovered (6) X Recovering (3) X Recent or no recovery (1)	sign score.	ed shrub/sapling removal herbaceous/aquatic bed ren sedimentation dredging farming nutrient enrichment	noval
		e ORAM v. 5.0 Field Form Quantitative Rating			

Site: AEP Babb	it Exp	ans	ion Rater(s): J. Lubbers;	A. ŀ	Hanner	Date:	6/18/2019
-					Field Id:		
Г	16	l			w-jbl-061819-01		
L		ļ			,5 001010 01		
	ubtotal this p	oage	Matric F. On said Wetlands				
0	16		Metric 5. Special Wetlands.				
max 10 pts.	subtotal		Check all that apply and score as indicated	١.			
			Bog (10)				
			Fen (10) Old growth forest (10)				
			Mature forested wetland (5)				
			Lake Erie coastal/tributary wetland-unrestricted hydrology (10)			
			Lake Erie coastal/tributary wetland-restricted hydrology (5)	,			
			Lake Plain Sand Prairies (Oak Openings) (10)				
			Relict Wet Praires (10)				
			Known occurrence state/federal threatened or endangered	speci	es (10)		
			Significant migratory songbird/water fowl habitat or usage (,			
			Category 1 Wetland. See Question 5 Qualitative Rating (-1	,			
5	21		Metric 6. Plant communities, intersp	ers	ion, microtopography.		
max 20pts.	subtotal		6a. Wetland Vegetation Communities.		Vegetation Community Cove	er Scale	
			Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac	, •	
			Aquatic bed	1	Present and either comprises small par		
		2	Emergent		vegetation and is of moderate quality, o	r comprises a	
		_	Shrub		significant part but is of low quality	tt -ftlll - 0	
		0	Forest Mudflats	2	Present and either comprises significan vegetation and is of moderate quality or	•	
			Open water		part and is of high quality	comprises a smail	
			Other	3	Present and comprises significant part,	or more, of wetland's 3	
			6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	,	
			Select only one.				
			High (5)		Narrative Description of Vegetation C		
			Moderately high(4)		Low spp diversity and/or predominance	of nonnative or low	
			Moderate (3)		disturbance tolerant native species	41	
		Х	Moderately low (2) Low (1)		Native spp are dominant component of although nonnative and/or disturbance t		
			None (0)		can also be present, and species divers		
	l		6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o prese	•	
			Table 1 ORAM long form for list. Add		threatened or endangered spp to		
			or deduct points for coverage		A predominance of native species, with	nonnative spp high	
			Extensive >75% cover (-5)		and/or disturbance tolerant native spp a	bsent or virtually	
			Moderate 25-75% cover (-3)		absent, and high spp diversity and ofter		
		Χ	Sparse 5-25% cover (-1)		the presence of rare, threatened, or end	langered spp	
			Nearly absent <5% cover (0)		Mondalet and Ones Meter Oless Overlin		
			Absent (1)	0	Mudflat and Open Water Class Qualit	У	
			6d. Microtopography. Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		1	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres)	1	
			Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more		
			Standing dead >25cm (10in) dbh		,		
			Amphibian breeding pools		Microtopography Cover Scale		
	•				Absent		
				1	Present very small amounts or if more of	common	
					of marginal quality	£ binbon	
Category 1				2	Present in moderate amounts, but not of quality or in small amounts of highest quality	•	
		т^	TAL (may 400 pto)	_		-	
21	JKAND	10	TAL(max 100 pts)	3	Present in moderate or greater amounts	5	
					and of highest quality		

Site: AEF	Babbit Ex	pansion	Rater(s): J. Lubbe	ers; A. Hanner	Date:	6/18/2019
			• • • • • • • • • • • • • • • • • • • •	Field Id:	•	
	1 ′	1 Metric 1. W	etland Area (size).	w-jbl-061819-02		
max 6 pts	subtotal	>50 acres (>20.2h 25 to <50 acres (1) 10 to <25 acres (4) 3 to <10 acres (1.2 0.3 to <3 acres (0.	0.1 to <20.2ha) (5 pts) to <10.1ha) (4 pts) 2 to <4ha) (3 pts) 12 to <1.2ha) (2pts) 0.04 to <0.12ha) (1 pt)	0.18 acı	res	
	2 3	Metric 2. Up	pland buffers and sur	ounding land use.		
max 14 pts.	subtotal	WIDE. Buffers ave MEDIUM. Buffers NARROW. Buffers X VERY NARROW.	rage 50m (164ft) or more around w average 25m to <50m (82 to <164ft average 10m to <25m (32ft to <82 Buffers average <10m (<32ft) arou	t) around wetland perimeter (4) Ift) around wetland perimeter (1) Ind wetland perimeter (0)	ck.	
		VERY LOW. 2nd g LOW. Old field (>1 x MODERATELY HI	urrounding land use. Select one of growth or older forest, prairie, savar 0 years), shrubland, young second GH. Residential, fenced pasture, prastrial, open pasture, row cropping,	nah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow field.	(3)	
	7.0 10.0	Metric 3. Hy	/drology.			
max 30 pts.	subtotal	High pH groundwater X Precipitation (1) Seasonal/Intermitts Perennial surface v 3c. Maximum wat >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 ts X <0.4m (<15.7in) (1 3e. Modifications None or none apparance (7) Recovered (7) Recovering (3) X Recent or no recovers	ent surface water (3) water (lake or stream) (5) er depth. Select one. o 27.6in) (2)) to natural hydrologic regime. Scarent (12)	3b. Connectivity. Score all t 100 year floodplain (1) X Between stream/lake and othe Part of wetland/upland (e.g. fe X Part of riparian or upland corr 3d. Duration inundation/saturated Semi- to permanently inundat X Regularly inundated/saturated Seasonally inundated (2) X Seasonally saturated in upper ore one or double check and average. Check all disturbances obsuditch title dike weir stormwater input X	er human use (1) prest), complex (1) idor (1) uration. Score one or dbl ch ed/saturated (4) d (3) r 30cm (12in) (1) erved point source (nonstormwate filling/grading road bed/RR track dredging	
max 20 pts.	subtotal		turbance. Score one or double ch	•		
THEN ALL PICE.	16	None or none apparage Recovered (3) Recovering (2) Recorring (2) Recorring (2) Recorring (2) Recorring (2) Recorring (2) Recorring (3) Roderately good (6) Good (5) Moderately good (6) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alterat None or none apparage Recovered (6) X Recovering (3) X Recent or no recorring	arent (4) very (1) popment. Select only one and assi 4) tion. Score one or double check a	gn score.	shrub/sapling removal herbaceous/aquatic bed re	moval
			Form Quantitative Rating			

Site: AEP	Babb	it Exp	ans	sion Rater(s): J. Lubber	rs; A. I	Hanner	Date:	6/18/2019
				•		Field Id:		
	Г	16	1			w-jbl-061819-02		
	L		l			11 15. 001010 02		
		btotal this p	page	Matric 5 On said Watlands				
	0	16		Metric 5. Special Wetlands.				
max 10 pts.	SI	ubtotal		Check all that apply and score as indicated	ted.			
				Bog (10)				
				Fen (10) Old growth forest (10)				
				Mature forested wetland (5)				
				Lake Erie coastal/tributary wetland-unrestricted hydrolo	nav (10)			
				Lake Erie coastal/tributary wetland-restricted hydrology	. ,			
				Lake Plain Sand Prairies (Oak Openings) (10)	` '			
				Relict Wet Praires (10)				
				Known occurrence state/federal threatened or endange	ered speci	es (10)		
				Significant migratory songbird/water fowl habitat or usa	0 ()			
			_	Category 1 Wetland. See Question 5 Qualitative Rating				
	4	20		Metric 6. Plant communities, inter	spers	ion, microtopography.		
max 20pts.	SI	ubtotal		6a. Wetland Vegetation Communities.		Vegetation Community Cove	er Scale	
				Score all present using 0 to 3 scale.		Absent or comprises <0.1ha (0.2471 ac	, ,	
				Aquatic bed	1	Present and either comprises small par		
			2	Emergent		vegetation and is of moderate quality, o	r comprises a	
			_	Shrub		significant part but is of low quality	4t f tl tl O	
			0	Forest Mudflats	2	Present and either comprises significant vegetation and is of moderate quality or	•	
				Open water		part and is of high quality	comprises a smail	
				Other	3	Present and comprises significant part,	or more, of wetland's 3	
				6b. horizontal (plan view) Interspersion.		vegetation and is of high quality	,	
		-		Select only one.				
				High (5)		Narrative Description of Vegetation C		
				Moderately high(4)		Low spp diversity and/or predominance	of nonnative or low	
				Moderate (3)		disturbance tolerant native species	41	
			· ·	Moderately low (2) Low (1)		Native spp are dominant component of although nonnative and/or disturbance		
			Α.	None (0)		can also be present, and species divers		
				6c. Coverage of invasive plants. Refer		moderately high, but generallyw/o prese	•	
				Table 1 ORAM long form for list. Add		threatened or endangered spp to		
				or deduct points for coverage		A predominance of native species, with	nonnative spp high	
				Extensive >75% cover (-5)		and/or disturbance tolerant native spp a	bsent or virtually	
				Moderate 25-75% cover (-3)		absent, and high spp diversity and ofter		
				Sparse 5-25% cover (-1)		the presence of rare, threatened, or end	langered spp	
			Х	Nearly absent <5% cover (0)		Manual State and One on Materia Olera Occality		
				Absent (1)	0	Mudflat and Open Water Class Qualit	У	
				6d. Microtopography. Score all present using 0 to 3 scale.	1	Absent <0.1ha (0.247 acres) Low 0.1 to <1ha (0.247 to 2.47 acres)		
		ı	1	Vegetated hummucks/tussucks		Moderate 1 to <4ha (2.47 to 9.88 acres	1	
				Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more		
				Standing dead >25cm (10in) dbh		,		
				Amphibian breeding pools		Microtopography Cover Scale		
		-				Absent		
					1	Present very small amounts or if more	common	
						of marginal quality	£ binb	
Category 1					2	Present in moderate amounts, but not c quality or in small amounts of highest qu	•	
Category 1	20	DAND	т -	TAL (may 100 pto)			•	
	∠U (MANU	10	TAL(max 100 pts)	3	Present in moderate or greater amounts	5	
						and of highest quality		

	Babbit Expa	nsion	Rater(s): J. Lubbe	ers; A. Hanner	Date:	6/18/2019
	•		• • • • • • • • • • • • • • • • • • • •	Field Id:	•	
	1 1	Metric 1. Wetla	and Area (size).	w-jbl-061819-03	3	
max 6 pts	subtotal	Select one size class >50 acres (>20.2ha) (6 25 to <50 acres (10.1 t 10 to <25 acres (4 to < 3 to <10 acres (1.2 to < 0.3 to <3 acres (0.12 to x 0.1 to <0.3 acres (0.04 <0.1 acres (0.04ha) (0	pts) o <20.2ha) (5 pts) 10.1ha) (4 pts) +44ha) (3 pts) o <1.2ha) (2pts) to <0.12ha) (1 pt)	0.29	acres	
	3 4		nd buffers and suri	ounding land use.		
max 14 pts.	subtotal	WIDE. Buffers average MEDIUM. Buffers aver x NARROW. Buffers aver	e 50m (164ft) or more around w age 25m to <50m (82 to <164ft	t) around wetland perimeter (4) ift) around wetland perimeter (1)	check.	
	<u> </u>	VERY LOW. 2nd grow LOW. Old field (>10 ye x MODERATELY HIGH.	unding land use. Select one of the or older forest, prairie, savar ars), shrubland, young second Residential, fenced pasture, pa I, open pasture, row cropping, I	nah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow fie	eld. (3)	
	6.0 10.0	Metric 3. Hydr	ology.			
max 30 pts.	E	None or none apparent Recovered (7) Recovering (3) x Recent or no recovery	curface water (3) r (lake or stream) (5) epth. Select one. dein) (2) atural hydrologic regime. Sc	Semi- to permanently inuing X Regularly inundated/satur Seasonally inundated (2) X Seasonally saturated in uincre one or double check and average Check all disturbances ditch title dike weir stormwater input	d other human use (1) .g. forest), complex (1) corridor (1) /saturation. Score one or dbl ch ndated/saturated (4) rated (3) pper 30cm (12in) (1) ge.	
max 20 pts.		None or none apparent Recovered (3) Recovering (2) X Recent or no recovery 4b. Habitat developm Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1)	(1) ent. Select only one and assi Score one or double check a	gn score.	oserved X shrub/sapling removal herbaceous/aquatic bed re x sedimentation dredging farming nutrient enrichment	moval
		ge ORAM v. 5.0 Field For				

### Metric 5. Special Wetlands. Check all that apply and score as indicated. Bog (10) Fen (10) Old growth forest (10) Malure forested wetland (5) Lake Eine coastalitributary wetland-unrestricted hydrology (10) Lake Eine coastalitributary wetland-entricted hydrology (10) Lake Eine coastalitributary wetland hydrology (10) Lake Eine Co	Site: AEP Babbit Expans	sion Rater(s): J. Lubbers;	A. H	lanner	Date:	6/18/2019
Metric 5. Special Wetlands. Check all that apply and score as indicated. Pog (10)				Field Id:		
Metric 5. Special Wetlands. Check all that apply and score as indicated. Pog (10)	15			w-ibl-061819-03		
Metric 5. Special Wetlands. Check all that apply and score as indicated. Bog (10) Fen (10) Did growth forest (10) Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (10) Lake Erie coastal/tributary wetland-unrestricted hydrology (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (5) Lake Erie coastal/tributary wetland-unrestricted hydrology (6) Lake Erie coastal/tributary wetland-unrestricted hydrology (7) Rotic Wet Praines (10) Krown occurrence state/federal threatened or endangered species (10) Significant migratory songbirdwater fowl habitat or usage (10) Category 1 Wetland. See Questino S Qualitative Rating (10) Rotic Wet Praines (10) Score all present using 0 to 3 scale. Aguatic bed Erinespert Strutu Direct D				,5 00.0.0 00		
Check all that apply and score as indicated. Bog (10)						
Bog (10) Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coastal/ribulary wetland-unrestricted hydrology (10) Lake Eric coastal/ribulary wetland-artestricted hydrology (5) Lake Plain Sand Prairies (Oak Openings) (10) Relief Wet Prairies (10) Relief We	0 15	Metric 5. Special Wetlands.				
Fen (10) Old growth forest (10) Mature forested wetland (5) Lake Eric coastal/fribulary wetland-sersiriced hydrology (10) Lake Eric coastal/fribulary wetland-sersiriced hydrology (5) Lake Plain Sand Parisines (30) Reliet Wet Praires (10) Romon occurrence state/federal threatened or endangered species (10) Significant migratory songbridwater fowl hebitat or usage (10) Category 1 Wetland See Question So Qualitative Rating (-10) Metric 6. Plant communities, interspersion, microtopography. Wetric 6. Plant communities, interspersion, microtopography. Wetric 6. Plant communities, interspersion, microtopography. Wegetation Community Cover Scale 2. Aqualic bed Persent using 0 to 3 scale. 2. Present and either compress small part of wetlands 1 vegetation and is of moderate quality or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part and is of individually or comprises a small part of wetland's 3 vegetation and is of individually or comprises a significant part, or more, of wetland's 3 vegetation and is of individually or comprises a small part and individually or comp	max 10 pts. subtotal	Check all that apply and score as indicated				
Oid growth forest (10) Mature forested wethand (5) Lake Fire coastal/tribulary wetland-unrestricted hydrology (10) Lake Fire in coastal/tribulary wetland-destricted hydrology (5) Lake Fire in coastal/tribulary wetland-destricted hydrology (6) Relief Wet Prizers (10) Relief Wet Prizers (10) Renow Count of Carlegory (10) Category (10) Categ						
Meture forested wetland-unrestricted hydrology (10) Lake Eric coastal/ir/hutary wetland-unrestricted hydrology (5) Lake Flair coastal/ir/hutary wetland-destricted hydrology (5) Lake Flair coastal/ir/hutary wetland-restricted hydrology (5) Lake Flair coastal/ir/hutary wetland-sestricted hydrology (5) Lake Flair coastal/ir/hutary wetland-sestricted hydrology (5) Relict Wet Praires (10) Rel						
Lake Eric coastal/trivitary welland-unrestricted hydrology (10) Lake File and Sand Prairies (10) Lake File coastal/trivitary welland-restricted hydrology (5) Lake File and Frairies (10) Relict Well Prairies (10) Relict Well Prairies (10) Relict Well Prairies (10) Richym occurrence statefidered threatened or endangered species (10) Significant migratory songbirdwater four habitat or usage (10) Category 1 Welland. See Cuestion 5 Qualitative Rading (-10) Metric 6. Plant communities, interspersion, microtopography. So Wetland Vegetation Communities. Socre all present using 0 to 3 scale. Aquatio bed Energent Shrub O Forest Present and either comprises small part of wetland's 1 vegetation and is of moderate quality or comprises a significant part of wetland's 2 vegetation and is of moderate quality or comprises a small part and is of him Quality Dither Other Bigh (5) Moderately link (1) Moderate (3) Moderately link (2) Low (1) None (0) Co. Coverage of invasive plants. Refer Table 1 ORAM long from for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate (-5% cover (-6)) Absent (1) Relict Well Prairies (10) Metric 6. Plant communities. Socre all present using 0 to 3 scale. Present and comministies equality or comprises a small part of wetland's 2 vegetation and is of himpulative plants and is of moderate quality or comprises a small part and is of himpulative and is of moderate quality or comprises a small part and is of himpulative plants. Narrative Description of Vegetation Quality Low spp diversity and offen plants or low disturbance tolerant native spp can also be green, and species of the native species. With normative spp high and/or disturbance tolerant native spp can also be green, and species diversity moderate to moderately high, but operably we plants and		-l ~				
Lake File coastal/firbulary wetland-restricted hydrology (5) Lake File file coastal/firbulary wetland-restricted hydrology (5) Lake File file coastal/file file file file file file file file		· · · · · · · · · · · · · · · · · ·	10)			
Relict Wet Praires (10) Known occurrence state/federal threatened or endangered species (10) Significant migratory songbird/water fowl habitat or usage (10) Metric 6. Plant communities, interspersion, microtopography. 6a. Wetland See Question 5 Qualitative Rairing (-10) Wetric 6. Plant communities, interspersion, microtopography. 6a. Wetland Vegetation Communities. Score all present using 0 to 3 scale. Aquatic bed 2 Emergent Shrub 6 Forest Copen water Other Other Other Other Other Select only one. High (6) Moderately high(4) Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Extensive 7-75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-5) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 1 Present and either comprises significant part, or more, of wetland's 3 vegetation and is of moderate quality or comprises a small part and is of high quality Present and comprises significant part, or more, of wetland's 3 vegetation and so liph quality Narrative Description of Vegetation Quality Low spd diversity and/or predominance of normative or low disturbance tolerant native spop can also be present, and species diversity moderate to moderately high, but generallywing presence of rare threatened or endangered sp pto to moderately high, but generallywing presence of are threatened or endangered sp pto to moderately high, but generally and often, but not always, the presence of rare, threatened, or endangered sp pto to moderately high, but generally and often, but not always, the presence of rare, threatened, or endangered sp pto to moderately high, but generally and often, but not always, the presence of rare, threatened, or endangered sp pto to moderately high, but generally and often, but not always, the presence of rare threatened or endangered sp pto to moderate to moderately high, but generally and often, but not always, the present usi		-	- /			
Income cocurrence state/federal threatened or endangered species (10)		- · · · · · · · · · · · · · · · · · · ·				
Significant migratory songbird/water fowl habitat or usage (10)		• '				
Metric 6. Plant communities, interspersion, microtopography. Sa. Wetland Vegetation Communities. Vegetation Community Cover Scale		-		es (10)		
Metric 6. Plant communities, interspersion, microtopography.			,			
### Subblotal Score all present using 0 to 3 scale. Aquatic bed A	4 19	-	· .	on microtonography		
Score all present using 0 to 3 scale. Aquatic bed Emergent Shrub O Forest Mudflats Open water Other High (5) Moderately high(4) Moderately low (2) Low (1) X None (0) 6. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Extensive 275% cover (-5) Moderately 275% cover (-5) Moderately 275% cover (-1) X Nearly absent <5% cover (-1) Absent (1) Absent (1) Gd. Microtopography. Score all present using 0 to 3 scale. O Absent or comprises < 0.1ha (0.2471 acres) contiguous area 1 Present and either comprises small part of wetland's 1 vegetation and is of moderate quality or comprises a small part and is of high quality 2 Present and either comprises significant part of wetland's 2 vegetation and is of moderate quality or comprises a small part and is of high quality 3 Present and comprises significant part of wetland's 2 vegetation and is of moderate quality or comprises a small part and is of high quality Arrative Description of Vegetation Quality Low spp diversity and/or predominance of nonnative or low disturbance toleram native species Native spp are dominant component of the vegetation, mod although nonnative and/or disturbance tolerant native spp can also be present, and species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to A predominance of native species, with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp Mudflat and Open Water Class Quality Mudflat and Open Water Class Quality A Desent <0,1 ha (0,247 acres) Moderate 1 to <4ha (2,47 to 2,48 acres) or more Microtopography Cover Scale O Absent 1 Present very small amounts or if more common		•				
Aquatic bed Emergent Shrub Shrub O Forest Mudflats Open water Other Sh. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Moderately high (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct plants (27-5% cover (-5) Moderate 25-75% cover (-5) Moderate 25-75% cover (-1) X Nearly absent -55% c	max 20pts. subtotal	•		,		
Shrub Shru	_	- · · · · · · · · · · · · · · · · · · ·	\rightarrow	• • • • • • • • • • • • • • • • • • • •	, ,	
Shrub Significant part but is of low quality	2	_ ·		·		
Mudflats Open water Other Oth		d °			'	
Open water Other	0		2	Present and either comprises significan	t part of wetland's 2	
Other 6b. horizontal (plan view) Interspersion. Select only one. High (5) Moderately high(4) Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-3) X Nearly absent <5% cover (-1) X Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 2 Vegetated hummucks/tussucks 0 Cocarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools 3 Present and comprises significant part, or more, of wetland's 3 vegetation and is of high quality vegetation and is of high quality Narrative Description of Vegetation Quality Low wsp diversity and/or predominance of nonnative or low disturbance tolerant native species with species with real tolerant native species diversity moderate to moderately high, but generallyw/o presence of rare threatened or endangered spp to A predominance of native species with nonnative spp high and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp Mudflat and Open Water Class Quality Moderate 1 to <4ha (2.47 to 9.98 acres) Microtopography Cover Scale Microtopography Cover Scale A preseminance of native species. with nonnative spp high and/or disturbance tolerant native spp bigh and/or disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare Mary Scale Sca					comprises a small	
Select only one. High (5)		- '	\rightarrow		or more, of wetland's 2	
Select only one. High (5) Moderately high(4) Moderately (3) Moderately low (2) Low (1) X None (0) 6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add or deduct points for coverage Extensive >75% cover (-5) Moderate 25-75% cover (-5) Absent (1) X Nearly absent <5% cover (-1) X Nearly absent <5% cover (0) Absent (1) 6d. Microtopography. Score all present using 0 to 3 scale. 2 Vegetated hummucks/tussucks 0 Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh Amphibian breeding pools Microtopography Cover Scale Discussive Plants Narrative Description of Vegetation Quality Low spp diversity and/or predominance of nonnative or low disturbance tolerant native species Native spp are dominant component of the vegetation, mod although nonnative and/or disturbance tolerant native spp and/or disturbance tolerant native spp moderately high, but generallyw/o presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare threatened or endangered spp to moderately high, but generallyw/o presence of rare threatened or endangered spp to moderate to substantive spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare, threatened, or endangered spp Mudflat and Open Water Class Quality Mudflat and Open Water Class Quality Absent <0.1 ha (0.247 to 2.47 acres) Moderate 1 to <4 ha (2.47 to 9.88 acres) 1 Low 0.1 to <1 ha (0.247 to 2.47 acres) Moderate 1 to <4 ha (2.47 to 9.88 acres) Absent <0.4 ha (2.47 to 9.88 acres) The present very small amounts or if more common					of more, or welland's 3	
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Lef marginal quality				Present very small amounts or if more of marginal quality	common	
2 Present in moderate amounts, but not of highest			\rightarrow		f highest	
Category 1 quality or in small amounts of highest quality	Category 1				•	
19 GRAND TOTAL(max 100 pts) 3 Present in moderate or greater amounts	19 GRAND TO	OTAL(max 100 pts)	3	Present in moderate or greater amounts	3	
and of highest quality		. ,		and of highest quality		

APPENDIX C

OEPA QHEI AND HHEI STREAM FORMS



Primary Headwater Habitat Evaluation Form

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

51	
31	

ENGTH OF STREAM REACH (ft)	200 LAT. 40.07492	LONG82.73493 RIVER CODE	RIVER MILE
ATE 06/18/19 SCORER	jbl,aeh COMMEN	Intermittent	
NOTE: Complete All Items O	n This Form - Refer to "Fie	ld Evaluation Manual for Ohio's PH	WH Streams" for Instruction
TREAM CHANNEL Channelize		RECOVERED RECOVERING	RECENT OR NO RECOVER
		te present. Check ONLY two predominants found (Max of 8). Final metric score is sur	n of boxes A & B.
TYPE DUDD SLADS MS1		/PE	PERCENT MO
BLDR SLABS [16 pts] BOULDER (>256 mm)	[16 pts] 0%	SILT [3 pt] LEAF PACK/WOODY DEBRIS [3	pts] 5%
BEDROCK [16 pt]	0%	FINE DETRITUS [3 pts]	0% Sub
COBBLE (65-256 mm)		CLAY or HARDPAN [0 pt]	
GRAVEL (2-64 mm) [9	pts]	MUCK [0 pts]	5%
SAND (<2 mm) [6 pts]		ARTIFICIAL [3 pts]	
Total of Percentages Bldr Slabs, Boulder, Cobbl	s of 25.00% (A)	Substrate Percentage 100%	(B) A
CORE OF TWO MOST PREDOM		15 TOTAL NUMBER OF SUBST	TRATE TYPES: 6
Maximum Pool Depth (M	easure the maximum pool den	th within the 61 meter (200 ft) evaluation	reach at the time of Poo
		water pipes) (Check ONLY one box):	Ma
> 30 centimeters [20 pts] > 22.5 - 30 cm [30 pts]		> 5 cm - 10 cm [15 pts] < 5 cm [5 pts]	
> 10 - 22.5 cm [25 pts]		NO WATER OR MOIST CHANN	EL [0 pts] 2
COMMENTS		MAYIMUM BOOL DEBTH	
		MAXIMUM POOL DEPTH	(Inches): 6.00
BANK FULL WIDTH (Mea	sured as the average of 3-4 m	easurements) (Check ONLY one	box): Ba
			box): Ba
BANK FULL WIDTH (Mea > 4.0 meters (> 13') [30 pts]) [25 pts]	easurements) (Check ONLY one > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [18	box): Ba
BANK FULL WIDTH (Mea > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13') [25 pts]	easurements) (Check ONLY one > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [18	box): 5 pts] Ba W Ma
BANK FULL WIDTH (Mea > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13' > 1.5 m - 3.0 m (> 9' 7" - 4' 8) [25 pts]	easurements) (Check ONLY one > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [18 < 1.0 m (<=3' 3") [5 pts]	box): 5 pts] Ba W Ma
BANK FULL WIDTH (Mea > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13' > 1.5 m - 3.0 m (> 9' 7" - 4' 8) [25 pts] 3") [20 pts] This info	Check ONLY one > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [18	box): 5 pts] Width (Feet): 3.00
BANK FULL WIDTH (Mea > 4.0 meters (> 13') [30 pts] > 3.0 m - 4.0 m (> 9' 7" - 13' > 1.5 m - 3.0 m (> 9' 7" - 4' 8 COMMENTS) [25 pts] ") [20 pts] This info	easurements) (Check ONLY one > 1.0 m - 1.5 m (> 3' 3" - 4' 8") [18 ≤ 1.0 m (<=3' 3") [5 pts] AVERAGE BANKFULL W rmation must also be completed ☆NOTE: River Left (L) and Right (R) as	box): 5 pts] Width (Feet): 3.00
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ADDITIONAL STREAM INFORMATION (This Information Must Also be	Completed):		
QHEI PERFORMED? - Yes	No QHEI Score	(If Yes, Attach Comple	eted QHEI Form	1)
DOWNSTREAM DESIGNATED	USE(S)			
WWH Name:		Distance	e from Evaluate	ed Stream
CWH Name: _		Distance	e from Evaluate	d Stream
EWH Name:	7	Distance	from Evaluate	d Stream
MAPPING: ATTACH COPIES OF	MAPS, INCLUDING THE ENTIR	RE WATERSHED AREA. C	LEARLY MARK	THE SITE LOCATION
ISGS Quadrangle Name:	N	RCS Soil Map Page:	NRCS Soil	Map Stream Order
ounty:	Township	/ City:		
Photograph Information: 3 photos, upstraction Service Service 3 photos, upstraction Y	ream, downsteam and substra Canopy (% open): 70%	1		
Vere samples collected for water chemist ield Measures: Temp (°C) Distinct the sampling reach representative of the additional comments/description of pollutions.	e stream (Y/N) If not, ple	pH (S.U.) C	onductivity (µml	nos/cm)
Overall Stability of BOTH Stream Banks	s (check one): Stable	Moderately Stable	V	Unstable
Fish Observed? (Y/N) N Voucher? Frogs or Tadpoles Observed? (Y/N) N Comments Regarding Biology:	(Y/N) Salamanders Obse Voucher? (Y/N) N Aquatic M	erved? (Y/N) N Vouch Macroinvertebrates Observ	ner? (Y/N) N red? (Y/N) N	Voucher? (Y/N)
DRAWING AND NARR. Include important landmarks and of Stream head	pa			
1 1 1	/ hh-jbl-061819-01	pasture		/ / / / / / / / / / / / / / / / / / / /



Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 63.5

Stream & Location: AEP Babbitt Station Expansion Project	RM:	Date: 6/18/2019
qh-jbl-061819-01; South Fork Licking River Scorers Full Name & Affiliation	on: AEH, JBL	/ AECOM
River Code: STORET #: Lat./ Long.: 40.0744	83, -82.73684	Office verified location
11 SURSTRATE Check ONLY Two substrate TYPE BOXES:	SILT [0] SILT [0] SILT [0] SILT	Perage) QUALITY HEAVY [-2] MODERATE [-1] NORMAL [0] FREE [1] MODERATE [-1] MODERATE [-1] NORMAL [0] NORMAL [0] NORMAL [0] NONE [1]
2] INSTREAM COVER Indicate presence 0 to 3: 0-Absent; 1-Very small amounts or if more conquality; 2-Moderate amounts, but not of highest quality or in small amounts amounts; 3-Highest quality in moderate or greater amounts (e.g., very large boulders in deep or fast w diameter log that is stable, well developed rootwad in deep / fast water, or deep, well-defined, function UNDERCUT BANKS [1] POOLS > 70cm [2] OXBOWS, BACKW OVERHANGING VEGETATION [1] ROOTWADS [1] AQUATIC MACROF SHALLOWS (IN SLOW WATER) [1] BOULDERS [1] LOGS OR WOODY ROOTMATS [1]	chater, large challenge ch	AMOUNT neck ONE (Or 2 & average) EXTENSIVE >75% [11] MODERATE 25-75% [7] SPARSE 5-<25% [3] NEARLY ABSENT <5% [1] Cover Maximum 20
3] CHANNEL MORPHOLOGY Check ONE in each category (Or 2 & average) SINUOSITY DEVELOPMENT CHANNELIZATION STABILITY HIGH [4]		Channel Maximum 20
4] BANK EROSION AND RIPARIAN ZONE Check ONE in each category for EACH BANK River right looking downstream RIPARIAN WIDTH FLOOD PLAIN QUAL FROSION WIDE > 50m [4] FOREST, SWAMP [3] SHRUB OR OLD FIELD [2] SHRUB OR OLD FIELD [2] RESIDENTIAL, PARK, NEW FIELD PLAIN PROBLEM FOR STATE [4] SHRUB OR OLD FIELD [4] SHRUB OR OLD FIELD [5] SHRUB OR OLD FIELD [6] SHRUB OR OLD FIE	ALITY CO CO CITY NIN CO CITY C	NSERVATION TILLAGE [1] BAN OR INDUSTRIAL [0] IING / CONSTRUCTION [0] redominant land use(s)
	[1] STITIAL [-1] MITTENT [-2] S [1]	Recreation Potential Primary Contact Secondary Contact circle one and comment on back) Pool / Current Maximum 12
Indicate for functional riffles; Best areas must be large enough to support of riffle-obligate species: Check ONE (Or 2 & average). Check ONE (Or 2 & average)	RIFFLE / RUN I	NO RIFFLE [metric=0] EMBEDDEDNESS IE [2]
6] GRADIENT (- ft/mi)	\prec	20 Gradient 4

APPENDIX D DELINEATED FEATURES PHOTOGRAPHS



D1 – DELINEATED WETLANDS



PHOTOGRAPHIC RECORD WETLANDS

Client Name: Site Location: Project No.

AEP Babbitt Station Expansion Project 60605808

Photo No. 1

Date:

June 18, 2019

Description:

Wetland 01

PFO wetland

Category 1



Facing North



Facing South



Facing East



Facing West



Soil Pit



PHOTOGRAPHIC RECORD **WETLANDS**

Project No. **Client Name:** Site Location:

Babbitt Station Expansion Project AEP 60605808

Photo No. 2

Date:

June 18, 2019

Description:

Wetland 02

PEM Wetland

Category 1



Facing North



Facing South



Facing East



Facing West



Soil Pit



PHOTOGRAPHIC RECORD **WETLANDS**

Project No. **Client Name:** Site Location:

AEP 60605808 **Babbitt Station Expansion Project**

Photo No. 3

Date:

June 18, 2019

Description:

Wetland 03

PEM wetland

Category 1



Facing North



Facing South



Facing East



Facing West



Soil Pit



D2 –ASSESSED STREAMS



PHOTOGRAPHIC RECORD STREAMS

Client Name: Site Location: Project No.

AEP Babbitt Station Expansion Project 60605808

Photo No. 1

Date:

June 18, 2019

Description:

Stream 02

Perennial

Good Warmwater



Facing Upstream



Facing Downstream



Substrate

APPENDIX E

CORRESPONDENCE LETTERS FROM USFWS AND ODNR

Office of Real Estate
Paul R. Baldridge, Chief
2045 Morse Road – Bldg. E-2
Columbus, OH 43229
Phone: (614) 265-6649
Fax: (614) 267-4764

May 6, 2019

Audrey Hanner AECOM 525 Vine Street, Suite 1800 Cincinnati, Ohio 45202

Re: 19-295; Babbitt Station Expansion Project

Project: The proposed project involves the expansion of the existing Babbitt Station.

Location: The proposed project is located in Jersey Township, Licking County, Ohio.

The Ohio Department of Natural Resources (ODNR) has completed a review of the above referenced project. These comments were generated by an inter-disciplinary review within the Department. These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the National Environmental Policy Act, the Coastal Zone Management Act, Ohio Revised Code and other applicable laws and regulations. These comments are also based on ODNR's experience as the state natural resource management agency and do not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Natural Heritage Database: The Natural Heritage Database has no records at or within a one-mile radius of the project area.

A review of the Ohio Natural Heritage Database indicates there are no other records of state endangered or threatened plants or animals within the project area. There are also no records of state potentially threatened plants, special interest or species of concern animals, or any federally listed species. In addition, we are unaware of any unique ecological sites, geologic features, animal assemblages, scenic rivers, state wildlife areas, state nature preserves, state or national parks, state or national wildlife refuges, or other protected natural areas within the project area. The review was performed on the project area you specified in your request as well as an additional one-mile radius. Records searched date from 1980.

Please note that Ohio has not been completely surveyed and we rely on receiving information from many sources. Therefore, a lack of records for any particular area is not a statement that rare species or unique features are absent from that area. Although all types of plant communities have been surveyed, we only maintain records on the highest quality areas.

Fish and Wildlife: The Division of Wildlife (DOW) has the following comments.

The DOW recommends that impacts to streams, wetlands and other water resources be avoided and minimized to the fullest extent possible, and that best management practices be utilized to minimize erosion and sedimentation.

The project is within the range of the Indiana bat (Myotis sodalis), a state endangered and federally endangered species. The following species of trees have relatively high value as potential Indiana bat roost trees to include: shagbark hickory (Carya ovata), shellbark hickory (Carya laciniosa), bitternut hickory (Carya cordiformis), black ash (Fraxinus nigra), green ash (Fraxinus pennsylvanica), white ash (Fraxinus americana), shingle oak (Quercus imbricaria), northern red oak (Ouercus rubra), slippery elm (Ulmus rubra), American elm (Ulmus americana), eastern cottonwood (Populus deltoides), silver maple (Acer saccharinum), sassafras (Sassafras albidum), post oak (Quercus stellata), and white oak (Quercus alba). Indiana bat roost trees consists of trees that include dead and dying trees with exfoliating bark, crevices, or cavities in upland areas or riparian corridors and living trees with exfoliating bark, cavities, or hollow areas formed from broken branches or tops. However, Indiana bats are also dependent on the forest structure surrounding roost trees. If suitable habitat occurs within the project area, the DOW recommends trees be conserved. If suitable habitat occurs within the project area and trees must be cut, the DOW recommends cutting occur between October 1 and March 31. If suitable trees must be cut during the summer months, the DOW recommends a net survey be conducted between June 1 and August 15, prior to any cutting. Net surveys should incorporate either nine net nights per square 0.5 kilometer of project area, or four net nights per kilometer for linear projects. If no tree removal is proposed, this project is not likely to impact this species.

The project is within the range of the fawnsfoot (*Truncilla donaciformis*), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size, this project is not likely to impact this species.

The project is within the range the lake chubsucker (*Erimyzon sucetta*) a state threatened fish. The DOW recommends no in-water work in perennial streams from April 15 through June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed in a perennial stream, this project is not likely to impact this or other aquatic species.

The project is within the range of the eastern massasauga (*Sistrurus catenatus*), a state endangered and a federally threatened snake species. The eastern massasauga uses a range of habitats including wet prairies, fens, and other wetlands, as well as drier upland habitat. Due to the location, and the type of habitat present at the project site and within the vicinity of the project area, this project is not likely to impact this species.

Due to the potential of impacts to federally listed species, as well as to state listed species, we recommend that this project be coordinated with the U.S. Fish & Wildlife Service.

Water Resources: The Division of Water Resources has the following comment.

The local floodplain administrator should be contacted concerning the possible need for any floodplain permits or approvals for this project. Your local floodplain administrator contact information can be found at the website below.

 $\frac{http://water.ohiodnr.gov/portals/soilwater/pdf/floodplain/Floodplain%20Manager%20Community%20Contact%20List_8_16.pdf}{}$

ODNR appreciates the opportunity to provide these comments. Please contact Sarah Tebbe, Environmental Specialist, at (614) 265-6397 or Sarah.Tebbe@dnr.state.oh.us if you have questions about these comments or need additional information.

John Kessler Environmental Services Administrator

Hanner, Audrey

From: susan_zimmermann@fws.gov on behalf of Ohio, FW3 <ohio@fws.gov>

Sent: Friday, April 05, 2019 8:34 AM

To: Hanner, Audrey

Subject: AEP - Babbitt Station Expansion Project, Licking County



UNITED STATES DEPARTMENT OF THE INTERIOR U.S. Fish and Wildlife Service Ecological Services Office 4625 Morse Road, Suite 104 Columbus, Ohio 43230 (614) 416-8993 / Fax (614) 416-8994



TAILS# 03E15000-2019-TA-0973

Dear Ms. Hanner,

We have received your recent correspondence regarding potential impacts to federally listed species in the vicinity of the above referenced project. There are no federal wilderness areas, wildlife refuges or designated critical habitat within the vicinity of the project area. We recommend that proposed activities minimize water quality impacts, including fill in streams and wetlands. Best management practices should be utilized to minimize erosion and sedimentation.

FEDERALLY LISTED, PROPOSED, AND CANDIDATE SPECIES COMMENTS: Due to the project type, size, location, and the proposed implementation of seasonal tree cutting (clearing of trees ≥3 inches diameter at breast height between October 1 and March 31) to avoid impacts to the federally listed endangered **Indiana bat** (*Myotis sodalis*) and threatened **northern long-eared bat** (*Myotis septentrionalis*), we do not anticipate adverse effects to any federally endangered, threatened, proposed or candidate species. Should the project design change, or during the term of this action, additional information on listed or proposed species or their critical habitat become available, or if new information reveals effects of the action that were not previously considered, consultation with the U.S. Fish and Wildlife Service (Service) should be initiated to assess any potential impacts.

If there is a federal nexus for the project (e.g., federal funding provided, federal permits required to construct), no tree clearing should occur on any portion of the project area until consultation under section 7 of the Endangered Species Act (ESA), between the Service and the federal action agency, is completed. We recommend that the federal action agency submit a determination of effects to this office, relative to the Indiana bat and northern long-eared bat, for our review and concurrence.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), ESA, and are consistent with the intent of the National Environmental Policy Act of 1969 and the Service's Mitigation Policy. This letter provides technical assistance only and does not serve as a completed section 7 consultation document. We recommend that the project be coordinated with the Ohio Department of Natural Resources due to the potential for the project to affect state listed species and/or state lands. Contact John Kessler, Environmental Services Administrator, at (614) 265-6621 or at john.kessler@dnr.state.oh.us.

If you have questions, or if we can be of further assistance in this matter, please contact our office at (614) 416-8993 or ohio@fws.gov.

Sincerely,

Patraufil

Patrice M. Ashfield Field Office Supervisor This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

12/18/2019 12:07:55 PM

in

Case No(s). 19-2119-EL-BLN

Summary: Letter of Notification Letter of Notification for the Babbitt 345/138kV Station Project electronically filed by Tanner Wolffram on behalf of AEP Ohio Transmission Company, Inc.