

APPENDIX A

U.S. ARMY CORPS OF ENGINEERS WETLAND FORMS

Project/Site: Brownhelm-Beaver-Black River	City/County: Lora	n Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: OH Sampling Point: w-jbl-071018-02
Investigator(s): JBL,AEH	Section, Townsl	nip, Range: S. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Lowland		e, convex, none): concave Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R La	t.: 41.427326	Long.: -82.263555 Datum: NAD 83
Soil Map Unit Name: FuA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time	of year? Yes	No (If no, explain in Remarks.)
	·	Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology natura		(If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing		, , , ,
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	Is the Sam within a W	
Wetland Hydrology Present? Yes No	within a w	etiality
Hydrology Wetland Hydrology Indicators:		_Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply	v)	Surface Soil Cracks (B6)
✓ Surface Water (A1) Water-Stained Water-Stained	• •	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna Saturation (A3) Marl Deposits		Moss Trim Lines (B16)
☐ Saturation (A3) ☐ Marl Deposits ☐ Water Marks (B1) ☐ Hydrogen Sulf		☐ Dry Season Water Table (C2)☐ Crayfish Burrows (C8)
	ide Odor (CI) ospheres along Living Roots	
	educed Iron (C4)	Stunted or Stressed Plants (D1)
	eduction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Sur	• •	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
	es): 1	
Water Table Present? Yes No Depth (inche	es):	/etland Hydrology Present? Yes ● No ○
Saturation Present? (includes capillary fringe) Yes No Depth (inches	es):	/etland Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitoring well, aerial ph	otos, previous inspection	ns), if available:
Remarks:		
Terrano.		

vegeration - ose scientific fiames of pr	iaiits			Sampling Point: w-jbl-071018-02
(0)	Absolute	Dominant Species?	Illuicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata: 2 (B)
4	0			
5				Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
		= Total Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)		_		OBL species 95 x 1 = 95
1 . Cornus alba		✓	FACW	FACW species <u>8</u> x 2 = <u>16</u>
2				FAC species $0 \times 3 = 0$
3	0			FACU species $0 \times 4 = 0$
4	0			
5	0			
6	0			Column Totals: <u>103</u> (A) <u>111</u> (B)
7	0			Prevalence Index = B/A =1.078_
		= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Typha x glauca	85	✓	OBL	✓ Dominance Test is > 50%
2. Leersia oryzoides	10		OBL	
3. Phalaris arundinacea	5		FACW	✓ Prevalence Index is ≤3.0 ¹
4				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				Problematic Hydrophytic Vegetation (Explain)
7				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9			-	
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	100 =	= Total Cove	r	greater than 3.28 ft (1m) tall
	0			Harb All barbasagus (non woody) plants, regardless of
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	=	Total Cove	r	
				Hydrophytic Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate s	sheet.)			
	•			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-071018-02

Profile Descri	iption: (De	scribe to	the depth	needed to docume	nt the ind	icator or c	onfirm the	e absence of indicators.)
Depth		Matrix			edox Feat	ures		_
(inches)	Color	(moist)	%	Color (moist)	%	Type 1	Loc ²	Texture Remarks
0-11	10YR	5/2	90	10YR 5/6	10	С	М	Silty Clay Loam
11-16	10YR	5/1	85	10YR 5/6	10	С	М	Silty Clay Loam
					_			
		-		-			-	
	-			-				
								· · · · · · · · · · · · · · · · · · ·
¹ Type: C=Conc	centration. D	=Depletio	n. RM=Redi	uced Matrix, CS=Cove	ered or Coat	ed Sand Gra	ains ² Loca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I		• •		<u> </u>				
Histosol (A				Polyvalue Be	low Surface	(S8) (I DD I	2	Indicators for Problematic Hydric Soils: 3
	pedon (A2)			MLRA 149B)	Juliace	(JU) (LINK I	٧,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histi				Thin Dark Su	rface (S9)	(LRR R, MLF	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
				Loamy Muck				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4))		Loamy Gleye				Dark Surface (S7) (LRR K, L, M)
	Layers (A5)			✓ Depleted Ma	-	-)		Polyvalue Below Surface (S8) (LRR K, L)
	Below Dark		11)	Redox Dark				☐ Thin Dark Surface (S9) (LRR K, L)
	k Surface (A			Depleted Da				☐ Iron-Manganese Masses (F12) (LRR K, L, R)
	ck Mineral (S			✓ Redox Depre		-7)		Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S4)		▼ Redox Depre	5510115 (F6)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Rec	dox (S5)							Red Parent Material (F21)
Stripped M	/latrix (S6)							Very Shallow Dark Surface (TF12)
Dark Surfa	ace (S7) (LR	R R, MLRA	149B)					Other (Explain in Remarks)
3Indicators of	hydrophytic	- vegetatio	n and wetla	nd hydrology must be	nrecent III	nlace dictur	and or proble	
			ii ana weda	ina nyarology mast bi	present, u	nicss distuit	oca or proble	ichiade.
Restrictive La	ayer (if obs	served):						
Туре:								Hadda Call Brancons W. O. N. O.
Depth (inch	nes):							Hydric Soil Present? Yes ● No ○
Remarks:								

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: Of	H Sampling Point: w-jbl-071018-03
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R Lat.:	41.426640 Lon	g.: -82.263029
Soil Map Unit Name: FuA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y	vear? Yes ● No ○	(If no, explain in Remarks.)
	,	I Circumstances" present? Yes No
		explain any answers in Remarks.)
Summary of Findings - Attach site map showing	(======================================	
Hydrophytic Vegetation Present? Yes No		, , , ,
Hydric Soil Present? Yes No	Is the Sampled Area	Yes ● No ○
Wetland Hydrology Present? Yes No	within a Wetland?	100 0 110 0
Wetland 3 Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) High Water Table (A2) Saturation (A3) Water Marks (B1) Hydrogen Sulfide (B15)	3)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (C2) Crayfish Burrows (C8)
Trydrogen Sunide (neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)		Stunted or Stressed Plants (D1) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	e (C7)	☐ Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in F☐ Sparsely Vegetated Concave Surface (B8)	Remarks)	✓ Microtopographic Relief (D4)✓ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches):		
. , ,		
Water Table Present? Yes No Depth (inches):	Wotland Hyd	Irology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	10	irology Present: 165 © 140 ©
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous inspections), if availa	able:
Remarks:		

vegeration - ose scientific fiames of p	iaiits			Sampling Point: w-jbl-071018-03
(0)	Absolute	Dominant	Illaicacoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:1 (B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
		= Total Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species <u>15</u> x 1 = <u>15</u>
1				FACW species <u>85</u> x 2 = <u>170</u>
2				FAC species $0 \times 3 = 0$
3	0			FACU species $0 \times 4 = 0$
4	0			
5	0			or L species
6	0			Column Totals: <u>100</u> (A) <u>185</u> (B)
7				Prevalence Index = B/A =1.850_
		= Total Cove	er	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				✓ Rapid Test for Hydrophytic Vegetation
1. Phragmites australis	60	✓	FACW	✓ Dominance Test is > 50%
2. Carex vulpinoidea	5		OBL	
3. Phalaris arundinacea	10		FACW	✓ Prevalence Index is ≤3.0 ¹
4 Juncus effusus	5		OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5 Dichanthelium clandestinum	10		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6 Scirpus cyperinus	-		OBL	
7 Onoclea sensibilis			FACW	¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9			-	Definitions of Vegetation Strata
0				To Manda de la (7.0 and a manda disposition de
1				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2				a court noight (2211), regardless of meight
Z		 = Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- I Otal Cove	31	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Manakusina Allusaadusinaa ayaatan than 2,00 ft in
4			-	Woody vine - All woody vines greater than 3.28 ft in height.
т	0 =	= Total Cove		
		- I Otal Cove	21	
				Hydrophytic
				Vegetation Vac A Na O
				Present? Yes No O
Remarks: (Include photo numbers here or on a separate s	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-071018-03

Profile Descri	iption: (De	scribe to	the depth	needed to docum	ent the ind	licator or c	onfirm the	e absence of indicators.)
Depth		Matrix			Redox Feat	tures		_
(inches)		(moist)	%	Color (moist)		Type ¹		Texture Remarks
0-7	10YR	4/2	95	10YR 4/6	5	C	M	Silty Clay Loam
7-16	10YR	5/3	90	10YR 4/6	10	С	M	Silty Clay Loam
					-			
					-			
1 Type: C=Cond	centration D	=Denletio	n. RM=Red	uced Matrix. CS=Cov	ered or Coat	ted Sand Gra	ains ² l oca	ation: PL=Pore Lining. M=Matrix
Hydric Soil I		_ cpictio			50 01 0000	Junia Oli	2000	
Histosol (A				Polyvalue Be	alow Surface	(S8) (IDD I	2	Indicators for Problematic Hydric Soils: 3
	pedon (A2)			MLRA 149B)		(30) (LRK I	`,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histi				Thin Dark S	urface (S9)	(LRR R, MLF	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
	Sulfide (A4)			Loamy Muck	y Mineral (F	1) LRR K, L))	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Layers (A5)	•		Loamy Gleye	ed Matrix (F2	2)		Dark Surface (S7) (LRR K, L, M)
	Below Dark	Surface (A	11)	✓ Depleted Ma				Polyvalue Below Surface (S8) (LRR K, L)
	k Surface (A:		11)	Redox Dark)		☐ Thin Dark Surface (S9) (LRR K, L)
	ck Mineral (S			Depleted Da				Iron-Manganese Masses (F12) (LRR K, L, R)
	eyed Matrix (✓ Redox Depre				☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Rec		JT)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped M								Red Parent Material (F21)
	ace (S7) (LR	D D MIDA	1/0R)					☐ Very Shallow Dark Surface (TF12)
								Other (Explain in Remarks)
³ Indicators of	f hydrophytic	vegetatio	n and wetla	and hydrology must b	e present, u	ınless disturl	bed or proble	lematic.
Restrictive La	ayer (if obs	served):						
Туре:								
Depth (inch	hes):							Hydric Soil Present? Yes ● No ○
Remarks:								
I								

Project/Site: Brownhelm-Beaver-Black River	City/County:	Lorain	Samplin	19 Date: 09-Jul-18
Applicant/Owner: FirstEnergy		State: OH	Sampling Point:	w-jbl-070918-01
Investigator(s): JBL,AEH	Section, To	ownship, Range: S.	T. 7N	R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (c	oncave, convex, nor	ie): concave	Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R Lat.:	41.420329	Long.:	-82.263102	Datum: NAD 83
Soil Map Unit Name: FUA			NWI classification:	N/A
Are climatic/hydrologic conditions on the site typical for this time of	vear? Ye	s • No O	f no, explain in Remark	s.)
	tly disturbed?	\-	rcumstances" present?	Yes No
	problematic?		•	
	•		olain any answers in Re	•
Summary of Findings - Attach site map showing	sampling p	Doint locations	s, transects, impo	ortant reatures, et
Hydrophytic Vegetation Present? Yes No O	Is the	e Sampled Area		
Hydric Soil Present? Yes No		n a Wetland?	Yes No	
Wetland Hydrology Present? Yes No				
Hydrology				
Wetland Hydrology Indicators:		<u>_S</u>	econdary Indicators (minim	
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Lea	(DO)		Surface Soil Cracks (B6)Drainage Patterns (B10)	
Surface Water (A1) High Water Table (A2) Water-Stained Let Aquatic Fauna (B:	` '		Moss Trim Lines (B16)	
✓ Saturation (A3)	-		Dry Season Water Table	e (C2)
Water Marks (B1) Hydrogen Sulfide	-		_ '	
	heres along Living	Roots (C3)	Saturation Visible on Ae	rial Imagery (C9)
Drift deposits (B3)			Stunted or Stressed Plan	
Algal Mat or Crust (B4) Recent Iron Redu	ction in Tilled Soil	ls (C6)	✓ Geomorphic Position (D	2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	e (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks)		Microtopographic Relief	(D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)	
Field Observations:				
Surface Water Present? Yes O No O Depth (inches):				
Water Table Present? Yes O No O Depth (inches):			- v	N . ()
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	9	Wetland Hydrol	ogy Present? Yes	No O
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous insp	pections), if available	e:	
Remarks:				

(Diet size)	Absolute		dicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species: St	atus	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:3 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:3 (B)
4	0			
5	0			Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
(5)	0 =	= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 45 x 1 = 45
1	0			FACW species $40 \times 2 = 80$
2	0			FAC species $\frac{17}{100} \times 3 = \frac{51}{100}$
3	0			
4	•			FACU species $0 \times 4 = 0$
5	0			UPL species $0 \times 5 = 0$
6				Column Totals: <u>102</u> (A) <u>176</u> (B)
7				Prevalence Index = B/A = 1.725
		= Total Cover		, <u> </u>
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators:
1 Juncus effusus	20	✓ 0	BL	Rapid Test for Hydrophytic Vegetation
2. Scirpus atrovirens	15		BL	✓ Dominance Test is > 50%
3 Agrostis stolonifera	15		ACW	⊘ Prevalence Index is ≤3.0 ¹
A. Minnesteeline ideale siin			AC	Morphological Adaptations ¹ (Provide supporting
4. microstegium vimineum 5. Carex lurida	10		BL	data in Remarks or on a separate sheet)
O. Dhalada amundina an	25		ACW	Problematic Hydrophytic Vegetation ¹ (Explain)
•			ACVV	¹ Indicators of hydric soil and wetland hydrology must
7		H -		be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9		<u> </u>		Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12	0			 Sapling/shrub - Woody plants less than 3 in. DBH and
(District)	102	= Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1		-		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2		Ц –		size, and woody plants less than 5.20 it tall.
3	0	<u> </u>		Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cover		
				Hydrophytic
				Vegetation
				1.555.15
Remarks: (Include photo numbers here or on a separate sh	neet.)			

Sampling Point: w-jbl-070918-01

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-070918-01

nches)		Matrix			Redox Feat	ures			
	Color (<u>%</u>	Color (mois				Texture	Remarks
0-7	10YR	5/2	95	7.5R 4/	6 5	C		Clay Loam	
7-16	10YR	5/1	90	7.5YR 4,	6 10	C	M	Clay Loam	
			-						
ne: C=Conc	entration. D	=Depletion	n. RM=Redu	iced Matrix, CS=Co	vered or Coat	ed Sand Gra	ins ² Locat	ion: PL=Pore Lining. M=Ma	trix
	ndicators:	,		. , 00					
Histosol (/				Polyvalue	Below Surface	(S8) (IRP F	2.		ematic Hydric Soils: 3
	pedon (A2)			MLRA 149		(SO) (LINIT	٠,		LRR K, L, MLRA 149B)
Black Histi				Thin Dark	Surface (S9)	(LRR R, MLF	RA 149B)		x (A16) (LRR K, L, R)
	Sulfide (A4)			Loamy Mu	cky Mineral (F	1) LRR K, L)			or Peat (S3) (LRR K, L, R)
	Layers (A5)				yed Matrix (F2			Dark Surface (S7)	
		Surface (A	11)	✓ Depleted N					urface (S8) (LRR K, L)
	ted Below Dark Surface (A11) Dark Surface (A12) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L) Redox Dark Surface (F6) Type Management Masses (F13) (LRR K, L)								
					Oark Surface (I			Iron-Manganese M	asses (F12) (LRR K, L, R)
	ck Mineral (S			✓ Redox Dep				Piedmont Floodpla	in Soils (F19) (MLRA 149B)
	yed Matrix (S	5 4)		,				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Red								Red Parent Materia	al (F21)
Stripped N								Very Shallow Dark	Surface (TF12)
Dark Surfa	ace (S7) (LRF	R, MLRA	149B)					Other (Explain in F	Remarks)
dicators of	hydrophytic	vegetation	n and wetlar	nd hydrology must	be present, u	nless disturt	ed or proble	ematic.	
trictive La	ayer (if obs	erved):							
Type: <u>ar</u>		,.							
								Hydric Soil Present?	Yes 💿 No 🔾
epth (inch	100):								
Depth (inch	.00).								
Depth (inch	<u></u>								
Depth (inch	<u></u>								
epth (inch	<u>-</u>								
Depth (inch	<u>-</u>								
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Depth (inch									

Project/Site: Brownhelm-Beaver-Black	River		City/County:	Lorain	Sam	ppling Date: 09-Jul-18
Applicant/Owner: FirstEnergy				State: OH	Sampling Poin	t: w-jbl-070918-02
Investigator(s): JBL,AEH			Section, To	ownship, Range:	S. T. 7N	R. 18W
Landform (hillslope, terrace, etc.):	Lowland			oncave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R		Lat.:	41.418587	Long	-	Datum: NAD 83
Soil Map Unit Name: Mr, FuA			71.710507		NWI classification	
Are climatic/hydrologic conditions o	n the site to	voical for this time of	vear? Ye	s • No O	— (If no, explain in Rem	<u> </u>
Are Vegetation, Soil	, or Hydrol		itly disturbed?		Circumstances" prese	,
			•		•	
Are Vegetation , Soil <u></u> Summary of Findings - At	or Hydrol, tack cit		problematic?	,	explain any answers in	•
			Samping p	- Totalioi	is, transects, in	iiportant reatures, et
Hydrophytic Vegetation Present?	Yes	No O	Is the	e Sampled Area		
Hydric Soil Present?	Yes	No O		n a Wetland?	Yes ● No ○	
Wetland Hydrology Present? Remarks: (Explain alternative production)	Yes •	No O				
Hadrala arr						
Hydrology						
Wetland Hydrology Indicators:					Secondary Indicators (m	
Primary Indicators (minimum of on	e required;				Surface Soil Cracks	
✓ Surface Water (A1) High Water Table (A2)		Water-Stained Lea Aquatic Fauna (B1			Drainage Patterns (Moss Trim Lines (B)	•
Saturation (A3)		Marl Deposits (B1	-		Dry Season Water	•
Water Marks (B1)		Hydrogen Sulfide	•		Crayfish Burrows (C	` '
Sediment Deposits (B2)		_ , ,	heres along Living	Roots (C3)	_ '	n Aerial Imagery (C9)
Drift deposits (B3)		Presence of Reduc			Stunted or Stressed	Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Redu	action in Tilled Soil	s (C6)	Geomorphic Positio	n (D2)
Iron Deposits (B5)		Thin Muck Surface	e (C7)		Shallow Aquitard (,
Inundation Visible on Aerial Imager		Other (Explain in	Remarks)		Microtopographic R	
Sparsely Vegetated Concave Surface	(B8)				✓ FAC-neutral Test (D	05)
Field Observations:						
Surface Water Present? Yes •	No 🔾	Depth (inches):	1			
Water Table Present? Yes	No 💿	Depth (inches):			V	es No
Saturation Present? (includes capillary fringe) Yes	No 💿	Depth (inches):	-	Wetland Hydro	ology Present? Yo	es © No U
Describe Recorded Data (stream gau	ige, monito	ring well, aerial photo	s, previous insp	ections), if availab	ole:	
Remarks:						

(Diet size)	Absolute		ndicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species: S	tatus	Number of Dominant Species
1				That are OBL, FACW, or FAC:3 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:3 (B)
4	0			
5	0			Percent of dominant Species That Are OBL FACW or FAC: 100.0% (A/B)
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
(5)	0 =	= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 60 x 1 = 60
1	0			FACW species 25 x 2 = 50
2	0			FAC species $15 \times 3 = 45$
3	0			
4	•			FACU species $0 \times 4 = 0$
5	0			UPL species $0 \times 5 = 0$
6	0			Column Totals: <u>100</u> (A) <u>155</u> (B)
7				Prevalence Index = B/A = 1.550
		= Total Cover		· —
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators:
1 Scirpus cyperinus	25	✓	OBL	✓ Rapid Test for Hydrophytic Vegetation
2. Phalaris arundinacea	20		FACW	✓ Dominance Test is > 50%
3. Typha x glauca	16		OBL	Prevalence Index is ≤3.0 ¹
4. Tunana officera			OBL	Morphological Adaptations ¹ (Provide supporting
5. Apocynum cannabinum	10		FAC	data in Remarks or on a separate sheet)
O Discount home to a vifalium			FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
7 Persicaria pensylvanica		- H	FACW	be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9		<u> </u>		Definitions of Vegetation Strata
10	0	Ш _		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(District)	100 =	= Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1		ᆜ -		Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2		<u> </u>		size, and woody plants less than 5.20 it tall.
3		<u> </u>		Woody vine - All woody vines greater than 3.28 ft in
4	0	Ш_		height.
	0 =	= Total Cover		
				Hydrophytic
				Vegetation
				1.555
Remarks: (Include photo numbers here or on a separate sh	ieet.)			

Sampling Point: w-jbl-070918-02

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-070918-02

Color (moist) 96 Color (moist) 99 Type 1 Loc2 Taxture Remarks 0-16 2.5 YR 5/1 80 7.5 YR 4/6 20 C M SITY Clay Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Natrix Hydric Soil Indicators: Historical (A1) Polyvalate Below Surface (S8) (LRR R, MEA 1498) History (A1) Thin Dark Surface (S9) (LRR R, MLRA 1498) Depleted Dark Surface (S9) (LRR R, L) Loamy Mucky Mineral (F1) LRR R, L) Depleted Below Dark Surface (A1) Thick Dark Surface (A1) Depleted Dark Surface (A1) Sandy Radox (Mineral (S1) Sandy Madox Mineral (S1) Sandy Radox (S9) Sandy Radox (S9) Sandy Radox (S9) Seppend Matrix (S4) Depleted Dark Surface (S9) (LRR R, LR, L) Depleted Dark Surface (S9) (LRR R, LR, L) Sandy Radox (S9) Seppend Matrix (S9) Depleted Dark Surface (S9) Phydrophysics Below Surface (S9) Seppend Matrix (S9) Depleted Dark Surface (S9) Phydrophysics Below Surface (S9) Phydrophysics Below Surface (S9) Phydrophysics Below Surface (S9) (LRR R, LR, L) Depleted Dark Surface (S9) (LRR R, LR, L) Depleted Dark Surface (S1) Sandy Radox (S9) Seppend Matrix (S9) Depleted Dark Surface (S9) (LRR R, LR, L) Depleted Dark Surface (S9) (LRR R, LR, LR, LR, LR, LR, LR, LR, LR, L	Depth _		Matrix				dox Featu						
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Jocation:** PL=Pore Lining. M=Matrix **Indicators for Problematic Hydric Soils:** Indicators for Problematic Hydric Soils:** Indicators for Problematic Hydric Soils:** Indicators for Problematic Hydric Soils:** 2 cm Muck (AI0) (LRR K, L, MIRA 149B)									Loc2			Ren	narks
ydric Soil Indicators: Histosol (A1)	0-16	2.5YR	5/1	80	7.5YR	4/6	_ 20	C		Silty Clay			
ydric Soil Indicators: Histosol (A1)													
ydric Soil Indicators: Histosol (A1)													
ydric Soil Indicators: Histosol (A1)					-					-			
ydric Soil Indicators: Histosol (A1)								_					
Indicators for Problematic Hydric Soils: Histosol (A1)													
Indicators for Problematic Hydric Soils: Histosol (A1)													
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (A12) Redox Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Sandy Muck Mineral (S1) Peleted Dark Surface (F8) Peleted Dark Surface (S9) (LRR K, L, R) Peleted Matrix (S4) Redox Depressions (F8) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Dark Surface (TF12) Other (Explain in Remarks) Polytophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.													
Histosol (A1)													
Histosol (A1)										-			
Histosol (A1)													
Histosol (A1)													
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L, R) Depleted Below Dark Surface (A11) Polyvalue Below Surface (F6) Thin Dark Surface (A12) Redox Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Sandy Muck Mineral (S1) Pepleted Dark Surface (F7) Redox Depressions (F8) Red Parent Material (F2) Stripped Matrix (S6) Polyvalue Below Surface (TF12) Other (Explain in Remarks) Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.													
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Stratified Layers (A5) Loamy Mucky Mineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L, R) Depleted Below Dark Surface (A11) Polyvalue Below Surface (F6) Thin Dark Surface (A12) Redox Dark Surface (F6) Tron-Manganese Masses (F12) (LRR K, L, R) Sandy Muck Mineral (S1) Pepleted Dark Surface (F7) Redox Depressions (F8) Red Parent Material (F2) Stripped Matrix (S6) Polyvalue Below Surface (TF12) Other (Explain in Remarks) Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.													
Histosol (A1)	oe: C=Concer	ntration. D	=Depletio	n. RM=Red	uced Matrix,	CS=Covere	ed or Coate	ed Sand Gra	nins ² Locat	tion: PL=Pore Lining.	M=Mat	rix	
Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Redox (S5) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) MLRA 149B) Folyvalue Below Surface (S9) (LRR R, MLRA 149B) Dark Surface (S7) (LRR K, L, M) Dark Surface (S7) (LRR K, L, M) Dark Surface (S9) (LRR K, L) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Depleted Below Dark Surface (S9) (LRR K, L) Redox Dark Surface (F6) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Thin Dark Surface (S9) (LRR K, L, M) Dark Surface (S9) (LRR K, L, M) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Dark Surface (S9) (LRR K, L) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L, M) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Dother (Explain in Remarks) Thin Dark Surface (S9) (LRR K, L, M) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L					<u> </u>								ic Soils : 3
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, L) Dark Surface (S9) (LRR K, L, M) Depleted Below Dark Surface (A12) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Depleted Dark Surface (S7) (LRR R, MLRA 149B) Mesic Spodic (TF12) Other (Explain in Remarks) My Redox Depresent? We No Other (Explain in Remarks) My Redox Depresent? My Redox Depresent Sex Constitution Sulface (TF12) My Redox Depresent Sex Constitution Sulface (TF12					Polv	value Belo	w Surface	(S8) (LRR I	۲,				
Black Histic (A3)								. , .	,				
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No													
Stratified Layers (A5)					Loar	ny Mucky I	Mineral (F1	L) LRR K, L)					
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Depleted Matrix (S3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149 Mesic Spodic (TA6) (MLRA 144A, 145, 149B Mesic S						-)					
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Type: Depth (inches): Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149 Mesic Spodic (TA6) (MLRA 144A, 145, 149B Mesic Spodic (TA6) (MLRA 144A, 145, 149B Depth (inches): Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B Mesic Spodic (TA6) (MLRA 144B, 145B, 149B) Other (Explain in Remarks) Hydric Soil Present? Yes No			Surface (A	11)	✓ Dep	eted Matri	ix (F3)						
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No													
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Type: Depth (inches): Hydric Soil Present? Yes • No					Depl	eted Dark	Surface (F	7)					
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Idicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Itrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No					✓ Redo	ox Depress	sions (F8)						
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No			•										, 145, 1490)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Itrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No													2)
Addicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No			R R, MLRA	(149B)									<u>~)</u>
Type: Hydric Soil Present? Yes • No O	adicators of h	vdrophytic	vegetatio	n and wetla	and hydrology	must he r	nrecent un	alace dictur	and or proble		3111 III IX	ciliaiks)	
Type:				iii ana wede	ina nyarology	must be p	present, un	iicss distair	oca or proble	induc.			
Depth (inches): Hydric Soil Present? Yes No		er (if obs	erved):										
Depart (mailes).		`								Hydric Soil Prese	ent?	Yes 💿	No O
marks:	Depth (inches	es):								Tryunc Son Trose		163 🔾	110 😊
	narks:												

Project/Site: Brownhelm-Beaver-Black River	City/	/County:	Lorain		Sampling	Date: 09-Jul-18
Applicant/Owner: FirstEnergy			State: O	- Sampling	Point:	w-jbl-070918-03
Investigator(s): JBL,AEH	S	Section, To	wnship, Range:	S. T.	7N	R. 18W
Landform (hillslope, terrace, etc.): Lowland	Loca	l relief (co	oncave, convex,	none): concave		Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR M		1757	Lon	-		Datum: NAD 83
	Lat 41.4	11/5/			ientien. I	_
Soil Map Unit Name: FuA				NWI classif	ication: p	N/A
Are climatic/hydrologic conditions on the site ty	pical for this time of year?	Ye	s No	(If no, explain in	Remarks.	•
Are Vegetation , Soil , or Hydrolo	ogy significantly dis	turbed?	Are "Norma	l Circumstances"	present?	Yes ● No ○
Are Vegetation , Soil , or Hydrole	ogy 🗌 naturally proble	ematic?	(If needed,	explain any answ	ers in Rem	arks.)
Summary of Findings - Attach site	e map showing sam	pling p	oint locatio	ns, transect	s, impo	rtant features, et
Hydrophytic Vegetation Present? Yes O	No O					
Hydric Soil Present? Yes ●	No O		Sampled Area a Wetland?	Yes No)	
Wetland Hydrology Present? Yes	No O					
Remarks: (Explain alternative procedures here	e or in a separate report.)	<u> </u>				
Hydrology						
Hydrology Wetland Hydrology Indicators:						
Primary Indicators (minimum of one required;	check all that annly)			Secondary Indicate		m of 2 reauired)
Surface Water (A1)	Water-Stained Leaves (B	20)		Surface Soil C Drainage Patt		
✓ High Water Table (A2)	Aquatic Fauna (B13)	J J)		Moss Trim Lin	, ,	
Saturation (A3)	Marl Deposits (B15)			☐ Dry Season W	. ,	(C2)
Water Marks (B1)	Hydrogen Sulfide Odor ((C1)		Crayfish Burro	ws (C8)	
Sediment Deposits (B2)	Oxidized Rhizospheres a	long Living	Roots (C3)	Saturation Vis	ible on Aeria	al Imagery (C9)
Drift deposits (B3)	Presence of Reduced Iro	n (C4)		Stunted or St	ressed Plant	s (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction ir	n Tilled Soil	s (C6)	✓ Geomorphic P	. ,)
Iron Deposits (B5)	☐ Thin Muck Surface (C7)			Shallow Aquit	` '	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remark	ks)		✓ Microtopograp✓ FAC-neutral T	-	<i>)</i> 4)
Spaisely vegetated Concave Surface (bb)				▼ FAC-Heutral I	est (D5)	
Field Observations:						
Surface Water Present? Yes No No	Depth (inches):					
Water Table Present? Yes • No •	Depth (inches):	8	Wetland Use	rology Present?	Voc 🜘	No O
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	10	wetiand nyd	rology Present?		NO C
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos, pre	vious insp	ections), if availa	able:		
Remarks:						

(-1	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1(A)
2				
3				Total Number of Dominant Species Across All Strata: 1 (B)
4				Species Across Air Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				Boundary Folders world by the
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cove	r	Total % Cover of: Multiply by:
1	0			OBL species <u>8</u> x 1 = <u>8</u>
				FACW species 93 x 2 = 186
2				FAC species $0 \times 3 = 0$
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 101 (A) 194 (B)
6	0			Column locals: 101 (A) 194 (5)
7	0			Prevalence Index = $B/A = \underline{1.921}$
(Plot size:	0	= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				✓ Rapid Test for Hydrophytic Vegetation
1. Phragmites australis	90	✓	FACW	✓ Dominance Test is > 50%
2. Carex lurida	4		OBL	
3. Juncus effusus	4		OBL	✓ Prevalence Index is ≤3.0 ¹
4. Carex annectens	3		FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5	-			Problematic Hydrophytic Vegetation ¹ (Explain)
6				Problematic nytrophytic vegetation (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
		= Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove	r	
				Hydrophytic
				Vegetation No. 0
				Present? Yes V No C
Remarks: (Include photo numbers here or on a separate she	eet.)			

Sampling Point: w-jbl-070918-03

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-070918-03

Glore (moist) 96	Depth Matrix				dox Featu						
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains **Location:** PL=Pore Lining. M=Matrix Varie Soil Indicators:									Remarks		
ydric Soil Indicators: Histosol (A1)	0-16 10YR	3/1 90	10YR	4/6	10	С	М	Clay Loam			
ydric Soil Indicators: Histosol (A1)											
Indicators for Problematic Hydric Soils: Histosol (A1)				_	-			•			
Histosol (A1)					-			-			
Histosol (A1)											
Histosol (A1)				-	-						
Histosol (A1)											
Histosol (A1)											
Histosol (At) Polyvalue Below Surface (S8) (LRR R, HIKRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Hydrogen Sulfide (A4) Loarny Mucky Mineral (F1) LRR K, L) Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loarny Mucky Mineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Muck Mineral (S1) Peleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Redox Depressions (F8) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Users (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Trictive Layer* (if observed):** Type: Depth (inches): Depleted Solven Surface (S9) (LRR R, MLRA 149B) Solven Present? Yes No No Constitution (S6) Number (S6											
Histosol (A1)			_								
Histosol (A1)											
Histosol (At) Polyvalue Below Surface (S8) (LRR R, HIKRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Hydrogen Sulfide (A4) Loarny Mucky Mineral (F1) LRR K, L) Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Loarny Mucky Mineral (F1) LRR K, L) Dark Surface (S7) (LRR K, L, M) Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Sandy Muck Mineral (S1) Peleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Red Parent Material (F21) Redox Depressions (F8) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Stripped Matrix (S6) Users (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Trictive Layer* (if observed):** Type: Depth (inches): Depleted Solven Surface (S9) (LRR R, MLRA 149B) Solven Present? Yes No No Constitution (S6) Number (S6											
Histosol (A1)											
Histosol (A1)											
Histosol (A1)	e: C=Concentration	. D=Depletion. RM=	Reduced Matrix,	CS=Covere	ed or Coate	d Sand Gra	ins ² Locat	tion: PL=Pore Lining. M=1	Matrix		
Histosol (A1) Histosol (A2) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Redox (S5) Stripped Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, L) Depleted Below Dark Surface (A12) Stripped Matrix (S6) Depleted Dark Surface (F7) Stripped Matrix (S6) Dark Surface (S7) (LRR R, L) Depleted Dark Surface (F7)	dric Soil Indicator	's:						Indicators for Prof	nlematic Hydric Soils : 3		
Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thin Dark Surface (F6) Depleted Below Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 1498) Mesic Spodic (TA6) (MLRA 144A, 145, 1498) Black Histic (A3) Thin Dark Surface (S9) (LRR K, L, R) Dark Surface (S7) (LRR K, L, M) Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Piedmont Floodplain Soils (F19) (MLRA 1498) Mesic Spodic (TA6) (MLRA 144A, 145, 1498) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Depth (inches): Type: Depth (inches): Hydric Soil Present? Yes No	Histosol (A1)		Poly	value Belov	w Surface ((S8) (LRR F	ξ,				
Black Histic (A3)		<u>?</u>)									
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (F3) Depleted Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Pedmont Floodplain Soils (F19) (MLRA 1498) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Type: Depth (inches): Hydric Soil Present? Yes No											
Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depleted Below Dark Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Tron-Manganese Masses (F12) (LRR K, L, R) Priedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Type: Depth (inches): Hydric Soil Present? Yes No		44)	Loai	my Mucky N	Mineral (F1)) LRR K, L)					
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox Depressions (F8) Redox Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Circitive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Stratified Layers (A	5)									
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Depth (inches): Type: Depth (inches): Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Wery Shallow Dark Surface (TF12) Other (Explain in Remarks) Hydric Soil Present? Yes No	Depleted Below Da	rk Surface (A11)									
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Hydric Soil Present? Yes No	Thick Dark Surface	(A12)									
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy Muck Mineral	l (S1)	_			7)					
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy Gleyed Matrix	x (S4)	✓ Red	ox Depress	sions (F8)						
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy Redox (S5)										
Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Stripped Matrix (S6))									
Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Itrictive Layer (if observed): Type: Depth (inches): Type: Depth (inches):	Dark Surface (S7) (LRR R, MLRA 149B)									
trictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes • No •	ndicators of hydrophy	vtic vegetation and w	etland hydrology	/ must be r	oresent. un	less disturt	ned or proble		ricinario		
Type:					, , , , , , , , , , , , , , , , , , , ,						
Depth (inches): Hydric Soil Present? Yes No		observed):									
Depth (mailes).	··							Hydric Soil Present?	Yes No		
narks:											
	narks:										

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain Sampling Date: 09-Jul-18
Applicant/Owner: FirstEnergy	State: OH Sampling Point: w-jbl-070918-04
Investigator(s): JBL,AEH	Section, Township, Range: S. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	41.416618 Long.: 41.416618 Datum: NAD 83
Soil Map Unit Name: FuA	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
Are Vegetation \square , Soil \square , or Hydrology \square significant	tly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes ● No ○	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	William & Wildiam .
Hydrology	
Wetland Hydrology Indicators:	Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) Water-Stained Le	Surface Soil Cracks (B6) Drainage Patterns (B10)
☐ Surface Water (A1) ☐ Water-Stained Le ✓ High Water Table (A2) ☐ Aquatic Fauna (B	
✓ Saturation (A3)	·
☐ Water Marks (B1) ☐ Hydrogen Sulfide	Odor (C1) Crayfish Burrows (C8)
	heres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	` '
	uction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surfaction ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	
Sparsely Vegetated Concave Surface (B8) Other (Explain in	Remarks) ✓ FAC-neutral Test (D5)
Field Observations:	
Surface Water Present? Yes O No Depth (inches):	
Water Table Present? Yes • No O Depth (inches):	10
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photographics) Remarks:	tos, previous inspections), if available:

(-1	Absolute		Indicator	Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: 2 (A)
2	0			
3				Total Number of Dominant Species Across All Strata: 3 (B)
4				Species Across Air Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC: 66.7% (A/B)
6				Boundary Valence delta de
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cove	r	Total % Cover of: Multiply by:
	0			OBL species x 1 =
1				FACW species <u>35</u> x 2 = <u>70</u>
2				FAC species $0 \times 3 = 0$
3				FACU species $60 \times 4 = 240$
4				UPL species $0 \times 5 = 0$
5	0			· ·
6	0			Column Totals: <u>145</u> (A) <u>360</u> (B)
7	0			Prevalence Index = $B/A = 2.483$
	0	= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Echinochioa crusgalli	60	✓	FACU	
2. Carex lurida	30	✓	OBL	
3. Poa palustris	30	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
∆ Scirpus atrovirens	10		OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5 Juncus effusus	10		OBL	I · · · · ·
0. 01			FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
			FACVV	¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Definitions of Vegetation Strata
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sanling/obruh Woody planta loss than 2 in DPH and
		= Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
				g. satisf a fair 3:20 11 (111) taim
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove	r	
			-	
				Hydrophytic
				Vegetation No. 0
				Present? Yes • No ·
Remarks: (Include photo numbers here or on a separate sho	eet.)			

Sampling Point: w-jbl-20180709-04

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180709-04

	ription: (De	scribe to	the depth	needed to d	locumen	t the indi	cator or o	onfirm the	absence of indicators.)		
Depth (inches)	Color (Matrix	0/-	Color (dox Featu	res Type ¹	l a a?	- Touture	Remarks	
0-11	10YR	(moist)	 90	Color (% 10	_ <u>rype</u> -	Loc ²	Texture Silby Clay	Kemarks	
		4/1			6/6			-	Silty Clay		
11-18	10YR	5/1	75 	10YR	6/6	_ 25	_ <u>C</u>	M	Silty Clay		
										·-	
						_					
		-									
										-,	
	-										
		-		-	-	_	_	-		·	
1											
		=Depletio	n. KM=Redi	uced Matrix, C	S=Covere	ed or Coate	ed Sand Gr	ains ² Loca	ition: PL=Pore Lining. M=M		
Hydric Soil								_	Indicators for Prob	lematic Hydric Soils: 3	
Histosol (⁄alue Belo \ 149B)	w Surface	(S8) (LRR	R,	2 cm Muck (A10)	(LRR K, L, MLRA 149B)	
	pedon (A2)				,	ace (S9) (IRR R MI	RA 149R)	Coast Prairie Red	ox (A16) (LRR K, L, R)	
Black His						Mineral (F1			5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)					Matrix (F2)		,	Dark Surface (S7)) (LRR K, L, M)	
	Layers (A5)	Curfo oo (A	11)		eted Matri		,		Polyvalue Below S	Surface (S8) (LRR K, L)	
	Below Dark S k Surface (Al		11)			ırface (F6)			Thin Dark Surface	e (S9) (LRR K, L)	
						Surface (F	7)			Masses (F12) (LRR K, L, R)	
	ıck Mineral (S eyed Matrix (S			_		sions (F8)	,			ain Soils (F19) (MLRA 149B)	
Sandy Re		3 4)								6) (MLRA 144A, 145, 149B)	
	Matrix (S6)								Red Parent Mater		
	ace (S7) (LRI	R R MIRA	149R)						Very Shallow Dar		
									Other (Explain in	Remarks)	
³ Indicators o	f hydrophytic	vegetatio	n and wetla	nd hydrology	must be p	present, un	iless distur	bed or probl	ematic.		
Restrictive L	ayer (if obs	served):									
Туре:											
Depth (inc	thes):								Hydric Soil Present?	Yes No	
Remarks:											

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Samplin	g Date: 09-Jul-18
Applicant/Owner: FirstEnergy			State: OF	Sampling Point:	w-jbl-070918-05
Investigator(s): JBL,AEH		Section, To	wnship, Range:	s. t. 7N	R. 18W
Landform (hillslope, terrace, etc.): Hillside		_	ncave, convex, r		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.413613	Long		Datum: NAD 83
Soil Map Unit Name: AIA				NWI classification:	N/A
Are climatic/hydrologic conditions on the sit	e typical for this time of v	rear? Yes	s No	(If no, explain in Remarks)	s.)
Are Vegetation, Soil, or Hyd		ly disturbed?		Circumstances" present?	Yes No
Are Vegetation , Soil , or Hyd		problematic?		explain any answers in Rei	marks)
Summary of Findings - Attach s			. ,	-	•
Hydrophytic Vegetation Present? Yes					•
Hydric Soil Present? Yes	No 🔾		Sampled Area a Wetland?	Yes No	
Wetland Hydrology Present? Yes	No 🔾	within	i a wedand?	100 0 110 0	
Remarks: (Explain alternative procedures		ort.)			
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one 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)	d; check all that apply) Water-Stained Lea Aquatic Fauna (B1: Marl Deposits (B15: Hydrogen Sulfide C Oxidized Rhizospho Presence of Reduce Recent Iron Reduce Thin Muck Surface Other (Explain in Reduce)	3) 5) Codor (C1) eres along Living ed Iron (C4) tion in Tilled Soils (C7)		Secondary Indicators (minimum Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table Crayfish Burrows (C8) Saturation Visible on Aer Stunted or Stressed Plan Geomorphic Position (D2 Shallow Aquitard (D3) Microtopographic Relief	(C2) rial Imagery (C9) tts (D1) 2)
Sparsely Vegetated Concave Surface (B8)	_ ,,	,		FAC-neutral Test (D5)	
Field Observations: Surface Water Present? Yes No	<u> </u>				
-	. , ,	1			
Water Table Present? Yes No Saturation Present?	= -pair ().		Wetland Hydi	ology Present? Yes	No O
(includes capillary fringe) Yes No	Depth (inches):		, , , , , , , , , , , , , , , , , , ,		
Describe Recorded Data (stream gauge, mor	itoring well, aerial photos	s, previous insp	ections), if availa	ble:	
Remarks:					
standing water in north section of wetland					

(2)	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1(A)
2	0			
3				Total Number of Dominant Species Across All Strata: 1 (B)
4				Species Across All Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC:100.0% (A/B)
6				Boundary Today well-back
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)		= Total Cov	er	Total % Cover of: Multiply by:
	0			OBL species <u>5</u> x 1 = <u>5</u>
1				FACW species 100 x 2 = 200
2				FAC species $0 \times 3 = 0$
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 105 (A) 205 (B)
6	0			Column locals: 103 (A) 203
7	0			Prevalence Index = $B/A = \underline{1.952}$
Herb Stratum (Plot size:)	0	= Total Cov	er	Hydrophytic Vegetation Indicators:
				✓ Rapid Test for Hydrophytic Vegetation
1 Phragmites australis	90	✓	FACW	✓ Dominance Test is > 50%
2. Poa palustris	10		FACW	✓ Prevalence Index is ≤3.0 ¹
3. Juncus effusus	5		OBL	
4	0			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				ŭ
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
	105	= Total Cov	er	greater than 3.28 ft (1m) tall
	0			
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0			oize, and woody planto loss than o.zo it tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cov	er	
				Hydrophytic
				Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate she	eet.)			

Sampling Point: w-jbl20180709-05

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl20180709-05

Profile Descri	iption: (De	scribe to	the depth	needed to	documen	t the indi	cator or c	onfirm the	absence of indicators.)
Depth (inches)		Matrix				dox Featu			
(inches)		(moist)	%		moist)	%	Type 1		Texture Remarks
0-10	10YR	4/1	95	10YR	4/6	_ 5	C		Silty Clay Loam
	-	-		-	-			-	
	-	-		-					
		-		-					
¹ Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix. (CS=Covere	ed or Coate	ed Sand Gr	ains ² Locat	tion: PL=Pore Lining. M=Matrix
Hydric Soil I									
Histosol (/				Poly	value Relo	w Surface ((58) (100	2	Indicators for Problematic Hydric Soils: 3
Histic Epip					A 149B)	w Surface ((30) (LIXIX	Υ,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histi				Thin	Dark Surf	ace (S9) (I	LRR R, MLI	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
	Sulfide (A4)			Loan	ny Mucky I	Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loan	ny Gleyed	Matrix (F2))		Dark Surface (S7) (LRR K, L, M)
	Below Dark	Surface (A	11)	✓ Depl	eted Matri	ix (F3)			Polyvalue Below Surface (S8) (LRR K, L)
	Surface (A		11)	Redo	x Dark Su	ırface (F6)			☐ Thin Dark Surface (S9) (LRR K, L)
	ck Mineral (S			☐ Depl	eted Dark	Surface (F	7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)
	yed Matrix (Redo	x Depress	sions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Rec		54)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped M									Red Parent Material (F21)
I —	ace (S7) (LR	D D MIDA	140R)						
									Other (Explain in Remarks)
³ Indicators of	hydrophytic	vegetatio	n and wetla	ind hydrology	must be p	present, un	less distur	ped or proble	ematic.
Restrictive La	ayer (if obs	served):							
Type: <u>rin</u>	rap								
Depth (inch	nes): <u>10</u>								Hydric Soil Present? Yes ● No ○
Remarks:									
remario									

A	eaver-Black Ri	iver		City/County:	Lorain	Samplin	ng Date: 09-Jul-18
Applicant/Owner: FirstEner	gy				State: OH	Sampling Point:	w-jbl-70918-06
Investigator(s): JBL,AEH				Section, To	ownship, Range: S		R. 19W
Landform (hillslope, terrac	e, etc.): S	wale		_	oncave, convex, no		Slope: 0.0 % / 0.0
Subregion (LRR or MLRA):	LRR R		Lat.:	41.410007	Long		Datum: NAD 83
Soil Map Unit Name: AIA				11.110007			N/A
					s • No O	_	·
Are climatic/hydrologic coi	nditions on	the site ty	pical for this time of	year? Ye	s • No ·	(If no, explain in Remark	-
Are Vegetation, So	oil . ,	or Hydrol	ogy significant	tly disturbed?	Are "Normal	Circumstances" present?	Yes No
Are Vegetation \Box , So	oil 🗌 ,	or Hydro	ogy naturally p	problematic?	(If needed, e	xplain any answers in Re	marks.)
Summary of Findin	gs - Atta	ach site	e map showing	sampling p	oint location	s, transects, impo	ortant features, et
Hydrophytic Vegetation P		Yes 💿	No O				
Hydric Soil Present?		Yes 💿	No O		Sampled Area n a Wetland?	Yes No	
Wetland Hydrology Preser	nt?	Yes 💿	No O				
Hydrology Wetland Hydrology Indica	ators:					Secondary Indicators (minim	num of 2 required)
Primary Indicators (minim		required;	check all that apply)		-	Surface Soil Cracks (B6)	
✓ Surface Water (A1)			Water-Stained Lea	aves (B9)		Drainage Patterns (B10)	
✓ High Water Table (A2)			Aquatic Fauna (B1	13)		Moss Trim Lines (B16)	
Saturation (A3)			Marl Deposits (B1	5)		Dry Season Water Table	e (C2)
Water Marks (B1)			Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)	
Sediment Deposits (B2)			Oxidized Rhizosph		Roots (C3)	Saturation Visible on Ae	
Drift deposits (B3)			Presence of Reduc	()		Stunted or Stressed Plan	` '
☐ Algal Mat or Crust (B4)☐ Iron Deposits (B5)			Recent Iron Reduc		s (C6)	Geomorphic Position (D	2)
Inundation Visible on Ae	rial Imagery ((B7)	Thin Muck Surface	,		Shallow Aquitard (D3)Microtopographic Relief	(D4)
Sparsely Vegetated Conc			Other (Explain in I	Remarks)		FAC-neutral Test (D5)	(04)
_ , _ , _ , _ , _ , _ , _ , _ , _ , _ ,							
Field Observations:							
. , ,	Yes	No O	Depth (inches):	1			
Field Observations:	Yes Yes	No O	Depth (inches): Depth (inches):				A No ()
Field Observations: Surface Water Present?		_		0	Wetland Hydro	ology Present? Yes	● No ○

(-1	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: 2 (A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Species Across Air Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				B
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cove	r	Total % Cover of: Multiply by:
1	0			OBL species <u>55</u> x 1 = <u>55</u>
2.				FACW species <u>15</u> x 2 = <u>30</u>
				FAC species <u>30</u> x 3 = <u>90</u>
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				'
6	0			Column Totals:100_ (A)175_ (B)
7	0			Prevalence Index = $B/A = 1.750$
Herb Stratum (Plot size:)	0	= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Fiot Size)				Rapid Test for Hydrophytic Vegetation
1. Juncus tenuis	30	✓	FAC	✓ Dominance Test is > 50%
2. Juncus effusus	40	✓	OBL	
3. Scirpus atrovirens	_ 5		OBL	✓ Prevalence Index is ≤3.0 ¹
4 Phalaris arundinacea	15		FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex vulpinoidea	10		OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6				Problematic hydrophytic vegetation (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Deminions of regetation strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(-1)	100	= Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes No
				Present? Yes No U
Remarks: (Include photo numbers here or on a separate she	eet.)			

Sampling Point: w-jbl-20180709-06

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180709-06

Depth Matrix Redox Features											
(inches)	Color (ı		%	Color (%	Type 1		Texture	Rei	marks
0-19	10YR	5/1	95	10YR	5/6	_ 5	C		Silty Clay Loam		
									-		
					-						
									-		
e: C=Cond	entration. D=	=Depletion	ı. RM=Redu	iced Matrix, C	S=Covere	d or Coate	d Sand Gra	ins ² Locat	ion: PL=Pore Lining. M=	=Matrix	
dric Soil I	ndicators:								Indicators for Pro	blematic Hydi	ric Soils: 3
Histosol (A1)					w Surface ((S8) (LRR F	ι,		0) (LRR K, L, ML	
Histic Epip	pedon (A2)				\ 149B)	/e-: :				edox (A16) (LRR	
Black Hist	ic (A3)						LRR R, MLF			at or Peat (S3) (
Hydrogen	Sulfide (A4)			_) LRR K, L)		_	67) (LRR K, L, M	
Stratified	Layers (A5)					Matrix (F2))		_	v Surface (S8) (I	
Depleted I	Below Dark S	urface (A1	.1)	✓ Deple						ace (S9) (LRR K	
Thick Dark	Surface (A1	2)				rface (F6)				e Masses (F12) (
Sandy Mu	ck Mineral (S:	1)		_		Surface (F	7)			tplain Soils (F19)	
	yed Matrix (S			✓ Redo	x Depress	ions (F8)				гріант 30115 (F19 ₎ ГАб) (MLRA 144 <i>)</i>	
Sandy Red									Red Parent Mai		4, 143, 1490)
Stripped N											2)
1	ace (S7) (LRR	R, MLRA	149B)							ark Surface (TF1	.2)
			-						Other (Explain	in Remarks)	
	hydrophytic		and wettar	na riyarology	must be p	resent, un	iess disturt	ed or proble	ematic.		
strictive La	ayer (if obse	erved):									
Type:									Under Call Day	. v (a)	
Depth (incl	nes):								Hydric Soil Present	? Yes •	No O
marks:											
marks:											
marks:											
narks:											
narks:											
narks:											
marks:											
marks:											
narks:											
marks:											
marks:											
marks:											
marks:											
marks:											
marks:											
emarks:											
emarks:											
marks:											
marks:											
marks:											

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain Sampling Date: 09-Jul-18
Applicant/Owner: FirstEnergy	State: OH Sampling Point: w-jbl-070918-07
Investigator(s): JBL,AEH	Section, Township, Range: S. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, none): concave Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	41.408519 Long.: -82.267709 Datum: NAD 83
Soil Map Unit Name: AIA	NWI classification: N/A
•	<u> </u>
Are climatic/hydrologic conditions on the site typical for this time of y	, and a promise of the control of th
Are Vegetation , Soil , or Hydrology significant	tly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation $\ \square$, Soil $\ \square$, or Hydrology $\ \square$ naturally $\ \square$	problematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes ● No ○	Is the Sampled Area within a Wetland? Yes No
Wetland Hydrology Present? Yes No	
Remarks: (Explain alternative procedures here or in a separate repo	ort.)
Hydrology	
Wetland Hydrology Indicators:	_Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)	Surface Soil Cracks (B6)
✓ Surface Water (A1) Water-Stained Lea	
High Water Table (A2)	
Saturation (A3) Marl Deposits (B1	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1) Crayfish Burrows (C8)
	heres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Redu	` '
	uction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	
Inundation visible on Aerial Imagery (B7) Other (Explain in Sparsely Vegetated Concave Surface (B8)	Remarks) FAC-neutral Test (D5)
Sparsely regulated contents surface (50)	E TAC Head at Test (DD)
Field Observations:	
Surface Water Present? Yes No Depth (inches):	1
Water Table Present? Yes No Depth (inches):	0 Wetland Hydrology Present? Yes ● No ○
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if available:
Remarks:	
water in middle of wetland	

vegeration - ose scientific names of pr	aiit			Sampling Point: w-jbl-20180709-07
(District	Absolute	Dominant Species 2	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 2 (B)
4				Develop of development Charles
5				Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	: Total Cove	r	
1	0			FACW species $30 \times 2 = 60$
2	0			FAC species $35 \times 3 = 105$
3	0			
4	_			
5	0			N S =
6	0			Column Totals: 105 (A) 205 (B)
7	0			Prevalence Index = B/A = 1.952
(Plot size:	0 =	Total Cove	r	Hydrophytic Vegetation Indicators:
_Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1 Juncus tenuis	35	✓	FAC	✓ Dominance Test is > 50%
2. Juncus effusus	25	✓	OBL	✓ Prevalence Index is ≤3.0 ¹
3. Carex vulpinoidea	15		OBL	Morphological Adaptations ¹ (Provide supporting
4. Carex scoparia			FACW	data in Remarks or on a separate sheet)
5. Phalaris arundinacea	10		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(District	105 =	Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				Size, and woody plants less than 5.20 it tail.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
		: Total Cove	r	
				Hydrophytic
				Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate s	heet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180709-07

Profile Descri	iption: (De	scribe to	the depth	needed to	documen	t the indi	cator or c	onfirm the	absence of indicators.)
Depth		Matrix				dox Featu	ires		
(inches)		(moist)	%		moist)	%	Type ¹		Texture Remarks
0-19	10YR	5/1	75	10YR	5/6	_ 25	C		Silty Clay Loam
	-	-		-	-				· · · · · · · · · · · · · · · · · · ·
	-	-							
		-							
									· ·
									· · · · · · · · · · · · · · · · · · ·
									·
¹ Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix. (CS=Covere	ed or Coate	ed Sand Gr	ains ² Locat	tion: PL=Pore Lining. M=Matrix
Hydric Soil I									
Histosol (/				Poly	مامع مبيادي	w Surface ((SR) (LDD	D	Indicators for Problematic Hydric Soils: 3
Histic Epip					A 149B)	w Surface ((30) (LIXIX	ν,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histi				Thin	Dark Surf	ace (S9) (I	LRR R, MLI	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
	Sulfide (A4)			Loan	ny Mucky I	Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Layers (A5)			Loan	ny Gleyed	Matrix (F2))		Dark Surface (S7) (LRR K, L, M)
	Below Dark	Surface (A	11)	✓ Depl	eted Matri	ix (F3)			Polyvalue Below Surface (S8) (LRR K, L)
	Surface (A)	Redo	x Dark Su	ırface (F6)			☐ Thin Dark Surface (S9) (LRR K, L)
	ck Mineral (S			☐ Depl	eted Dark	Surface (F	7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)
	yed Matrix (Redo	x Depress	sions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Rec		54)							Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped M									Red Parent Material (F21)
	ace (S7) (LR	D D MIDA	140R)						☐ Very Shallow Dark Surface (TF12)
									Other (Explain in Remarks)
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology	must be p	present, un	less distur	bed or proble	ematic.
Restrictive La	ayer (if obs	served):							
Туре:									
Depth (inch	nes):								Hydric Soil Present? Yes No
Remarks:									
remarior									

Project/Site: Brownhelm-Beaver-Black River	City/County:	Lorain	Sa	mpling Date: 09-Jul-18
Applicant/Owner: FirstEnergy		State: OH	Sampling Poi	nt: w-jbl-070918-08
Investigator(s): JBL,AEH	Section, To	ownship, Range: S	т. 6N	R. 19W
Landform (hillslope, terrace, etc.): Swale	Local relief (c	oncave, convex, no	ne): concave	Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	41.406576	Long.:	-82.267687	Datum: NAD 83
Soil Map Unit Name: FuA, Mr	11.100370		NWI classificat	
<u> </u>		- A N- O	_	
Are climatic/hydrologic conditions on the site typical for this time of y	year? Ye	s • No O (If no, explain in Re	-
Are Vegetation 🔲 , Soil 🔲 , or Hydrology 🔲 significant	tly disturbed?	Are "Normal C	ircumstances" pres	ent? Yes ● No O
Are Vegetation 🗌 , Soil 🗌 , or Hydrology 🔲 naturally į	problematic?	(If needed, ex	plain any answers i	in Remarks.)
Summary of Findings - Attach site map showing	sampling p	ooint location	s, transects, i	mportant features, et
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes ● No ○		e Sampled Area n a Wetland?	Yes No	
Wetland Hydrology Present? Yes No				
Hydrology Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 reauired)
Primary Indicators (minimum of one required; check all that apply)			✓ Surface Soil Cracks	
Surface Water (A1) Water-Stained Lea	aves (B9)		Drainage Patterns	
High Water Table (A2) Aquatic Fauna (B1	13)	[Moss Trim Lines (I	316)
Saturation (A3) Marl Deposits (B1)	5)		Dry Season Water	Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (. ,
Sediment Deposits (B2) Oxidized Rhizosph		Roots (C3)		on Aerial Imagery (C9)
Drift deposits (B3) Presence of Reduc			Stunted or Stresse	` '
☐ Algal Mat or Crust (B4) ☐ Recent Iron Reduction Deposits (B5) ☐ Thin Muck Surface		ls (C6)	✓ Geomorphic Positi	` '
Town debies Michigan Assis Liver vivo (DZ)	,	l	Shallow Aquitard (Microtopographic	
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8) Other (Explain in F	Remarks)	[FAC-neutral Test (
Sparsely regetated container surface (50)		l	▼ TAC-Heudiai Test (<i>D3)</i>
Field Observations: Surface Water Present? Yes No Depth (inches):				
Water Table Present? Yes No Depth (inches):		Wetland Hydro	logy Present?	∕es ● No ○
Saturation Present? (includes capillary fringe) Yes No Depth (inches):				
Describe Recorded Data (stream gauge, monitoring well, aerial photos	s, previous insp	ections), if availabl	e:	
Remarks:				

Tees Stratum
1.
3.
3.
4
Percent of dominant Species
6.
Prevalence Index worksheet: Total % Cover of: Multiply by:
Total % Cover of: Multiply by: Sapling/Shrub Stratum (Plot size:)
Sapling/Shrub Stratum Plot size:
1.
2.
FAC species 25 x 3 = 75
4.
4.
5. 0 □ Column Totals:110(A)240(B) 7. 0 □ Prevalence Index = B/A =2.182 Herb Stratum (Plot size:) 0 = Total Cover 1. Phragmites australis 80 ✓ FACW 2. Juncus tenuis 25 ✓ FAC 3. Eleocharis palustris 5 □ OBL 4. □ 0 □ Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) 5. □ 0 □ Problematic Hydrophytic Vegetation ¹ (Explain) 7. □ 0 □ Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Definitions of Vegetation Strata 11. □ 0 □ Definitions of Vegetation Strata 12. □ 0 □ Sapling/shrub - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Description Description
Herb Stratum (Plot size:
Herb Stratum
Rapid Test for Hydrophytic Vegetation
1. Phragmites australis 2. Juncus tenuis 3. Eleocharis palustris 4
2 Juncus tenuis 3 Eleocharis palustris 5 OBL 0 Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
3. Eleocharis palustris 4
4
5
6
7
8
9
10
11
11
Woody Vine Stratum (Plot size:) = Total Cover greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:) = Total Cover greater than 3.28 ft (1m) tall
Woody Vine Stratum (Piot Size)
1 0 Herb - All herbaceous (non-woody) plants, regardless of
2 o size, and woody plants less than 3.28 ft tall.
3 Woody vine - All woody vines greater than 3.28 ft in
4 0 height.
0 = Total Cover
Hydrophytic
Vegetation
Present? Yes No
Remarks: (Include photo numbers here or on a separate sheet.)

Sampling Point: w-jbl-20180709-08

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180709-08

Profile Descr	iption: (De	scribe to	the depth	needed to	documen	t the indi	cator or c	onfirm the	absence of indicators.)
Depth (inches)		Matrix				dox Featu	ıres		
(inches)		(moist)	%		moist)	%	Type 1		Texture Remarks
0-18	10YR	5/1	85	10YR	6/6	_ 15	C		Silty Clay
-				-	-				
						-			
	-	-			-				
¹ Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix,	CS=Covere	ed or Coate	ed Sand Gr	ains ² Locat	ation: PL=Pore Lining. M=Matrix
Hydric Soil I	ndicators:								Indicators for Problematic Hydric Soils: 3
Histosol (Poly	value Belo	w Surface	(S8) (LRR	R,	
	pedon (A2)				A 149B)		. , .	•	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Hist				Thin	Dark Surf	ace (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
	Sulfide (A4)			Loar	ny Mucky I	Mineral (F1	.) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Stratified	Layers (A5)					Matrix (F2))		Dark Surface (S7) (LRR K, L, M)
Depleted	Below Dark	Surface (A	11)	✓ Dep	eted Matri	ix (F3)			Polyvalue Below Surface (S8) (LRR K, L)
Thick Dark	k Surface (A	12)				ırface (F6)			Thin Dark Surface (S9) (LRR K, L)
Sandy Mu	ck Mineral (S	61)		Dep	eted Dark	Surface (F	7)		Iron-Manganese Masses (F12) (LRR K, L, R)
	yed Matrix (Redo	ox Depress	sions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Red		•							Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21)
Stripped N									
I —	ace (S7) (LR	R R, MLRA	149B)						Very Shallow Dark Surface (TF12)
				بعدا مناسما است			laaa diab	والمالمين بناء الماما	U Other (Explain in Remarks)
³ Indicators of	пуагорпуш	vegetatio	n and wetta	ina nyarology	must be	present, un	iless distur	bed or proble	ematic.
Restrictive La	ayer (if obs	erved):							
Туре:									Hadda Call Burnania V. G. N. C.
Depth (incl	nes):								Hydric Soil Present? Yes ● No ○
Remarks:									

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: Oh	Sampling Point: w-jbl-071018-04
Investigator(s): JBL,AEH	Section, Township, Range:	S. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex, r	
Subregion (LRR or MLRA): LRR R Lat.:	41.404906 Lon	g.: -82.267591 Datum: NAD 83
Soil Map Unit Name: Mr, RdA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	vear? Yes No	(If no, explain in Remarks.)
	,	Circumstances" present? Yes No
		explain any answers in Remarks.)
Summary of Findings - Attach site map showing		. ,
Hydrophytic Vegetation Present? Yes No		ns, transcets, important reatures, etc
V (A) N- (Is the Sampled Area	Yes ● No ○
Vac A Na O	within a Wetland?	res 😊 No 🔾
Wetland Hydrology Present? Yes NO		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	` '	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B1	•	Moss Trim Lines (B16)
✓ Saturation (A3)	•	Dry Season Water Table (C2)
I injuregen cumuc		Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Drift deposits (B3) Presence of Reduc	neres along Living Roots (C3)	Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	, ,	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	` '	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	,	FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes O No O Depth (inches):		
Water Table Present? Yes No Depth (inches):		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hyd	rology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	ble:
Remarks:		
indino.		

vederation - ose scientific fiames of p	iaiits			Sampling Point: w-jbl-20180710-04
(2)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3	0			Species Across All Strata:2 (B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6				That Are OBL, FACW, or FAC: $\underline{100.0\%}$ (A/B)
7				Prevalence Index worksheet:
		= Total Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species <u>35</u> x 1 = <u>35</u>
1				FACW species
2				FAC species $0 \times 3 = 0$
3	0			FACU species $0 \times 4 = 0$
4	0			
5	0			·
6	0			Column Totals: 90 (A) 145 (B)
7	0			Prevalence Index = B/A = 1.611
		= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				✓ Rapid Test for Hydrophytic Vegetation
1 Typha angustifolia	35	✓	OBL	✓ Dominance Test is > 50%
2. Phragmites australis	35	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
3. Carex cristatella	10		FACW	
4. Juncus torreyi			FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree Meady plants 2 in (7.0 am) as many in diameter at
1				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
2			-	a south reight (2211), regulates of meight
Z		 = Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- Total Cove	:1	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				Manda vising All woods vising a greater than 2 20 ft in
4				Woody vine - All woody vines greater than 3.28 ft in height.
т	0 =	= Total Cove		
		- Total Cove		
				Hydrophytic
				Vegetation No. No.
				Present? Yes No O
Remarks: (Include photo numbers here or on a separate s	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180710-04

Profile Descr	iption: (Describe to	the depth n	eeded to document	the indi	cator or c	onfirm the	absence of indicators.)		
Depth	Matrix			dox Featu	ires				
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type 1		Texture	Remarks	
0-18	10YR4/1	90	10YR 5/6	10	C		Silty Clay		
-									
					_				
	· · · · · · · · · · · · · · · · · · ·	n. RM=Reduc	ed Matrix, CS=Covere	d or Coate	d Sand Gra	ins ² Locat	tion: PL=Pore Lining. M=Ma	atrix	
Hydric Soil 1							Indicators for Proble	ematic Hydric Soils: 3	
Histosol (Polyvalue Belov	w Surface ((S8) (LRR F	₹,		(LRR K, L, MLRA 149B)	
	pedon (A2)		MLRA 149B) Thin Dark Surfa	200 (50) (1	IDD D MIT	0		ox (A16) (LRR K, L, R)	
Black Hist			Loamy Mucky N			-	5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)	
	Sulfide (A4)		Loamy Gleyed I				Dark Surface (S7)	(LRR K, L, M)	
	Layers (A5)		✓ Depleted Matrix		,		Polyvalue Below S	Surface (S8) (LRR K, L)	
	Below Dark Surface (A:	11)	Redox Dark Sui				Thin Dark Surface	(S9) (LRR K, L)	
	k Surface (A12)		Depleted Dark		7)		☐ Iron-Manganese M	Masses (F12) (LRR K, L, R)	
	ick Mineral (S1)		✓ Redox Depress		. ,		Piedmont Floodpla	ain Soils (F19) (MLRA 149B)	
	eyed Matrix (S4)			(. ,			Mesic Spodic (TA6	6) (MLRA 144A, 145, 149B)	
Sandy Re							Red Parent Materia		
	Matrix (S6) ace (S7) (LRR R, MLRA	1/10P)					Very Shallow Dark		
							Other (Explain in F	Remarks)	
³ Indicators of	f hydrophytic vegetatio	n and wetlan	d hydrology must be p	resent, un	less distur	ped or proble	ematic.		
Restrictive L	ayer (if observed):								
Туре:									
Depth (inc	hes):						Hydric Soil Present?	Yes No	
Remarks:							1		

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: Of	Sampling Point: w-jbl-071018-01
Investigator(s): JBL,AEH	Section, Township, Range:	s. t. 6N R. 19W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R Lat.:	41.398872 Lon	g.: -82.267912
Soil Map Unit Name: has, LcB		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	vear? Yes No	(If no, explain in Remarks.)
	,	I Circumstances" present? Yes No
	•	refreshibitines present:
	• ,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point location	ons, transects, important features, etc
Hydrophytic Vegetation Present? Yes No Yes No Yes	Is the Sampled Area	
V (A) N- (within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a separate report		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea ✓ High Water Table (A2) Aquatic Fauna (B1)	` '	Drainage Patterns (B10)
✓ High Water Table (A2) ☐ Aquatic Fauna (B1 ✓ Saturation (A3) ☐ Marl Deposits (B1	·	Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	·	Crayfish Burrows (C8)
	neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Reduc		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	ction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface	e (C7)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		✓ FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):	10	rology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	6 Wetland Hyd	rology Present? Tes S NO C
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	able:
Remarks:		

vederation - ose scientific fiames of pr	iaiits			Sampling Point: w-jbl-071018-01
/21 · · ·	Absolute	Dominant	Illaicacoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:1 (B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6	0			That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
		= Total Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species <u>10</u> x 1 = <u>10</u>
1				FACW species 92 x 2 = 184
2				FAC species $0 \times 3 = 0$
3				FACU species $0 \times 4 = 0$
4	0			
5	0			
6	0			Column Totals: <u>102</u> (A) <u>194</u> (B)
7	0			Prevalence Index = B/A = 1.902
(Diot size:	0 =	= Total Cove	er	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1 Phalaris arundinacea	90	✓	FACW	✓ Dominance Test is > 50%
2. Scirpus atrovirens	5		OBL	✓ Prevalence Index is ≤3.0 ¹
3. Lythrum salicaria	5		OBL	
4. Bidens frondosa	2		FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10		$\overline{\Box}$		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12			-	,, ,, ,,
12		= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- Total Cove	,1	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	er	
	-			
				Hydrophytic
				Vegetation Yes • No O
				Present:
				I.
Remarks: (Include photo numbers here or on a separate s	sneet.)			
monkey flower 2;				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-071018-01

	iption: (De	scribe to	the depth	needed to docu	ment the ind	icator or c	onfirm the	absence of indicators.)	<u> </u>			
Depth (in sheet)		Matrix			Redox Feat	tures						
(inches)		(moist)	<u>%</u>	Color (mois		Type ¹		<u>Texture</u>	Remarks			
0-5	10YR	5/2	90	7.5YR 4	/6 10	C	М	Sandy Clay Loam				
5-16	10YR	5/1	80	7.5YR 4	/6 20	C	М	Sandy Clay Loam				
					-							
	-											
	-						-					
	-											
Type: C=Cond	centration. D	=Depletio	n. RM=Redu	iced Matrix, CS=Co	overed or Coat	ed Sand Gra	ains ² Locat	tion: PL=Pore Lining. M=Ma	atrix			
Hydric Soil 1									ematic Hydric Soils: 3			
Histosol (Polyvalue	Below Surface	(S8) (LRR I	₹,	_				
	pedon (A2)			MLRA 149		()(,		(LRR K, L, MLRA 149B)			
Black Hist				Thin Dark	Surface (S9)	(LRR R, MLF	RA 149B)		x (A16) (LRR K, L, R)			
	Sulfide (A4))		Loamy Mu	icky Mineral (F	1) LRR K, L)		or Peat (S3) (LRR K, L, R)			
	Layers (A5)			Loamy Gle	eyed Matrix (F2	2)		Dark Surface (S7) (LRR K, L, M)				
	Below Dark	Surface (A	11)	✓ Depleted	Matrix (F3)			Polyvalue Below Surface (S8) (LRR K, L)				
	k Surface (A		•	Redox Da	rk Surface (F6))		Thin Dark Surface (S9) (LRR K, L)				
	ıck Mineral (S			Depleted	Dark Surface (I	F7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
	eyed Matrix (✓ Redox De	pressions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A 145 149R)				
Sandy Re		. ,						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
	Matrix (S6)							Red Parent Material (F21)				
	ace (S7) (LR	R R, MLRA	149B)					✓ Very Shallow Dark Surface (TF12)✓ Other (Explain in Remarks)				
				nd hydrology must	. h	المراجعة المراجعة			(enaiks)			
			iii aliu wella	na nyarology musi	. De present, u	niess distur	bed of proble	emauc.				
Restrictive L	ayer (if obs	served):										
Type:								Hydric Soil Present?	Yes No			
Depth (inc	hes):							nyuric Soil Present?	Yes W No U			
Remarks:												

Project/Site: Brownhelm-Beaver-Black River	City/County:	orain Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: OH Sampling Point: w-jbl-071018-07
Investigator(s): JBL,AEH	Section, Tow	nship, Range: S. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Hillside		cave, convex, none): rolling Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R	Lat.: 41.390814	Long.: -82.268229
Soil Map Unit Name: MtA, OtB		NWI classification: N/A
Are climatic/hydrologic conditions on the site typica	ol for this time of year? Yes	No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	significantly disturbed?	Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, explain any answers in Remarks.)
, _ ,	_	int locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No		ampled Area Wetland? Yes No
Wetland Hydrology Present? Yes No	O WICHIN &	wedald:
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; chec	ck all that apply)	Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
✓ High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
✓ Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Drift deposits (B3)	Oxidized Rhizospheres along Living Ro Presence of Reduced Iron (C4)	oots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	Recent Iron Reduction in Tilled Soils (
☐ Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	☐ Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	- , ,	✓ FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No •	Depth (inches):	
Water Table Present? Yes • No •	Depth (inches): 8	
Saturation Present? (includes capillary fringe) Yes • No •	Depth (inches): 0	Wetland Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitoring	well, aerial photos, previous inspec	tions), if available:
Remarks:		

vederation - ose scientific fiames of pie	ants			Sampling Point: w-jbl-2080710-07
(5)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:5(A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:5(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC:
6	0			That Are ODE, FACW, OF FAC.
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0 =	= Total Cove	r	Total % Cover of: Multiply by:
	0			OBL species65 x 1 =65
1				FACW species <u>45</u> x 2 = <u>90</u>
2				FAC species5 x 3 =15
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 115 (A) 170 (B)
6				
7		= Total Cove		Prevalence Index = B/A = 1.478
Herb Stratum (Plot size:)	0 =	- 10tal Cove	•	Hydrophytic Vegetation Indicators:
1 Scirpus cyperinus	25	✓	OBL	Rapid Test for Hydrophytic Vegetation
2 Phalaris arundinacea		✓	FACW	✓ Dominance Test is > 50%
3 Phragmites australis	45	<u></u>	FACW	✓ Prevalence Index is ≤3.0 ¹
4. Juncus effusus	4.5	✓	OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Typha angustifolia	15	✓	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Onoclea sensibilis	10		FACW	Problematic Hydrophytic Vegetation (Explain)
7 Carex frankii	10		OBL	¹ Indicators of hydric soil and wetland hydrology must
8 Impatiens capensis			FACW	be present, unless disturbed or problematic.
9 Apocynum cannabinum			FAC	Definitions of Vegetation Strata
10				Tree Mendy plants 2 in (7.6 am) or more in diameter at
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12				
		= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				greater than 3.20 ft (init) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	r	
				Hydrophytic
				Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	eet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-2080710-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)													
Depth		Matrix				dox Featu	ires		_				
(inches)	Color (%	Color (mo		%	Type ¹		Texture Remarks				
0-3	10YR	5/1	90	10YR	5/6	10	С	М	Sandy Clay Loam				
3-9	10YR	6/1	85	10YR	5/6	15	С	М	Sandy Clay Loam				
9-12	10YR	6/1	70	10YR	5/6	30	С	М	Sandy Clay Loam				
-						-	-		•				
									· · · · · · · · · · · · · · · · · · ·				
						-							
									·				
									· · · · · · · · · · · · · · · · · · ·				
1 Type: C-Cons	contration D	-Deplotic	n DM-Dod	Iced Matrix CC-	Covere	d or Costs	d Sand C-	nine 2l ocat	tion: PL=Pore Lining. M=Matrix				
		-pehietio	ıı. Kırı=Ked	uceu Matrix, CS=	covere	u vi Codie	u Janu Gra	mis -LOCAT					
Hydric Soil I Histosol (A				Dolardi	ıa Ralav	v Surface /	(S8) (LRR F)	Indicators for Problematic Hydric Soils: ³				
	pedon (A2)			MLRA 1		v Juilace (JO) (LRK I	٧,	2 cm Muck (A10) (LRR K, L, MLRA 149B)				
Black Histi				Thin Da	rk Surfa	ice (S9) (I	RR R, MLF	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)				
	Sulfide (A4)			Loamy N	Mucky M	lineral (F1) LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
	Layers (A5)			Loamy (Gleyed N	Matrix (F2)			Dark Surface (S7) (LRR K, L, M)				
	Below Dark S	Surface (A	11)	✓ Deplete	d Matrix	(F3)			Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L)				
	k Surface (A1		-	Redox D	ark Sur	face (F6)			☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
Sandy Mu	ck Mineral (S	1)				Surface (F	7)		☐ Iron-Manganese Masses (F12) (LKR K, L, R) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)				
Sandy Gle	yed Matrix (S	54)		✓ Redox D	Depressi	ions (F8)			☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Rec	dox (S5)								Red Parent Material (F21)				
Stripped M	Matrix (S6)								Very Shallow Dark Surface (TF12)				
Dark Surfa	ace (S7) (LRF	R R, MLRA	149B)						Other (Explain in Remarks)				
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology mu	ıst be p	resent, un	less disturl	oed or proble					
Restrictive La													
Type:	aye. (055	c. v cu j.											
Depth (inch	hes):								Hydric Soil Present? Yes ● No ○				
Remarks:													
Remarks.													
1													

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: OH	Sampling Point: w-jbl-071018-06
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Lowland	Local relief (concave, convex, ne	
Subregion (LRR or MLRA): LRR R Lat.:	41.392978 Long	.: -82.264996 Datum: NAD 83
Soil Map Unit Name: Om		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y	rear? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significant	tly disturbed? Are "Normal	Circumstances" present? Yes ● No ○
Are Vegetation, Soil, or Hydrology naturally	problematic? (If needed, e	xplain any answers in Remarks.)
Summary of Findings - Attach site map showing		
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes ● No ○	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes ● No ○	within a wetana:	
Hydrology		
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	aves (B9)	Drainage Patterns (B10)
✓ High Water Table (A2) ☐ Aquatic Fauna (B3	, ,	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1	5)	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	` '	Crayfish Burrows (C8)
	eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
	ced Iron (C4) ction in Tilled Soils (C6)	
☐ Iron Deposits (B5) ☐ Thin Muck Surface	* *	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):	10	ology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hydro	ology Present? Yes • No ·
Describe Recorded Data (stream gauge, monitoring well, aerial photo	os, previous inspections), if avail	able:
Remarks:		

vederation - ose scientific fiames of p	iaiits			Sampling Point: w-jbl-20180710-06
(0)	Absolute	Dominant	Illuicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:5(A)
2				Total Number of Dominant
3	0			Species Across All Strata:5(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That are obt, Facw, or Fac
7				Prevalence Index worksheet:
C. II. (Cl. 1 Cl. 1 (District)	0 =	= Total Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species <u>65</u> x 1 = <u>65</u>
1				FACW species <u>20</u> x 2 = <u>40</u>
2				FAC species 15 x 3 = 45
3			-	FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				· ·
6	0			Column Totals: <u>100</u> (A) <u>150</u> (B)
7	0			Prevalence Index = B/A = 1.500
Herb Stratum (Plot size:)	0 =	= Total Cove	er	Hydrophytic Vegetation Indicators:
		_		Rapid Test for Hydrophytic Vegetation
1 Scirpus cyperinus	15	✓	OBL	✓ Dominance Test is > 50%
2. Juncus effusus	20	✓	OBL	✓ Prevalence Index is ≤3.0 ¹
3. Apocynum cannabinum	15	✓	FAC	Morphological Adaptations ¹ (Provide supporting
4. Carex lurida	20	✓	OBL	data in Remarks or on a separate sheet)
5. Scirpus atrovirens	10		OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Impatiens capensis	5		FACW	
7. Onoclea sensibilis	15	✓	FACW	¹ Indicators of hydric soil and wetland hydrology must
8	0			be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				
12		= Total Cove	er	Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- Total Cove	o.	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	er	
				Hydrophytic
				Vegetation
				Present? 165 C NO C
	_			
Remarks: (Include photo numbers here or on a separate s	sheet.)			
joe pye weed 5%				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180710-06

Profile Descr	iption: (De	scribe to	the dept	needed to	locumen	t the indi	cator or c	onfirm the	absence of indicators.)				
Depth													
(inches)	Color (%	Color (moist)	%	Type ¹	Loc ²	Texture	Rem	arks		
0-3	10YR	2/1	100						Sandy Clay Loam				
3-18	10YR	6/1	90	10YR	5/6	10	C	M	Sandy Clay Loam				
									-				
						_							
¹ Type: C=Cond	entration. D	=Depletio	n. RM=Re	duced Matrix, (S=Covere	ed or Coate	ed Sand Gra	ains ² Locat	tion: PL=Pore Lining. M=Ma	atrix			
Hydric Soil I											3		
Histosol (Polv	alue Belo	w Surface	(S8) (LRR I	₹,	Indicators for Probl				
	pedon (A2)				A 149B)		() (7	2 cm Muck (A10)		•		
☐ Black Hist				Thin	Dark Surf	ace (S9) (LRR R, MLI	RA 149B)	Coast Prairie Redo		· · ·		
Hydrogen	Sulfide (A4)						l) LRR K, L)	_		KK N, L, K)		
Stratified	Layers (A5)					Matrix (F2)		Dark Surface (S7) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L)				
Depleted	Below Dark 9	Surface (A	11)		eted Matri				Thin Dark Surface (S9) (LRR K, L)				
Thick Darl	k Surface (A1	12)				ırface (F6)	-7\		☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
	ck Mineral (S					Surface (F	-/)		Piedmont Floodplain Soils (F19) (MLRA 149B)				
	yed Matrix (54)		Read	x Depress	sions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Red									Red Parent Materi	al (F21)			
Stripped N			1.100)						☐ Very Shallow Dark Surface (TF12)				
	ace (S7) (LRF								Other (Explain in I	Remarks)			
³ Indicators of	hydrophytic	vegetatio	n and wetl	and hydrology	must be p	oresent, ur	nless distur	ped or proble	ematic.				
Restrictive La	ayer (if obs	erved):											
Туре:													
Depth (incl	hes):								Hydric Soil Present?	Yes	No O		
Remarks:													

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: 0	H Sampling Point: w-jbl-071018-05
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R Lat.:	41.393474 Lor	ng.: -82.264152
Soil Map Unit Name: Om, WeB		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	vear? Yes No	(If no, explain in Remarks.)
	•	al Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing		, ,
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes ● No ○	Is the Sampled Area within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No	Within a Wedana:	
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (41)		Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	` '	Drainage Patterns (B10)
High Water Table (A2) ☐ Aquatic Fauna (B1 ✓ Saturation (A3) ☐ Marl Deposits (B1		Moss Trim Lines (B16)
		Dry Season Water Table (C2) Crayfish Burrows (C8)
I, an again sum as	neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Reduc		Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	` '	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in	` '	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	. Comunity	✓ FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches):		
V → N →		
Water Table Present? Yes No Depth (inches): Saturation Present?	Wetland Hvo	drology Present? Yes No
Saturation Present? Yes No Depth (inches):	10	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if avail	able:
Remarks:		

vegeration - use scientific names of pia	ants			Sampling Point: w-jbl_20180710-05
6 -1	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:3(A)
2				Total Number of Dominant
3	0			Species Across All Strata:3(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That Are ODL, TACW, OF TAC.
7	0			Prevalence Index worksheet:
	0 =	= Total Cove	r	Total % Cover of: Multiply by:
	0			OBL species $40 \times 1 = 40$
1				FACW species <u>47</u> x 2 = <u>94</u>
2				FAC species $15 \times 3 = 45$
3	_			FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 102 (A) 179 (B)
6				
7		Tatal Carra		Prevalence Index = B/A = 1.755
Herb Stratum (Plot size:)	=	= Total Cove	•	Hydrophytic Vegetation Indicators:
1 Phalaris arundinacea	45	✓	FACW	Rapid Test for Hydrophytic Vegetation
S. America officers	45	✓	OBL	✓ Dominance Test is > 50%
		✓	FAC	✓ Prevalence Index is ≤3.0 ¹
A Caray frankii	10		OBL	Morphological Adaptations ¹ (Provide supporting
T. Timbo anductifalia		\Box	OBL	data in Remarks or on a separate sheet)
O. Canay avinita			OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
7. Columna mandalus			OBL	¹ Indicators of hydric soil and wetland hydrology must
O. Tourstiens serveds			FACW	be present, unless disturbed or problematic.
			TACW	Definitions of Vegetation Strata
9				_
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11				breast neight (DBH), regardless of height.
12		= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
_Woody Vine Stratum (Plot size:)	102 =	= Total Cove		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	oot)			
Remarks: (Include photo numbers here of on a separate sh	leet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl_20180710-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix		_						
(inches)	Color (moist)		Color (moist)	%_	Type ¹	Loc ²	Texture Remarks		
0-18	10YR 6/1	90	10YR 5/6	10	С	М	Sandy Clay Loam		
-			-						
1 –									
* *		on. RM=Reduc	ed Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins ² Locat	ation: PL=Pore Lining. M=Matrix		
Hydric Soil I	ndicators:		_				Indicators for Problematic Hydric Soils: 3		
Histosol (A1)		Polyvalue Belov	w Surface ((S8) (LRR F	ξ ,	2 cm Muck (A10) (LRR K, L, MLRA 149B)		
Histic Epip	pedon (A2)		MLRA 149B)	(00) (Coast Prairie Redox (A16) (LRR K, L, R)		
☐ Black Hist	ic (A3)		Thin Dark Surfa				5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
Hydrogen	Sulfide (A4)		Loamy Mucky N				Dark Surface (S7) (LRR K, L, M)		
Stratified	Layers (A5)		Loamy Gleyed)		Polyvalue Below Surface (S8) (LRR K, L)		
Depleted I	Below Dark Surface (A	11)	✓ Depleted Matri:				☐ Thin Dark Surface (S9) (LRR K, L)		
Thick Dark	k Surface (A12)		Redox Dark Su				☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
Sandy Mu	ck Mineral (S1)		Depleted Dark		7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gle	yed Matrix (S4)		✓ Redox Depress	ions (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red	dox (S5)						Red Parent Material (F21)		
Stripped N	Matrix (S6)						Very Shallow Dark Surface (TF12)		
Dark Surfa	ace (S7) (LRR R, MLRA	(149B)					Other (Explain in Remarks)		
3 Indicators of	hydrophytic vegetation	n and watland	hydrology must bo r	rocont un	loce dictur	and or proble			
		ni and wedand	Thydrology must be p	nesent, un	iless distuit	bed of proble	lemanc.		
Restrictive La	ayer (if observed):								
Type:							Hydric Soil Present? Yes No		
Depth (inch	hes):						Hydric Soil Present? Yes No		
Remarks:									
1									

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy	State: Oh	Sampling Point: w-jbl-071118-01
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Valley bottom	Local relief (concave, convex, i	
Subregion (LRR or MLRA): LRR R Lat.:	41.396660 Lon	g.: -82.261015
Soil Map Unit Name: Ou	121330000	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	tly disturbed? Are "Normal	I Circumstances" present? Yes ● No ○
Are Vegetation , Soil , or Hydrology naturally	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locatio	ns, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area	
Hydric Soil Present? Yes No	within a Wetland?	Yes No
Wetland Hydrology Present? Yes ● No ○		
Hydrology		
Wetland Hydrology Indicators:		Consider Indiator (within a figure in 1)
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)
✓ Surface Water (A1) Water-Stained Lea	avec (R0)	
High Water Table (A2) Aquatic Fauna (B1)	` '	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1		Dry Season Water Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide	Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosph	neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Reduc	ced Iron (C4)	Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	` '	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Sparsely Vegetated Concave Surface (B8)	Remarks)	Microtopographic Relief (D4) ✓ FAC-neutral Test (D5)
Sparsely vegetated contave Surface (bb)		FAC-neutral Test (D5)
Field Observations:	_	
Surface Water Present? Yes No Depth (inches):	3	
Water Table Present? Yes No Depth (inches):	Wotland Hvd	rology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No • Depth (inches):	wetiand nyd	rology Present?
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	able:
Remarks:		
sloping down to north		

VEGETATION - OSE Scientific fiames of p	rancs			Sampling Point: w-jbl-071118-01
Tree Stratum (Plot size:)	Absolute	Dominant Species?	Indicator	Dominance Test worksheet:
	% Cover	ореско.	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:3 (A)
2	0			T
3				Total Number of Dominant Species Across All Strata: 3 (B)
4				Species Across Air Strata.
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 100.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	Total Cove	r	Total % Cover of: Multiply by:
1 Cephalanthus occidentalis	70	✓	OBL	OBL species 103 x 1 = 103
2 Salix nigra	10	Ä	OBL	FACW species 30 x 2 = 60
				FAC species $0 \times 3 = 0$
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5	0			· · · · · · · · · · · · · · · · · · ·
6				Column Totals: 133 (A) 163 (B)
7				Prevalence Index = B/A = 1.226
Herb Stratum (Plot size: 30)	80 =	Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: 30)	-			✓ Rapid Test for Hydrophytic Vegetation
1 Phalaris arundinacea	20	✓	FACW	
2. Leersia oryzoides	8		OBL	✓ Dominance Test is > 50%
			FACW	✓ Prevalence Index is ≤3.0 ¹
		✓	OBL	Morphological Adaptations ¹ (Provide supporting
1			OBL	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1	0			breast height (DBH), regardless of height.
2	0			Sapling/shrub - Woody plants less than 3 in. DBH and
	53 =	Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				groator than 5:25 it (iiii) taiii.
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	0 =	Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes No No
				riesent:
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-071118-01

(inches) 0-16	Matriv	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features								
0-16	Color (moist)	%	Color (moist)	% 1		Loc ²	Texture Remarks			
	5G 3/1	100					Clay Loam			
							· · · · · · · · · · · · · · · · · · ·			
pe: C=Conce	entration. D=Depletio	n. RM=Redu	iced Matrix, CS=Covered	d or Coated S	and Grains	² Locati	on: PL=Pore Lining. M=Matrix			
dric Soil In	dicators:						Indicators for Problematic Hydric Soils: 3			
Histosol (A:	1)		Polyvalue Belov	v Surface (S8)	(LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Histic Epipe	edon (A2)		MLRA 149B)							
Black Histic	c (A3)		Thin Dark Surfa	ice (S9) (LRR	R, MLRA 14	19B)	Coast Prairie Redox (A16) (LRR K, L, R)			
Hydrogen S			Loamy Mucky M	lineral (F1) LF	RR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
Stratified La			✓ Loamy Gleyed N	Matrix (F2)			Dark Surface (S7) (LRR K, L, M)			
	elow Dark Surface (A	(11)	Depleted Matrix	(F3)			Polyvalue Below Surface (S8) (LRR K, L)			
	Surface (A12)	/	Redox Dark Sur	face (F6)			Thin Dark Surface (S9) (LRR K, L)			
	k Mineral (S1)		Depleted Dark S	Surface (F7)			Iron-Manganese Masses (F12) (LRR K, L, R)			
	red Matrix (S4)		Redox Depressi				☐ Piedmont Floodplain Soils (F19) (MLRA 149B)			
				. ,			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Redo							Red Parent Material (F21)			
Stripped Ma							Very Shallow Dark Surface (TF12)			
」 Dark Surfac	ce (S7) (LRR R, MLRA	، 149B)					Other (Explain in Remarks)			
indicators of h	nydrophytic vegetatio	n and wetla	nd hydrology must be p	resent, unless	disturbed o	or probler	matic.			
strictive La	yer (if observed):									
Type: <u>ara</u> v										
Depth (inche							Hydric Soil Present? Yes ● No ○			
	<i>zs).</i> <u>o</u>									
emarks:										

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Sampling	Date: 11-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	w-jbl-071118-02
Investigator(s): JBL,AEH		Section, To	wnship, Range:	s. t. 6N	R. 18W
Landform (hillslope, terrace, etc.): Lowland			ncave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.: 4	41.403877	Long	-82.250073	Datum: NAD 83
Soil Map Unit Name: TyC, Mr				NWI classification:	N/A
Are climatic/hydrologic conditions on the site ty	pical for this time of ye	ear? Yes	; ● No ○	— (If no, explain in Remarks	.)
Are Vegetation , Soil , or Hydrole	ogy significantly	/ disturbed?	Are "Normal	Circumstances" present?	Yes No
Are Vegetation , Soil , or Hydrol		oblematic?		explain any answers in Ren	narks.)
Summary of Findings - Attach site	· .		-		-
Hydrophytic Vegetation Present? Yes	No O			, , ,	,
Hydric Soil Present? Yes Yes	No O		Sampled Area	Yes No	
Wetland Hydrology Present?	No O	within	a Wetland?	163 0 110 0	
Remarks: (Explain alternative procedures here		٠.			
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; ✓ Surface Water (A1) ✓ High Water Table (A2) ✓ Saturation (A3) □ Water Marks (B1)	Water-Stained Leave Aquatic Fauna (B13) Marl Deposits (B15))		Secondary Indicators (minimum Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table Crayfish Burrows (C8)	
Sediment Deposits (B2)	Hydrogen Sulfide OcOxidized Rhizospher		Roots (C3)	Saturation Visible on Aer	ial Imagery (C9)
Drift deposits (B3)	Presence of Reduced		()	Stunted or Stressed Plan	
Algal Mat or Crust (B4)	Recent Iron Reduction	on in Tilled Soils	s (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (-		Shallow Aquitard (D3)	(2.4)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Re	emarks)			D4)
Field Observations:					
Surface Water Present? Yes No	Depth (inches):	2			
Water Table Present? Yes No	Depth (inches):	0	Wetland Hydr	ology Present? Yes	No O
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):	0	Wedana nyan	ology i resent:	
Describe Recorded Data (stream gauge, monitor	ring well, aerial photos,	previous inspe	ections), if availa	ble:	
Remarks:					

vederation - ose scientific fiames of pr	ants			Sampling Point: w-jbl-20180711-02
(T)	Absolute	Dominant	Indicacoi	Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:5(A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:5(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That Are Obl., FACW, OF FAC
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	= Total Cove	r	Total % Cover of: Multiply by: OBL species 20 x 1 = 20
1 Salix nigra	5	✓	OBL	
2				FACW species $85 \times 2 = 170$
3				FAC species $0 \times 3 = 0$
4		$\overline{\Box}$		FACU species $0 \times 4 = 0$
5				UPL species $0 \times 5 = 0$
6				Column Totals: <u>105</u> (A) <u>190</u> (B)
7				Prevalence Index = B/A = 1.810
		= Total Cove	r	· —
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1 Impatiens capensis	45	✓	FACW	
2. Carex lacustris	15	✓	OBL	
3. Phalaris arundinacea	15	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
4. Onoclea sensibilis	4.5	✓	FACW	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Phragmites australis	10		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				
		= Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)			-	greater than 3.20 ft (iiii) tail
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes • No •
Remarks: (Include photo numbers here or on a separate s	heet \			
Remarks. (Include photo numbers here of on a separate s	ileet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180711-02

	iption: (De		the depth	needed to				onfirm the	absence of indicators.)				
Depth (inches)	Color	Matrix (moist)	%	Color	Red (moist)	dox Featu %	res Type ¹	Loc ²		Remarks			
0-10	10YR	2/1	100		inioistj	-70	Type		Sandy Clay Loam	Kemarks			
10-18	10YR		98	10YR									
10-16	TUTK	4/1	90	101K	5/6	2	С	- IVI	Sandy Clay Loam				
						-							
		-				-							
		-				-							
		-				-							
	-				-	-	_						
¹ Type: C=Cond	centration. D	D=Depletio	n. RM=Red	uced Matrix,	CS=Covere	d or Coate	d Sand Gra	ains ² Locat	tion: PL=Pore Lining. M=Matrix				
Hydric Soil I									Indicators for Problemati	ic Hydric Soils : 3			
Histosol (,				value Belov A 149B)	w Surface ((S8) (LRR I	R,	2 cm Muck (A10) (LRR k				
	pedon (A2)				•	ace (S9) (L	DD D MII	DΛ 140R)	Coast Prairie Redox (A16				
Black Hist						Mineral (F1)		-	5 cm Mucky Peat or Pea	t (S3) (LRR K, L, R)			
	Sulfide (A4)					Matrix (F2)		,	Dark Surface (S7) (LRR	K, L, M)			
	Layers (A5) Below Dark		11)		eted Matrix				Polyvalue Below Surface (S8) (LRR K, L)				
	k Surface (A		11)		ox Dark Su				Thin Dark Surface (S9) (LRR K, L)				
	ck Mineral (Dep	eted Dark	Surface (F7	7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
	eyed Matrix (Rede	ox Depress	ions (F8)			☐ Piedmont Floodplain Soils (F19) (MLRA 149B) ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Red		()							Red Parent Material (F21)				
	Matrix (S6)								Very Shallow Dark Surfa				
Dark Surfa	ace (S7) (LR	R R, MLRA	149B)						Other (Explain in Remar				
³ Indicators of	hydrophytic	c vegetatio	n and wetla	nd hydrology	must be p	resent, un	less distur	bed or proble		,			
Restrictive La					·								
Type:	ayer (ii ob												
Depth (incl	hes):								Hydric Soil Present? Ye	es 💿 No 🔾			
Remarks:													
remano.													

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 12-Jul-18
Applicant/Owner: FirstEnergy	State	: OH Sampling Point: w-aeh-071218-01
Investigator(s): JBL,AEH	Section, Township, Ra	nge: S. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, conv	
Subregion (LRR or MLRA): LRR R	Lat.: 41.408097	Long.: -82.236791 Datum: NAD 83
Soil Map Unit Name: DSB		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for	r this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology	7	ormal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology	7	·
, _ , , , , ,	•	ded, explain any answers in Remarks.)
		ations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No C		rea
	within a Wetland	
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in a		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check a		Surface Soil Cracks (B6)
	ater-Stained Leaves (B9) quatic Fauna (B13)	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)
	arl Deposits (B15)	Dry Season Water Table (C2)
	ydrogen Sulfide Odor (C1)	✓ Crayfish Burrows (C8)
	xidized Rhizospheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
	resence of Reduced Iron (C4)	Stunted or Stressed Plants (D1)
	ecent Iron Reduction in Tilled Soils (C6)	Geomorphic Position (D2)
Transdation Visible on Assist Income (DZ)	nin Muck Surface (C7)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ C ☐ Sparsely Vegetated Concave Surface (B8)	ther (Explain in Remarks)	✓ Microtopographic Relief (D4)✓ FAC-neutral Test (D5)
		E The Heddal Test (53)
Field Observations:		
	Depth (inches):	
Water Table Present? Yes No •	Depth (inches): Wetland	I Hydrology Present? Yes ● No ○
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	, 4.10.05, 1.10.01.1.
Describe Recorded Data (stream gauge, monitoring we	I, aerial photos, previous inspections), if a	available:
Remarks:		

VEGETATION - Use scientific fiames of	piarits			Sampling Point: w-aeh-20180712-01
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:
			Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Deminant
3	0			Total Number of Dominant Species Across All Strata: 3 (B)
4				(=,
		H		Percent of dominant Species
5				That Are OBL, FACW, or FAC: 66.7% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	Total Cover	•	Total % Cover of: Multiply by:
1	0			OBL species 65 x 1 = 65
2				FACW species 5 x 2 = 10
				FAC species $15 \times 3 = 45$
3				FACU species $0 \times 4 = 0$
4	0			
5	0			1
6				Column Totals: <u>85</u> (A) <u>120</u> (B)
7	_			Prevalence Index = B/A =1.412
(Dlate)	0 =	Total Cover	•	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				
1 Scirpus atrovirens	35	✓	OBL	Rapid Test for Hydrophytic Vegetation
S. Tumbo an acceptifulia	20	✓	OBL	✓ Dominance Test is > 50%
				✓ Prevalence Index is ≤3.0 ¹
3. Apocynum cannabinum			FAC	Morphological Adaptations ¹ (Provide supporting
4. Juncus effusus			OBL	data in Remarks or on a separate sheet)
5. Phragmites australis	5	\sqcup	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
		H		be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Definitions of Vegetation Strata
0	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2		H		
۷		Tatal Carran		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	85=	Total Cover		greater than 3.28 ft (1m) tall
	10	✓		Herb - All herbaceous (non-woody) plants, regardless of
1				size, and woody plants less than 3.28 ft tall.
2				Size, and woody plante loop than 6.25 it tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	10 =	Total Cover		
				Hydrophytic Vegetation
				Present? Yes • No
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-aeh-20180712-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)												
Depth		Matrix			_							
(inches)	Color	(moist)	%	Color (moist)	%	Type 1	Loc ²	Texture Remarks				
0-12	10YR	3/1	90	10YR 4/6	10	C	М	Silty Clay Loam				
12-18	10YR	4/1	85	10YR 4/6	15	С	М	Silty Clay Loam				
						_						
¹ Type: C=Conc	centration. D	=Depletio	n. RM=Red	uced Matrix, CS=Cov	ered or Coat	ed Sand Gra	ains ² Loca	ation: PL=Pore Lining. M=Matrix				
Hydric Soil I								Indicators for Problematic Hydric Soils: 3				
Histosol (A				Polyvalue Be	elow Surface	(S8) (LRR I	₹,					
	pedon (A2)			MLRA 149B)		/ (==		2 cm Muck (A10) (LRR K, L, MLRA 149B)				
Black Histi				Thin Dark S	urface (S9) ((LRR R, MLF	RA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)				
	Sulfide (A4)	1		Loamy Muck	y Mineral (F	1) LRR K, L))	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)				
	Layers (A5)	'		Loamy Gleye	ed Matrix (F2	2)		Dark Surface (S7) (LRR K, L, M)				
	Below Dark	Surface (A	11)	✓ Depleted Ma	ntrix (F3)			Polyvalue Below Surface (S8) (LRR K, L)				
	k Surface (A		11)	Redox Dark				Thin Dark Surface (S9) (LRR K, L)				
				Depleted Da				☐ Iron-Manganese Masses (F12) (LRR K, L, R)				
	ck Mineral (S			✓ Redox Depr		,		☐ Piedmont Floodplain Soils (F19) (MLRA 149B)				
	yed Matrix (54)		_ '	()			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)				
Sandy Rec								Red Parent Material (F21)				
Stripped M								☐ Very Shallow Dark Surface (TF12)				
Dark Surfa	ace (S7) (LR	R R, MLRA	149B)					Other (Explain in Remarks)				
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology must b	e present, ui	nless disturl	bed or proble	lematic.				
Restrictive La	aver (if ohe	served):										
Type:	., (02.	,.										
Depth (inch	200):							Hydric Soil Present? Yes No				
	les):											
Remarks:												

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 12-Jul-18
Applicant/Owner: FirstEnergy	State: 0	H Sampling Point: w-aeh-071218-02
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Lowland	Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R Lat.:	41.409035 Lon	g.: -82.234027
Soil Map Unit Name: LCB	111103033	NWI classification: N/A
·	vear? Yes No	
Are climatic/hydrologic conditions on the site typical for this time of	,	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significan	tly disturbed? Are "Norma	Il Circumstances" present?
Are Vegetation , Soil , or Hydrology naturally	problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point location	ons, transects, important features, et
Hydrophytic Vegetation Present? Yes No	Is the Sampled Area	
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes ● No ○		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Le	aves (B9)	✓ Drainage Patterns (B10)
High Water Table (A2)	13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1	.5)	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide		Crayfish Burrows (C8)
	heres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Redu☐ Algal Mat or Crust (B4) ☐ Recent Iron Redu☐ Recent Iron Recent Iron Redu☐ Recent Iron Recent Iron Redu☐ Recent Iron Recent Ir		Stunted or Stressed Plants (D1)✓ Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	action in Tilled Soils (C6)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	,	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	remarks	FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):	- Walland Ha	Irology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	8 Wetland Hyd	Irology Present? Yes ● No U
Describe Recorded Data (stream gauge, monitoring well, aerial photo	ns, previous inspections), if availa	able:
Remarks:		

VEGETATION - Use scientific names of plants Sampling Point: EnterIDw-aeh20180712-0 Dominant Indicator **Dominance Test worksheet:** Absolute Tree Stratum (Plot size: _____) Species? Status % Cover Number of Dominant Species 0 That are OBL, FACW, or FAC: 1 (A) Total Number of Dominant 0 1___ Species Across All Strata: (B) 0 Percent of dominant Species 0 100.0% (A/B) That Are OBL, FACW, or FAC: 0 0 Prevalence Index worksheet: Sapling/Shrub Stratum (Plot size: _____) 0 Total % Cover of: Multiply by: = Total Cover OBL species $10 \times 1 = 10$ <u>105</u> x 2 = <u>210</u> FACW species 0 0 x 3 = 0FAC species 0 $0 \times 4 = 0$ FACU species 0 $0 \times 5 = 0$ UPL species Column Totals: 115 (A) 220 (B) 0 Prevalence Index = B/A = 1.913 Herb Stratum (Plot size: _____) = Total Cover 0 Hydrophytic Vegetation Indicators: ✓ Rapid Test for Hydrophytic Vegetation 1 Phalaris arundinacea 95 **FACW** ✓ Dominance Test is > 50% 2. Phragmites australis 10 **FACW ✓** Prevalence Index is ≤3.0 ¹ 3. Juncus effusus 10 Morphological Adaptations ¹ (Provide supporting 0 data in Remarks or on a separate sheet) 0 Problematic Hydrophytic Vegetation ¹ (Explain) 1 Indicators of hydric soil and wetland hydrology must 0 be present, unless disturbed or problematic. 0 **Definitions of Vegetation Strata** 0 0 Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at 11._____ breast height (DBH), regardless of height. 0 Sapling/shrub - Woody plants less than 3 in. DBH and 115 = Total Cover greater than 3.28 ft (1m) tall... Woody Vine Stratum (Plot size: _____) 0 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. 0 0 Woody vine - All woody vines greater than 3.28 ft in = Total Cover Hydrophytic Vegetation Yes ● No ○ Present? Remarks: (Include photo numbers here or on a separate sheet.)

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: EnterIDw-aeh20180712-0

Depth	Matri		absence of indicators.)							
(inches)			Color (moist)	dox Featu	Type ¹	Loc2	Texture Remarks			
0-18	10YR 4/1	. 90	10YR 4/6	10	С	М	Silty Clay Loam			
							-			
1 - 0 0										
		etion. RM=Real	iced Matrix, CS=Covere	ed or Coate	a Sana Gra	ins ² Locat	tion: PL=Pore Lining. M=Ma			
Hydric Soil			□ - · ·		(aa)		Indicators for Proble	ematic Hydric Soils: 3		
Histosol (,		Polyvalue Belo MLRA 149B)	w Surface ((S8) (LRR R	.,	2 cm Muck (A10) (LRR K, L, MLRA 149B)		
	pedon (A2)		Thin Dark Surf	ace (S9) (IRR R. MIR	A 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)		
Black Hist			Loamy Mucky			. (1155)	5 cm Mucky Peat o	or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)		Loamy Gleyed		-		Dark Surface (S7)	(LRR K, L, M)		
	Layers (A5)		✓ Depleted Matri		,		Polyvalue Below Si	urface (S8) (LRR K, L)		
	Below Dark Surface	(All)	Redox Dark Su				Thin Dark Surface (S9) (LRR K, L)			
	rk Surface (A12)		Depleted Dark		7)		Iron-Manganese Masses (F12) (LRR K, L, R)			
	uck Mineral (S1)		Redox Depress		• •		☐ Piedmont Floodpla	in Soils (F19) (MLRA 149B)		
	eyed Matrix (S4)		Redox Depress	510113 (1 0)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Re							Red Parent Materia	al (F21)		
	Matrix (S6)	D. 4.40D)					Very Shallow Dark	Surface (TF12)		
☐ Dark Surf	face (S7) (LRR R, ML	.RA 149B)					Other (Explain in F	Remarks)		
³ Indicators o	f hydrophytic vegeta	ntion and wetla	nd hydrology must be p	present, un	less disturb	ed or proble	ematic.			
Restrictive L	ayer (if observed)):								
Туре:										
Depth (inc	thes):						Hydric Soil Present?	Yes $lacktriangle$ No $lacktriangle$		
Remarks:										
Nemans.										
ı										
ı										

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 12-Jul-18
Applicant/Owner: FirstEnergy	State:	OH Sampling Point: w-aeh-071218-03
Investigator(s): JBL,AEH	Section, Township, Rang	ge: S. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Floodplain	Local relief (concave, conve	
Subregion (LRR or MLRA): LRR R Lat.:	41.410637 L	.ong.: -82.229309
Soil Map Unit Name: LcB		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significan	tly disturbed? Are "Nor	mal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally		ed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	•	
Hydrophytic Vegetation Present? Yes No		· · · · · · · · · · · · · · · · · · ·
Hydric Soil Present? Yes No	Is the Sampled Are	a Yes ● No ○
Wetland Hydrology Present? Yes No	within a Wetland?	165 0 110 0
Remarks: (Explain alternative procedures here or in a separate rep		
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Marl Deposits (B1	13)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1)	Crayfish Burrows (C8)
Drift deposits (B3) Presence of Redu	ction in Tilled Soils (C6) e (C7)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):		hydrology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland F	Hydrology Present? Yes ● No ○
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if av	ailable:
Remarks:		

vederation - ose scientific fiames of p	nants			Sampling Point: w-aeh-20180712-03
(5)	Absolute	Dominant Species?	Illaicacoi	Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:5 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata: 5 (B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 100.0% (A/B)
6	0			That Are OBL, FACW, or FAC:100.0% (A/B)
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0 =	Total Cove	r	Total % Cover of: Multiply by:
	20	✓	OBL	OBL species 100 x 1 = 100
O. Saliv piara	15	✓	OBL	FACW species $\underline{45}$ x 2 = $\underline{90}$
O Ougrana malustrala	15	✓	FACW	FAC species $5 \times 3 = 15$
V			TACT	FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 150 (A) 205 (B)
6				Prevalence Index = B/A = 1.367
		Total Cove		<u> </u>
Herb Stratum (Plot size:)		- rotal cove		Hydrophytic Vegetation Indicators:
1. Carex lacustris	35	✓	OBL	✓ Rapid Test for Hydrophytic Vegetation
2 Typha angustifolia	20	✓	OBL	✓ Dominance Test is > 50%
3. Phalaris arundinacea			FACW	Prevalence Index is ≤3.0 ¹
4. Salix nigra			OBL	Morphological Adaptations ¹ (Provide supporting
F. Quaraus polyetris	10		FACW	data in Remarks or on a separate sheet)
O Impations canonic			FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
7. Annum sanahinum			FAC	¹ Indicators of hydric soil and wetland hydrology must
• • •			TAC	be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				_
0			-	Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1				breast neight (DBH), regardless of neight.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	100 =	Total Cove	r	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0	$\overline{\Box}$		size, and woody plants less than 3.28 ft tall.
3		$\overline{\Box}$		Mancharine Allowed wines are the three COO file
4				Woody vine - All woody vines greater than 3.28 ft in height.
т.,	0 =	Total Cove	r	
		- Total Cove	•	
				Hydrophytic
				Vegetation Present? Yes No
				Present? Yes No O
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-aeh-20180712-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth <u>Matrix</u>	Red		_					
(inches) Color (moist) %	Color (moist)		ype 1	Loc2	Texture Remarks			
0-18 10YR 4/1 85	10YR 5/6	15	С	М	Silty Clay Loam			
					-			
					-			
					· · · · · · · · · · · · · · · · · · ·			
	- <u> </u>							
					· · · · · · · · · · · · · · · · · · ·			
1 Town C. Connectication D. D. Living Division	durand Matrix CC C				Million Di Dava Lining M. Markin			
¹ Type: C=Concentration. D=Depletion. RM=Re	auced Matrix, CS=Covered	or Coated Sa	and Grai	ns ² Locat				
Hydric Soil Indicators:					Indicators for Problematic Hydric Soils: 3			
Histosol (A1)	Polyvalue Below MLRA 149B)	Surface (S8)	(LRR R	,	2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Histic Epipedon (A2)	Thin Dark Surfa	co (CO) (LDD	D MID	A 1/10D)	Coast Prairie Redox (A16) (LRR K, L, R)			
Black Histic (A3)				4 1490)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
Hydrogen Sulfide (A4)	Loamy Mucky M Loamy Gleyed M		K K, L)		Dark Surface (S7) (LRR K, L, M)			
Stratified Layers (A5)	✓ Depleted Matrix				Polyvalue Below Surface (S8) (LRR K, L)			
Depleted Below Dark Surface (A11)	Redox Dark Sur				☐ Thin Dark Surface (S9) (LRR K, L)			
Thick Dark Surface (A12)	Depleted Dark S				☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
Sandy Muck Mineral (S1)	Redox Depressi				Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Gleyed Matrix (S4)	Redux Depressi	0115 (1 0)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Sandy Redox (S5)					Red Parent Material (F21)			
Stripped Matrix (S6)					☐ Very Shallow Dark Surface (TF12)			
☐ Dark Surface (S7) (LRR R, MLRA 149B)					Other (Explain in Remarks)			
³ Indicators of hydrophytic vegetation and wet	and hydrology must be p	resent, unless	disturb	ed or proble	ematic.			
Restrictive Layer (if observed):								
Type:								
Depth (inches):					Hydric Soil Present? Yes ● No ○			
Remarks:								

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy	State: 0	H Sampling Point: w-jbl-071118-04
Investigator(s): JBL,AEH	Section, Township, Range	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Pothole	Local relief (concave, convex,	none): concave Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R Lat.	- : 41.412780 Lo r	ng.: -82.224704
Soil Map Unit Name: MKA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time o	f year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology signification	ntly disturbed? Are "Norma	Il Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally	y problematic? (If needed,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing		
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes ● No ○	Is the Sampled Area within a Wetland?	Yes ● No ○
Wetland Hydrology Present? Yes No		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) ✓ Water-Stained L High Water Table (A2) Aquatic Fauna (` '	☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B		Dry Season Water Table (C2)
Water Marks (B1) ☐ Hydrogen Sulfid		Crayfish Burrows (C8)
	pheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Red		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Rec	luction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surfa	ce (C7)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain i Sparsely Vegetated Concave Surface (B8)	n Remarks)	Microtopographic Relief (D4)
Sparsely vegetated contave surface (Bo)		FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches		
0 0		
Water Table Present? Yes No Depth (inches Saturation Present?): Wetland Hyd	Irology Present? Yes No
Saturation Present? Yes No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photostream)	tos, previous inspections), if avail	able:
Remarks:		

VEGETATION - Ose scientific fiames of p	idires		Sampling Point: w-jbl-20180711-04
Tree Stratum (Plot size:)		ominant Indicat	
Tree Stratum	70 COVE	Status	Number of Dominant Species
1	0		That are OBL, FACW, or FAC: 2 (A)
2	0		Total Number of Deminent
3	0		Total Number of Dominant Species Across All Strata: 2 (B)
4			
			Percent of dominant Species
5			That Are OBL, FACW, or FAC: 100.0% (A/B)
6			_
7	0		Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0 = T	otal Cover	Total % Cover of: Multiply by:
1	0		OBL species <u>55</u> x 1 = <u>55</u>
2			FACW species <u>10</u> x 2 = <u>20</u>
			FAC species $10 \times 3 = 30$
3			FACU species $15 \times 4 = 60$
4			UPL species $0 \times 5 = 0$
5	0		
6	0		Column Totals: 90 (A) 165 (B)
7	0		Prevalence Index = $B/A = 1.833$
(Dlot size:	0 = T	otal Cover	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)			Rapid Test for Hydrophytic Vegetation
1. Scirpus cyperinus	20	✓ OBL	
2. Carex annectens	10	FACW	
3. Juncus tenuis		FAC	Prevalence Index is ≤3.0 ¹
		FACU	Morphological Adaptations ¹ (Provide supporting
			data in Remarks or on a separate sheet)
5. Juncus effusus			Problematic Hydrophytic Vegetation ¹ (Explain)
6. Acer rubrum		FAC FAC	
7	0		Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0		_
9			Definitions of Vegetation Strata
0			Tree Mandy plants 2 in (7.0 and) or many in dispractor at
			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1			breast height (DDH), regardless of height.
2			Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	90 = T	otal Cover	greater than 3.28 ft (1m) tall
	•		
1			Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0		Size, and woody plants less than 3.26 it tall.
3	0	Ц	Woody vine - All woody vines greater than 3.28 ft in
4	0		height.
	0 = T	otal Cover	
			Hydrophytic
			Vegetation
			Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)		
Remarks. (Include photo numbers here of on a separate	sileet.)		

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180711-04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Re		_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 4/1	90	10YR 5/6	10	C	M	Silty Clay Loam	
							-	
				-				
				_				
							•	
			-					
1=			- d M-t-i - 00 - 5	1 6	10 10		See DI D. 111	
		on. RM=Reduc	ed Matrix, CS=Covere	a or Coate	ed Sand Gra	ins ² Locat	tion: PL=Pore Lining. M=Matri	
Hydric Soil I							Indicators for Problem	natic Hydric Soils: 3
Histosol (Polyvalue Belov MLRA 149B)	w Surface	(S8) (LRR F	ζ,	2 cm Muck (A10) (LR	
	pedon (A2)		Thin Dark Surfa	oco (CO) (IDD D MID	A 140P)	Coast Prairie Redox (
Black Hist								Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky N				Dark Surface (S7) (L	
	Layers (A5)		Loamy Gleyed)		Polyvalue Below Surf	
	Below Dark Surface (A	(11)	✓ Depleted Matri:				Thin Dark Surface (S	
Thick Darl	k Surface (A12)		Redox Dark Su		7)			ses (F12) (LRR K, L, R)
Sandy Mu	ck Mineral (S1)		Depleted Dark		7)			Soils (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S4)		Redox Depress	ions (F8)				MLRA 144A, 145, 149B)
Sandy Red	dox (S5)						Red Parent Material (
Stripped N	Matrix (S6)						Very Shallow Dark Su	
Dark Surfa	ace (S7) (LRR R, MLRA	\ 149B)					Other (Explain in Rer	
³ Indicators of	hydrophytic vegetation	on and wetlan	d hydrology must be r	resent. un	iless distur	ed or proble		
			,					
	ayer (if observed):							
Type:							Hydric Soil Present?	Yes ● No ○
Depth (incl	nes):						,	
Remarks:								
1								

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy	State: O	Sampling Point: w-jbl-071118-03
Investigator(s): JBL,AEH	Section, Township, Range:	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex,	none): none Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R Lat.	 : 41.413634 Lon	g.: -82.223982
Soil Map Unit Name: MkA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	of year? Yes No	(If no, explain in Remarks.)
	, , , , , , , , , , , , , , , , , , , ,	Il Circumstances" present? Yes No
		explain any answers in Remarks.)
Summary of Findings - Attach site map showing		
Hydrophytic Vegetation Present? Yes No		-
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes No
Wetland Hydrology Present? Yes No	Within a Wetland:	
Remarks: (Explain alternative procedures here or in a separate re		
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
✓ Surface Water (A1) Water-Stained I	Leaves (B9)	Drainage Patterns (B10)
✓ High Water Table (A2)	B13)	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (315)	Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfic		Crayfish Burrows (C8)
	spheres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Rec ☐ Algal Mat or Crust (B4) ☐ Recent Iron Rec		Stunted or Stressed Plants (D1)
Trans Describe (DE)	duction in Tilled Soils (C6)	Geomorphic Position (D2) Shallow Aquitard (D3)
☐ Iron Deposits (B5) ☐ Thin Muck Surfa ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	()	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	ii renars)	FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches	s):1	
Water Table Present? Yes No Depth (inches	s):0	
Saturation Present? (includes capillary fringe) Yes No Depth (inches		Irology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial pho	tos, previous inspections), if availa	able:
	. , ,	
Describer		
Remarks:		

vederation - ose scientific fiames of pr	ants			Sampling Point: w-jbl-20180711-03
(0)	Absolute	Dominant	Illaicacoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:1(B)
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That are obt, racw, or rac.
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0 =	= Total Cove	er	Total % Cover of: Multiply by:
	0			OBL species 105 x 1 = 105
1				FACW species 0 x 2 = 0
2				FAC species $0 \times 3 = 0$
3				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 105 (A) 105 (B)
6				
7				Prevalence Index = B/A = 1.000
Herb Stratum (Plot size:)	=	= Total Cove	er	Hydrophytic Vegetation Indicators:
	60		OBL	✓ Rapid Test for Hydrophytic Vegetation
··		✓		✓ Dominance Test is > 50%
2. Typha angustifolia	45		OBL	✓ Prevalence Index is ≤3.0 ¹
3. Juncus effusus			OBL OBL	☐ Morphological Adaptations ¹ (Provide supporting
4. Scirpus atrovirens	15	✓	OBL	data in Remarks or on a separate sheet)
5. Rorippa nasturtium-aquaticum				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Seminoris of Vegetation strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	130 =	= Total Cove	er	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
_		П		size, and woody plants less than 3.28 ft tall.
3				
4		$\overline{\Box}$		Woody vine - All woody vines greater than 3.28 ft in height.
4		= Total Cove		Tiolgin.
		- 1000 0010	,1	
				Hydrophytic
				Vegetation Present? Yes ● No ○
				Present? 100 0 110 0
				<u> </u>
Remarks: (Include photo numbers here or on a separate s	heet.)			
watercress 25				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180711-03

Profile Descr	iption: (Describe to	the depth i	needed to document	the indi	cator or c	onfirm the	absence of indicators.)			
Depth	Matrix			dox Featu	ires					
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type 1		Texture	Remarks		
0-18	10YR 5/1	85	10YR 6/6	15	C		Silty Clay Loam			
					_					
					-		-			
	· · · · · · · · · · · · · · · · · · ·	n. RM=Redu	ced Matrix, CS=Covere	d or Coate	d Sand Gra	ins ² Locat	tion: PL=Pore Lining. M=Ma	atrix		
Hydric Soil I							Indicators for Proble	ematic Hydric Soils: 3		
Histosol (•		Polyvalue Belov MLRA 149B)	v Surface ((S8) (LRR F	₹,	2 cm Muck (A10) ((LRR K, L, MLRA 149B)		
	pedon (A2)		Thin Dark Surfa	ace (S9) (IRR R MIR	Δ 149R)	Coast Prairie Redo	x (A16) (LRR K, L, R)		
Black Hist			Loamy Mucky N			-	5 cm Mucky Peat of	or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)		Loamy Gleyed	-			Dark Surface (S7)	(LRR K, L, M)		
	Layers (A5)	11)	✓ Depleted Matrix		,		Polyvalue Below S	urface (S8) (LRR K, L)		
	Below Dark Surface (A k Surface (A12)	11)	Redox Dark Su				Thin Dark Surface	(S9) (LRR K, L)		
			Depleted Dark		7)		Iron-Manganese M	lasses (F12) (LRR K, L, R)		
	ck Mineral (S1) eyed Matrix (S4)		✓ Redox Depress		,			in Soils (F19) (MLRA 149B)		
Sandy Red) (MLRA 144A, 145, 149B)		
	Matrix (S6)						Red Parent Materia			
	ace (S7) (LRR R, MLRA	149R)					☐ Very Shallow Dark			
							Other (Explain in F	Remarks)		
Indicators of	f hydrophytic vegetatio	n and wetlan	d hydrology must be p	resent, un	less disturt	ed or proble	ematic.			
Restrictive La	ayer (if observed):									
Type:							Hydric Soil Present?	v		
Depth (incl	hes):						nyaric Soil Present?	Yes No		
Remarks:										

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy	State: O	Sampling Point: w-jbl-071118-05
Investigator(s): JBL,AEH	Section, Township, Range:	s. t. 6N R. 18W
Landform (hillslope, terrace, etc.): Swale	Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R Lat.:	41.424057 Lon	g.: -82.210402
Soil Map Unit Name: Ch		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	vear? Yes No	(If no, explain in Remarks.)
	,	I Circumstances" present? Yes No
		r di canistances presenti
-	(=: ::=====,	explain any answers in Remarks.)
Summary of Findings - Attach site map showing Hydrophytic Vegetation Present? Yes No O	sampling point location	ons, transects, important reatures, etc
V (A) N- (Is the Sampled Area	
Vac A Na O	within a Wetland?	Yes ● No ○
Remarks: (Explain alternative procedures here or in a separate rep		
Hydrology		
Hydrology Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of 2 required)
Surface Water (A1) Water-Stained Le	aves (R9)	Surface Soil Cracks (B6) ✓ Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B:	` '	Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1	·	Dry Season Water Table (C2)
☐ Water Marks (B1) ☐ Hydrogen Sulfide	Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospl	neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Redu	ced Iron (C4)	Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6)	✓ Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	` '	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Sparsely Vegetated Concave Surface (B8)	Remarks)	Microtopographic Relief (D4)
Sparsely vegetated contave surface (bb)		✓ FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):	Wetland Hyd	rology Present? Yes No
Saturation Present? (includes capillary fringe) Yes No • Depth (inches):		Tology Present:
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	able:
Remarks:		

VEGETATION - OSE SCIENCING Haines O	piants			Sampling Point: w-jbl-20180711-05
(Dlot size)	Absolute	Dominant Species?	Illuicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species
1. Fraxinus pennsylvanica		✓	FACW	That are OBL, FACW, or FAC:5(A)
2. Ulmus americana		✓	FACW	Total Number of Dominant
3. Acer saccharum	5		FACU	Species Across All Strata: 5 (B)
4				
5				Percent of dominant Species
6				That Are OBL, FACW, or FAC: 100.0% (A/B)
7				Prevalence Index worksheet:
T		- Total Cov		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)	50=	= Total Cove	er	
1	0			
2				FACW species $108 \times 2 = 216$
3				FAC species <u>10</u> x 3 = <u>30</u>
				FACU species $\underline{5}$ x 4 = $\underline{20}$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 131 (A) 274 (B)
6				
7				Prevalence Index = B/A = 2.092
Herb Stratum_ (Plot size:)	=	= Total Cove	er	Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
1. Leersia virginica		✓	FACW	✓ Dominance Test is > 50%
2. Phalaris arundinacea	35	✓	FACW	✓ Prevalence Index is ≤3.0 ¹
3. Carex grayi	8		FACW	
4. Carex crinita	8		OBL	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5	0			Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1				bleast height (DBH), regaldless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	=	= Total Cove	er	greater than 3.28 ft (1m) tall
A Toutes des door on discuss	10	✓	FAC	Herb - All herbaceous (non-woody) plants, regardless of
• •			TAC	size, and woody plants less than 3.28 ft tall.
2				.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	10 =	= Total Cove	er	
				Hydrophytic
				Vegetation Present? Yes No
	-111			
Remarks: (Include photo numbers here or on a separa	ate sneet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-jbl-20180711-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			dox Featı	ures				
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹	Loc ²	Texture	Remarks	
0-16	10YR 4/2	95	7.5YR 4/6	5	C		Silty Clay Loam		
							-		
	, p						-		
1	amburation D. D. 1111		and Matrix CC C	· ·	-4 C4 C :	31 ::	ione Di Done Liniu At At 11		
		on. KM=Redu	ced Matrix, CS=Covere	a or Coate	ed Sand Graii	ns ² Locati	ion: PL=Pore Lining. M=Matrix		
Hydric Soil In							Indicators for Problem	atic Hydric Soils: 3	
Histosol (A			Polyvalue Belov MLRA 149B)	w Surface	(S8) (LRR R,		2 cm Muck (A10) (LR	R K, L, MLRA 149B)	
Histic Epipe			Thin Dark Surfa	aca (SQ) (IDD D MID/	1/10R)	Coast Prairie Redox (A16) (LRR K, L, R)	
Black Histic			Loamy Mucky N			(1490)	5 cm Mucky Peat or P	eat (S3) (LRR K, L, R)	
	Sulfide (A4)		Loamy Gleyed				Dark Surface (S7) (LF	RR K, L, M)	
Stratified L			✓ Depleted Matri:)		Polyvalue Below Surfa	ace (S8) (LRR K, L)	
	selow Dark Surface (A	11)	Redox Dark Su				Thin Dark Surface (S9	9) (LRR K, L)	
	Surface (A12)		Depleted Dark				☐ Iron-Manganese Mass	ses (F12) (LRR K, L, R)	
	k Mineral (S1)		✓ Redox Depress		7)			Soils (F19) (MLRA 149B)	
	ed Matrix (S4)		Redox Depress	10115 (F6)			Mesic Spodic (TA6) (1	MLRA 144A, 145, 149B)	
Sandy Redo	ox (S5)						Red Parent Material (F21)	
Stripped Ma	atrix (S6)						Very Shallow Dark Su		
Dark Surfac	ce (S7) (LRR R, MLRA	\ 149B)					Other (Explain in Ren		
³ Indicators of I	hydrophytic vegetatio	on and wetlar	nd hydrology must be p	resent, ur	nless disturbe	ed or proble			
	yer (if observed):					•			
Type:	yer (ii observed).								
Depth (inche	ac):						Hydric Soil Present?	Yes No	
	cs)								
Remarks:									
1									

Project/Site Beaver Brownhelm Project		City/County	Lorain County	Samplin	Date: 08-Oct-18
Applicant/Owne First Energy			State: OH	Sampling Point:	w-aeh-20181008-01
Investigator(s) AEH, TL		Section, T	ownship, Range:	т 6N	R. 18W
Landform (hillslope, terrace, etc Swale		_ Local relief (c	oncave, convex, no	n concave	Slope 0.0 % / 0.0
Subregion (LRR or MLRA LRR R	l at :				Datum: NAD 83
	Lat.:	41.409526	Long.	-82.237905	
Soil Map Unit Nam DSB				NWI classificatio	N/A
Are climatic/hydrologic conditions on the sit	e typical for this time of	Ye	es 💿 No 🔾 (If no, explain in Remar	
Are Vegetatio , Soil , or Hyd	lrolog 🗌 significant	ly disturbed	Are "Normal C	Circumstances" presen	Yes No
Are Vegetatio , Soil , or Hyd	Irolog naturally p	oroblematic	(If needed, ex	plain any answers in R	emark
Summary of Findings - Attach s	ite map showing	sampling _l	-	-	
Hydrophytic Vegetation Presen Yes			'	· ·	·
Hydric Soil Present? Yes	No O		e Sampled	Yes No	
Yee (Area		ies \bigcirc No \bigcirc	
Wetland Hydrology Present? Remarks: (Explain alternative procedures					
Hydrology Wetland Hydrology Indicator				Secondary Indicators (mini	mum of 2 required\
Primary Indicators (minimum of one require	ed: check all that apply)			Secondary Indicators (mini Surface Soil Cracks (Be	
✓ Surface Water (A1)	Water-Stained Lea	aves (R		Drainage Patterns (B1	
✓ High Water Table (A2	Aquatic Fauna (B1	•		Moss Trim Lines (B16)	
✓ Saturation (A3)	Marl Deposits (B15			Dry Season Water Tab	le (C
Water Marks (B1)	Hydrogen Sulfide (Odor (C		Crayfish Burrows (C	
Sediment Deposits (B2	Oxidized Rhizosph	eres along Living	Roots (C	Saturation Visible on A	erial Imagery (C
Drift deposits (B3)	Presence of Reduc			Stunted or Stressed Pl	•
Algal Mat or Crust (B4	Recent Iron Reduc	ction in Tilled Soi	ls (C	✓ Geomorphic Position ()2
Iron Deposits (B5)	Thin Muck Surface			Shallow Aquitard (D3	
☐ Inundation Visible on Aerial Imagery (B☐ Sparsely Vegetated Concave Surface (Other (Explain in F	Remarks		✓ Microtopographic Relie✓ FAC-neutral Test (D	л (D
Sparsery regetated corneave surface (TAC-fleutial Test (D	
Field Observations: Surface Water Present? Yes No		,			
Carrace Tracer Frederics	` ` ` `	4			
Water Table Present? Yes • No	Depth (inches):	0	Wetland Hydro	logy Presen Yes	No
Saturation Present? (includes capillary fringe) Yes No		0			
Describe Recorded Data (stream gauge, mor	nitoring well, aerial photos	s, previous insp	pections), if available	e:	
Remarks:					

VEGETATION - Use scientific names of plants

				Sampling Point w-aeh-20181008-01
Tree Stratu (Plot size:)	Absolut	Dominan t	Indicato	Dominance Test workshee
1	0			Number of Dominant Species That are OBL, FACW, or FAC:3(A)
2				
				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4				Percent of dominant Species
5	0			That Are OBL, FACW, or
6	0			
7				Prevalence Index workshee
Sapling/Shrub Stratu (Plot size:)	0	= Total Cove		
1	0			
2				FACW species <u>15</u> x 2 = <u>30</u>
3				FAC species $\underline{20}$ x 3 = $\underline{60}$
_				FACU species $0 \times 4 = 0$
4				UPL species $0 \times 5 = 0$
5				
6				
7				Prevalence Index = B/A =1.733
Herb Stratu (Plot size:)	0	= Total Cove		Hydrophytic Vegetation Indicato
1 Eleocharis palustris	20	✓	OBL	✓ Rapid Test for Hydrophytic Vegetati
2 Typha angustifolia	20	✓	OBL	✓ Dominance Test is > 50
3 Persicaria pensylvanica		<u> </u>	FACW	✓ Prevalence Index is ≤3. 1
4. Symphyotrichum lateriflorum	10		FAC	☐ Morphological Adaptations ¹ (Provide
••				supporting data in Remarks or on a separate
5. Persicaria virginiana	10		FAC	☐ Problematic Hydrophytic Vegetation ¹ (Expla
6	0			1
7	0			Indicators of hydric soil and wetland hydrology must
8	0_			
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
	0			
12		= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratu (Plot size:)				
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove		
				Hydrophyti
				Vegetation Yes No
Remarks: (Include photo numbers here or on a separate she	ee			
•				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined b

Soil Sampling Point w-aeh-20181008-01

Depth (inches) Co	Matrice						absence of indic	
	Matrix		Re	dox Featur	es			
0-18 10YF	lor (moist	%	Color (moist	%	Type ¹	Loc ²	Texture	Remarks
	R 4/1	90	10YR 5/6	10	С	PL	Silty Clay	
-							-	
				_				
¹ Type: C=Concentration	n. D=Depletio	on. RM=Redu	iced Matrix, CS=Cove	red or Coate	d Sand Gra	nins ² Locat	tion: PL=Pore Lining. M	
Hydric Soil Indicate								omatic Hudric Scil 3
Histosol (A1)	JI5.		Dobarduo Pol	ou Curtoso I	(CO) (LDD		Indicators for Probl	ematic Hydric Soil
	12		Polyvalue Bel R, MLRA 149	ow Surrace (B)	(56) (LKK		2 cm Muck (A10)	LRR K, L, MLRA 149
Histic Epipedon (A	12		☐ Thin Dark Su	-	LRR R. MLF	RA 14	Coast Prairie Redo	x (A16) (LRR K, L,
Black Histic (A3	(A4		Loamy Mucky				5 cm Mucky Peat	or Peat (S3) (LRR K, L,
Hydrogen Sulfide			Loamy Gleye	-	Littery		Dark Surface (S7)	(LRR K, L,
Stratified Layers (✓ Depleted Mat				Polyvalue Below S	urface (S8) (LRR K,
Depleted Below D		\1	Redox Dark S				Thin Dark Surface	(S9) (LRR K,
Thick Dark Surface			Depleted Dar				☐ Iron-Manganese M	lasses (F12) (LRR K, L,
Sandy Muck Miner	al (S		Redox Depre				Piedmont Floodpla	nin Soils (F19) (MLRA 14
Sandy Gleyed Mat	rix (S		Redox Depre	5510115 (F6			Mesic Spodic (TA6) (MLRA 144A, 145, 14
Sandy Redox (S5							Red Parent Materi	
Stripped Matrix (S	6						Very Shallow Dark	
Dark Surface (S7)	(LRR R, MLRA	A 149					Other (Explain in I	
³ Indicators of hydrop	hytic vegetatio	on and wetla	ad hydrology must be	nrecent un	lecc dictur	and or probl	Other (Explain in t	Citatio
		on and weda	id Hydrology must be	present, un	iless distuit	bed of probl		
Restrictive Layer (if	observed							
Туре:								
Depth (inches):							Hydric Soil Present	Yes No
Remarks:								
1								

Project/Site: Brownhelm-Beaver-Black River	r	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: Oh	Sampling Point: upl-jbl-071018-03
Investigator(s): JBL,AEH		Section, Township, Range:	s. t. 7N R. 18W
Landform (hillslope, terrace, etc.): Flat		Local relief (concave, convex, i	
Subregion (LRR or MLRA): LRR R	Lat.:	41.4272468 Lon	g.: -82.263259 Datum: NAD 83
Soil Map Unit Name: FuA			NWI classification: N/A
Are climatic/hydrologic conditions on the	e site typical for this time of y	year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or	Hydrology significant	ly disturbed? Are "Norma	Circumstances" present? Yes No
Are Vegetation , Soil , or	Hydrology naturally p		explain any answers in Remarks.)
		,	ns, transects, important features, etc
Hydrophytic Vegetation Present? Ye	es O No •		
Hydric Soil Present?	es O No 💿	Is the Sampled Area within a Wetland?	Yes ○ No •
Wetland Hydrology Present?	es O No 💿	Within a rectain.	
Hydrology			
Wetland Hydrology Indicators:			Control of Control
Primary Indicators (minimum of one red	nuired: check all that apply)		Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	ives (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B1	• •	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15	5)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide	Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)		eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduc	` '	Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)	_	ction in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface		Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7 Sparsely Vegetated Concave Surface (B8	Other (Explain in i	Remarks)	☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
	,		The fleddal rese (53)
Field Observations: Surface Water Present? Yes I	No Depth (inches):		
Colombian Dansant2	No Depth (inches):	Wetland Hvd	rology Present? Yes O No 💿
(includes capillary fringe)	Depth (inches):		
Describe Recorded Data (stream gauge,	monitoring well, aerial photos	s, previous inspections), if availa	ble:
Remarks:			

VEGETATION - Use scientific names of plants

VEGETATION - OSE Scientific fiames of p	Janes			Sampling Point: upl-jbl-071018-03
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
ree Stratum (1 lot 3/26)	-70 COVEL		Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Tatal Nambau of Danisant
3	0			Total Number of Dominant Species Across All Strata: 4 (B)
4				(5)
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	Total Cover		Total % Cover of: Multiply by:
1	0			OBL species 0 x 1 = 0
2				FACW species $\underline{20}$ x 2 = $\underline{40}$
				FAC species
3				FACU species $\underline{55}$ x 4 = $\underline{220}$
4				UPL species $0 \times 5 = 0$
5	0			'
6	0			Column Totals: 100 (A) 335 (B)
7	0			Prevalence Index = B/A = 3.350
(Plot size:	0 =	Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)	· —			Rapid Test for Hydrophytic Vegetation
1. Andropogon virginicus	30	✓	FACU	Dominance Test is > 50%
2 Erigeron philadelphicus	25	✓	FAC	
3. Juncus torreyi		✓	FACW	Prevalence Index is ≤3.0 ¹
		✓	FACU	Morphological Adaptations ¹ (Provide supporting
•			17100	data in Remarks or on a separate sheet)
5				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				1
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
				breast height (DBH), regardless of height.
1				breast height (DDF1), regardless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	100 =	Total Cover	•	greater than 3.28 ft (1m) tall
	0			Llorb All borboscous (non woods) plants, regardless of
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				size, and woody plants less than 5.20 it tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	Total Cover		
				Hydrophytic
				Vegetation Present? Yes No No
				Present? Yes V NO V
				<u> </u>
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071018-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth		Matrix			ox Featu	res				
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture Remarks		
0-7	10YR	4/3	100							
7-14	10YR	4/3	95	10YR 5/6				<u> </u>		
					-			-		
				- <u></u>						
								·		
	-	-	-		-					
								-		
					-					
										
¹ Type: C=Cond	centration. D	=Depletion	n. RM=Re	duced Matrix, CS=Covered	or Coated	d Sand Grain	ns ² Locati	ion: PL=Pore Lining. M=Matrix		
Hydric Soil I				,						
Histosol (Polyvalue Below	Surface (S8) (IRD D		Indicators for Problematic Hydric Soils: 3		
	pedon (A2)			MLRA 149B)	Junace (JUJ (LINI K,		2 cm Muck (A10) (LRR K, L, MLRA 149B)		
				Thin Dark Surfa	ce (S9) (L	RR R, MLRA	(149B)	Coast Prairie Redox (A16) (LRR K, L, R)		
Black Hist				Loamy Mucky M			•	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	Sulfide (A4)			Loamy Gleyed N				Dark Surface (S7) (LRR K, L, M)		
	Layers (A5)			Depleted Matrix				Polyvalue Below Surface (S8) (LRR K, L)		
	Below Dark		11)	Redox Dark Sur				☐ Thin Dark Surface (S9) (LRR K, L)		
	k Surface (A:			Depleted Dark S		7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
	ck Mineral (S			Redox Depressi)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gle	yed Matrix (S4)		Redox Depressi	JIIS (FO)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red	dox (S5)							Red Parent Material (F21)		
Stripped N	Matrix (S6)							Very Shallow Dark Surface (TF12)		
Dark Surfa	ace (S7) (LR	R R, MLRA	149B)					Other (Explain in Remarks)		
3 Indicators of	hydrophytic	vegetatio	n and wet	and hydrology must be p	ecent unl	occ dicturbe	nd or problem			
			ii ana wea	and hydrology mast be p	cscrit, urii	C33 distuibe	d or probler	inate.		
Restrictive La	ayer (if obs	erved):								
Type:								Haddin Call Danasa V. O. N. O.		
Depth (inch	nes):							Hydric Soil Present? Yes ○ No •		
Remarks:							,			

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy	State: 0	H Sampling Point: upl-jbl-071018-04
Investigator(s): JBL,AEH	Section, Township, Range	S. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex,	none): flat Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.: 41.426320 Lor	ng.: -82.2629910
Soil Map Unit Name: RdA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical	for this time of year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology		al Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology		in circumstances present:
, _ , ;	,	explain any answers in Remarks.)
	<u> </u>	ons, transects, important features, etc
Hydrophytic Vegetation Present? Yes No		
Hydric Soil Present? Yes No	within a Wetland?	Yes ○ No •
Wetland Hydrology Present? Yes No Remarks: (Explain alternative procedures here or in		
Hydrology		
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check	all that apply)	Secondary Indicators (minimum of 2 required)
Surface Water (A1)	Water-Stained Leaves (B9)	Surface Soil Cracks (B6) Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along 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 Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8)	Other (Explain in Remarks)	☐ Microtopographic Relief (D4) ☐ FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No •	Depth (inches):	
Water Table Present? Yes No •	Depth (inches): Wetland Hye	drology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No •	Depth (inches):	noisy resent.
Describe Recorded Data (stream gauge, monitoring w	vell, aerial photos, previous inspections), if avail	able:
Remarks:		

VEGETATION - Use scientific names of plants

vegeration - use scientific names of pla	ints			Sampling Point: upl-jbl-071018-04
(2)	Absolute	Dominant Species 2	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1(A)
2				Total Number of Dominant
3	0			Species Across All Strata:
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC:50.0% (A/B)
6	0			That are obt, racw, or rac.
7	0			Prevalence Index worksheet:
	0 =	= Total Cove	•	Total % Cover of: Multiply by:
	0			OBL species $10 \times 1 = 10$
1				FACW species <u>20</u> x 2 = <u>40</u>
2				FAC species $40 \times 3 = 120$
3	_			FACU species $35 \times 4 = 140$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 105 (A) 310 (B)
6				
7				Prevalence Index = B/A = 2.952
Herb Stratum (Plot size:)		= Total Cove	•	Hydrophytic Vegetation Indicators:
A Annual Control of the Control of t	40		EAC	Rapid Test for Hydrophytic Vegetation
1 Apocynum cannabinum	10	✓	FAC	☐ Dominance Test is > 50%
2. Carex vulpinoidea		✓	OBL FACU	✓ Prevalence Index is ≤3.0 ¹
3. Festuca arundinacea				☐ Morphological Adaptations ¹ (Provide supporting
4. Dichanthelium clandestinum			FACW	data in Remarks or on a separate sheet)
5. Onoclea sensibilis	10		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Bromus arvensis			FACU	¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	105 =	= Total Cove		greater than 3.28 ft (1m) tall
	0			Herb - All herbaceous (non-woody) plants, regardless of
1	0			size, and woody plants less than 3.28 ft tall.
2				
3				Woody vine - All woody vines greater than 3.28 ft in height.
4		= Total Cove		neight.
	=	= Total Covel		
				Hydrophytic
				Vegetation No. No. (a)
				Present? Yes Vivia No
Remarks: (Include photo numbers here or on a separate she	eet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071018-04

Profile Descr	iption: (Describe to	the depth i	needed to document	the indi	cator or co	nfirm the	absence of indicators.)	
Depth	Matrix			lox Featu	ires		_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture Remarks	
0-15	10YR 3/3	98	10YR 4/4	2			Silty Clay Loam	
						-		
							· ·	
				-				
							•	
¹ Type: C=Cond	centration. D=Depletio	n. RM=Redu	ced Matrix, CS=Covered	d or Coate	d Sand Grai	ns ² Locati	tion: PL=Pore Lining. M=Matrix	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils :	3
Histosol (Polyvalue Below	V Surface ((S8) (LRR R,			
	pedon (A2)		MLRA 149B)				2 cm Muck (A10) (LRR K, L, MLRA 149B)	
☐ Black Hist			Thin Dark Surfa			\ 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	
	Sulfide (A4)		Loamy Mucky M	lineral (F1) LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R	.)
Stratified	Layers (A5)		Loamy Gleyed N	4atrix (F2))		☐ Dark Surface (S7) (LRR K, L, M) ☐ Polyvalue Below Surface (S8) (LRR K, L)	
Depleted	Below Dark Surface (A:	11)	Depleted Matrix				Thin Dark Surface (S9) (LRR K, L)	
Thick Darl	k Surface (A12)		Redox Dark Sur				Iron-Manganese Masses (F12) (LRR K, L, F	2)
Sandy Mu	ck Mineral (S1)		Depleted Dark S		7)		Piedmont Floodplain Soils (F19) (MLRA 14	
	yed Matrix (S4)		Redox Depressi	ons (F8)			Mesic Spodic (TA6) (MLRA 144A, 145, 149	
Sandy Red							Red Parent Material (F21)	ы
	Matrix (S6)						Very Shallow Dark Surface (TF12)	
Dark Surfa	ace (S7) (LRR R, MLRA	149B)					Other (Explain in Remarks)	
3 Indicators of	hydrophytic vogotatio	n and wotlan	d hydrology must be p	rocont un	loce dicturb	nd or proble		
		ii ana wedan	la Hydrology Mast be p	reserie, un	icss disturbe	a or proble	Critatic.	
	ayer (if observed):							
Type:							Hydric Soil Present? Yes No •	
Depth (incl	nes):						Trydric Soil Frescher Tes 140	
Remarks:								
I								
1								
l								

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain Sampling Date: 09-Jul-18
Applicant/Owner: FirstEnergy	State: OH Sampling Point: upl-jbl-070918-01
Investigator(s): JBL,AEH	Section, Township, Range: S. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Mound	Local relief (concave, convex, none): flat Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R Lat.:	41.419674 Long.: 41.419674 Datum: NAD 83
Soil Map Unit Name: FuA	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significant	tly disturbed? Are "Normal Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally	problematic? (If needed, explain any answers in Remarks.)
Summary of Findings - Attach site map showing	sampling point locations, transects, important features, et
Hydrophytic Vegetation Present? Yes ○ No ●	
Hydric Soil Present? Yes ○ No •	Is the Sampled Area within a Wetland? Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	Within a Wedana.
Hydrology	
Hydrology Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of 2 required)
Surface Water (A1) Water-Stained Lea	
High Water Table (A2) Aquatic Fauna (B3	
Saturation (A3) Marl Deposits (B1	5) Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizosph	neres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	ced Iron (C4) Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Sparsely Vegetated Concave Surface (B8)	
Sparsely vegetated concave surface (bo)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No Depth (inches):	
Saturation Present?	Wetland Hydrology Present? Yes ○ No ●
(includes capillary fringe) Yes V No Depth (inches):	
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if available:
Develop	
Remarks:	

VEGETATION - Use scientific names of plant

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cove		Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: 0 (A)
2.	0			
				Total Number of Dominant
3				Species Across All Strata:3(B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6	0			That the obly thou, or their
7	0			Prevalence Index worksheet:
Continue (Charle Charles) (Plot size:	0	= Total Cover		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species x 1 =
1	0			FACW species 0 x 2 = 0
2	0			FAC species $10 \times 3 = 30$
3				
4				FACU species $\frac{74}{}$ x 4 = $\frac{296}{}$
5				UPL species $0 \times 5 = 0$
6				Column Totals: <u>84</u> (A) <u>326</u> (B)
_	-			Drevelence Index P/A 2 001
7		- Total Com		Prevalence Index = B/A = 3.881
Herb Stratum (Plot size:)	0	= Total Cover		Hydrophytic Vegetation Indicators:
4. Latina annularitatura	15		EACH	Rapid Test for Hydrophytic Vegetation
1. Lotus corniculatus		V	FACU	☐ Dominance Test is > 50%
2. Festuca arundinacea		✓	FACU	Prevalence Index is ≤3.0 ¹
3. Dactylis glomerata		✓	FACU	☐ Morphological Adaptations ¹ (Provide supporting
4. Apocynum cannabinum	10		FAC	data in Remarks or on a separate sheet)
5. Phleum pratense	12		FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Cirsium arvense	9		FACU	
7 Coronilla varia	20			$^{ m 1}$ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
	104	= Total Cover	'	greater than 3.28 ft (1m) tall
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0			size, and woody plants less than 3.20 it tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cover		
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Present? Yes V NO V
Remarks: (Include photo numbers here or on a separate she	eet.)			
crwn vetch 20				

Sampling Point: upl-jbl-070918-01

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-070918-01

Profile Descri	iption: (De	scribe to	the depth	needed to	documen	t the indic	cator or c	onfirm the	absence of indicators.)		
Depth (inches)		Matrix				dox Featu			·		
(inches)		(moist)	%		moist)	%	Type 1		Texture	Remarks disturbed	
0-8	10YR	4/3	98	10YR	4/6	_ 2	C		Silty Clay Loam	distuibed	
	-	-								*	
			-	-					-		
		-		-							
										+	
									-		
	-	-	-								
		-	-								
										l e	
¹ Type: C=Cond	entration. D	=Depletio	n. RM=Red	uced Matrix,	CS=Covere	ed or Coate	d Sand Gra	ains ² Locat	tion: PL=Pore Lining. M=Ma	atrix	
Hydric Soil I	ndicators:								Indicators for Probl	ematic Hydric Soils: 3	
Histosol (/	A1)					w Surface ((S8) (LRR I	٦,		(LRR K, L, MLRA 149B)	
Histic Epip	pedon (A2)				A 149B)					ox (A16) (LRR K, L, R)	
Black Histi	ic (A3)					ace (S9) (L				or Peat (S3) (LRR K, L, R)	
Hydrogen	Sulfide (A4)					Mineral (F1))	Dark Surface (S7)		
Stratified I	Layers (A5)					Matrix (F2)				Surface (S8) (LRR K, L)	
	Below Dark		11)		eted Matri				Thin Dark Surface		
Thick Dark	c Surface (A	12)				ırface (F6)	7)			Masses (F12) (LRR K, L, R)	
Sandy Mu	ck Mineral (9	51)				Surface (F7	/)			ain Soils (F19) (MLRA 149B)	
Sandy Gle	yed Matrix (S4)		Redo	x Depress	sions (F8)				5) (MLRA 144A, 145, 149B)	
Sandy Red	dox (S5)								Red Parent Materi		
Stripped N	/latrix (S6)								Very Shallow Dark	Surface (TF12)	
Dark Surfa	ace (S7) (LR	R R, MLRA	149B)						Other (Explain in		
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology	must be p	oresent, un	less disturl	ped or proble	ematic.		
Restrictive La											
Type: _ar		ici ved ji									
Depth (inch									Hydric Soil Present?	Yes O No 💿	
	103)0										
Remarks:											

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 09-Jul-18
Applicant/Owner: FirstEnergy	State: Oh	Sampling Point: upl-jbl-070918-02;03
Investigator(s): JBL,AEH	Section, Township, Range:	S. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, i	none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR L Lat.:	41.417563 Lon	g.: -82.263780 Datum: NAD 83
Soil Map Unit Name: FuA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of y	ear? Yes No	(If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Are "Norma	l Circumstances" present? Yes ● No ○
Are Vegetation , Soil , or Hydrology naturally		explain any answers in Remarks.)
Summary of Findings - Attach site map showing	,	
Hydrophytic Vegetation Present? Yes ○ No •		-
Hydric Soil Present? Yes No •	Is the Sampled Area within a Wetland?	Yes ○ No ●
Wetland Hydrology Present? Yes ○ No ●	within a wettand:	
Remarks: (Explain alternative procedures here or in a separate repo	rt.)	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea A making Forms (A1)	` '	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3) Aquatic Fauna (B1.		Moss Trim Lines (B16)
		☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8)
The state of the s		Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Presence of Reduc	eres along Living Roots (C3)	Stunted or Stressed Plants (D1)
	tion in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	• ,	Shallow Aquitard (D3)
Inundation Visible on Assist Imagen (P7)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	ernarks)	FAC-neutral Test (D5)
Field Observations		
Field Observations: Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):		
Saturation Present? (includes capillary fringe) Yes No Depth (inches):	Wetland Hyd	rology Present? Yes O No •
Describe Recorded Data (stream gauge, monitoring well, aerial photos	, previous inspections), if availa	able:
Remarks:		
I and the second		

VEGETATION - Use scientific names of plant

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover		Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:0(A)
2	0			
3				Total Number of Dominant Species Across All Strata: 4 (B)
4				Species Across All Strata.
5	-			Percent of dominant Species
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
	0	= Total Cove		Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)		- Total Cove		OBL species 0 x 1 = 0
1	0			· <u> </u>
2				FACW species $0 \times 2 = 0$
3				FAC species $0 \times 3 = 0$
4				FACU species 100 x 4 = 400
5				UPL species $0 \times 5 = 0$
6				Column Totals: 100 (A) 400 (B)
7.				Prevalence Index = B/A = 4.000
r		= Total Cove		·
Herb Stratum (Plot size:)	0	- Total Cove		Hydrophytic Vegetation Indicators:
1 Festuca arundinacea	25	✓	FACU	Rapid Test for Hydrophytic Vegetation
O Achillan millafalium	15		FACU	☐ Dominance Test is > 50%
3. Lotus corniculatus	20	✓	FACU	Prevalence Index is ≤3.0 ¹
t Collision and the state		V	FACU	☐ Morphological Adaptations ¹ (Provide supporting
• •			FACU	data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				1 Tudicateur of hydric cail and watland hydrology much
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Definitions of Vegetation Strata
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			 Sapling/shrub - Woody plants less than 3 in. DBH and
(Table 1)	95	= Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1 Lonicera japonica		✓	FACU	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	5	= Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate sh	eet.)			

Sampling Point: upl-jbl-070918-02;03

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-070918-02;03

Profile Descr	iption: (Describe to	the depth ne	eded to document	the indica	ator or co	onfirm the	absence of indicators.)	
Depth	Matrix			lox Featur				
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc2	Texture	Remarks
0-16	10YR 3/3	100					Silty Clay Loam	
	-			-				
	-			-				
-								
							-	
1 Tumber C. Co	contration D. D	n DM Dode	d Matrix CC Court	d or Casta !	Cond C	ine 21 '	ion. DI - Dava Linia - A4 A4 .	with.
		n. KIM=Keauce	u Matrix, W=Covered	u or coated	Sand Gra	iiis ²Locat	ion: PL=Pore Lining. M=Mat	
Hydric Soil I							Indicators for Proble	matic Hydric Soils: 3
Histosol (,		Polyvalue Belov MLRA 149B)	v Surface (S	88) (LRR R	-	2 cm Muck (A10) (L	RR K, L, MLRA 149B)
	pedon (A2)			(00) (11	חוא חחב	A 140D)	Coast Prairie Redox	(A16) (LRR K, L, R)
Black Hist			Thin Dark Surfa					Peat (S3) (LRR K, L, R)
Hydrogen	Sulfide (A4)		Loamy Mucky M		LRR K, L)		Dark Surface (S7) (
Stratified	Layers (A5)		Loamy Gleyed N					rface (S8) (LRR K, L)
Depleted	Below Dark Surface (Al	11)	Depleted Matrix				Thin Dark Surface (
Thick Dar	k Surface (A12)		Redox Dark Sur					nsses (F12) (LRR K, L, R)
Sandy Mu	ck Mineral (S1)		Depleted Dark S)			n Soils (F19) (MLRA 149B)
Sandy Gle	yed Matrix (S4)		Redox Depressi	ons (F8)				(MLRA 144A, 145, 149B)
Sandy Red	dox (S5)							
Stripped N							Red Parent Material	
	ace (S7) (LRR R, MLRA	149B)					☐ Very Shallow Dark S	
		-					Other (Explain in Re	emarks)
Indicators of	hydrophytic vegetation	n and wetland	hydrology must be p	resent, unle	ess disturb	ed or proble	ematic.	
Restrictive L	ayer (if observed):							
Туре:								
Depth (inc	nes):						Hydric Soil Present?	Yes O No 💿
Remarks:								
remanor								

Project/Site: Brownhelm-Beaver-Black Rive	r	City/County:	Lorain	Sampling	Date: 09-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-070918-04
Investigator(s): JBL,AEH		Section, To	ownship, Range: S.		R. 18W
Landform (hillslope, terrace, etc.): Hills	side	-	oncave, convex, nor		Slope: 0.0 % / 0.0
Subregion (LRR or MLRA):	Lat.:	41.416419	Long.:	-82.264918	Datum: NAD 83
Soil Map Unit Name: FUA					 N/A
	it- ti fthi- timef	Ve	s • No O		·
Are climatic/hydrologic conditions on the Are Vegetation , Soil , or		ear?	\-	f no, explain in Remarks rcumstances" present?	Yes No
		-		·	
		roblematic?		plain any answers in Ren	•
Summary of Findings - Attac		sampling p	ooint locations	s, transects, impo	rtant reatures, et
7	es O No 💿	Ts the	Sampled Area		
1.7	es O No O		n a Wetland?	Yes O No 💿	
Wetland Hydrology Present?	es O No 💿				
Hydrology					
Wetland Hydrology Indicators:			<u>_S</u>	econdary Indicators (minimu	um of 2 reauired)
Primary Indicators (minimum of one re	quired; check all that apply)			Surface Soil Cracks (B6)	
Surface Water (A1)	Water-Stained Leav	. ,		Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B13	-	L	Moss Trim Lines (B16)	(00)
Saturation (A3) Water Marks (B1)	Marl Deposits (B15	-	L	Dry Season Water Table	(C2)
Sediment Deposits (B2)	Hydrogen Sulfide C		Poets (C3)	Crayfish Burrows (C8) Saturation Visible on Aer	ial Imageny (CO)
Drift deposits (B3)	Oxidized Rhizosphe Presence of Reduce		ROOLS (C3)	Stunted or Stressed Plan	5 / (/
Algal Mat or Crust (B4)	Recent Iron Reduct		s (C6)	Geomorphic Position (D2	
☐ Iron Deposits (B5)	Thin Muck Surface			Shallow Aguitard (D3)	,
☐ Inundation Visible on Aerial Imagery (B7		` '		Microtopographic Relief ([D4)
☐ Sparsely Vegetated Concave Surface (B8		,		FAC-neutral Test (D5)	
Field Observations:					
	No Depth (inches):				
Water Table Present? Yes	No Depth (inches):				
Saturation Present? (includes capillary fringe) Yes	Depth (inches):		Wetland Hydrol	ogy Present? Yes	No ●
Describe Recorded Data (stream gauge, Remarks:	monitoring well, aerial photos	s, previous insp	ections), if available	2:	

VEGETATION - Use scientific names of plant

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1(A)
2	0_			
3				Total Number of Dominant Species Across All Strata: 3 (B)
4.				Species Across Air Strata.
5	-			Percent of dominant Species
				That Are OBL, FACW, or FAC: 33.3% (A/B)
6				Businelanas Index weekshaats
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cover	'	Total % Cover of: Multiply by:
1	0			OBL species 0 x 1 = 0
2				FACW species $0 \times 2 = 0$
				FAC species $\underline{20}$ x 3 = $\underline{60}$
3				FACU species $55 \times 4 = 220$
4				UPL species $\frac{5}{}$ x 5 = $\frac{25}{}$
5				Column Totals:80 (A)305 (B)
6				
7	0			Prevalence Index = $B/A = 3.813$
Herb Stratum (Plot size:)	0	= Total Cover		Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
1 Apocynum cannabinum		✓	FAC	Dominance Test is > 50%
2. Agrimonia pubescens	5		UPL	Prevalence Index is ≤3.0 ¹
3. Lotus corniculatus	15		FACU	
4. Festuca arundinacea	20	✓	FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Poa pratensis	20	✓	FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
6	0		-	
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree Meadaglants Oir (70 cm) an area in dispersion of
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12				breast height (BBH), regardless of height.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
	80	= Total Cover		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
	0			
3	0	П		Woody vine - All woody vines greater than 3.28 ft in
4				height.
	0	= Total Cover	'	
				Hydrophytic Vegetation
				Present? Yes No No
Remarks: (Include photo numbers here or on a separate sh	aat)			
Remarks. (Include photo numbers here of on a separate six	eet.)			

Sampling Point: upl-jbl20180702-04

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl20180702-04

Profile Description: (Describe to the dept	h needed to document the indicator or confirm the	absence of indicators.)
Depth Matrix	Redox Features	•
(inches) Color (moist) %	Color (moist) % Type 1 Loc2	Texture Remarks
0-16 10YR 4/2 100		Silty Clay Loam
¹ Type: C=Concentration. D=Depletion. RM=Re	duced Matrix, CS=Covered or Coated Sand Grains ² Locat	tion: PL=Pore Lining. M=Matrix
Hydric Soil Indicators:	·	
Histosol (A1)	Polyvalue Below Surface (S8) (LRR R,	Indicators for Problematic Hydric Soils: 3
Histic Epipedon (A2)	MLRA 149B)	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histic (A3)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	Coast Prairie Redox (A16) (LRR K, L, R)
Hydrogen Sulfide (A4)	Loamy Mucky Mineral (F1) LRR K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Stratified Layers (A5)	Loamy Gleyed Matrix (F2)	Dark Surface (S7) (LRR K, L, M)
Depleted Below Dark Surface (A11)	Depleted Matrix (F3)	Polyvalue Below Surface (S8) (LRR K, L)
Thick Dark Surface (A12)	Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)
	Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Muck Mineral (S1)	Redox Depressions (F8)	Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4)	_ , ,	Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5)		Red Parent Material (F21)
Stripped Matrix (S6)		Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B)		Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wet	land hydrology must be present, unless disturbed or proble	ematic.
Restrictive Layer (if observed):		
Type:		
Depth (inches):		Hydric Soil Present? Yes ○ No ●
. , , ,		
Remarks:		

Project/Site: Brownhelm-Beaver-Black River	City/County:	Lorain	Sampling	Date: 09-Jul-18
Applicant/Owner: FirstEnergy		State: OH	Sampling Point:	upl-jbl-070918-05
Investigator(s): JBL,AEH	Section, T	ownship, Range: S.		R. 18W
Landform (hillslope, terrace, etc.): Flat	Local relief (c	oncave, convex, none)	: none	Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R				Datum: NAD 83
	Lat.: 41.413703	Long.:	82.267306	_
Soil Map Unit Name: AIA			NWI classification:	N/A
Are climatic/hydrologic conditions on the site typical for the	is time of year? Ye	s ● No ○ (If n	o, explain in Remarks	•
Are Vegetation , Soil , or Hydrology	significantly disturbed?	Are "Normal Circu	ımstances" present?	Yes No
Are Vegetation , Soil , or Hydrology	naturally problematic?	(If needed, explain	in any answers in Ren	narks.)
Summary of Findings - Attach site map sl	nowing sampling	. , .	-	•
Hydrophytic Vegetation Present? Yes No				
Hydric Soil Present? Yes No		e Sampled Area n a Wetland? Ye	s O No 💿	
Wetland Hydrology Present? Yes No •	Withi	n a wedandr		
Remarks: (Explain alternative procedures here or in a se	navata vanavt \			
	at apply) Stained Leaves (B9) ic Fauna (B13)		ondarv Indicators (minimu Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16)	m of 2 reauired)
	Deposits (B15)		Dry Season Water Table	(C2)
☐ Water Marks (B1) ☐ Hydro	ogen Sulfide Odor (C1)		Crayfish Burrows (C8)	
Sediment Deposits (B2)	zed Rhizospheres along Living	Roots (C3)	Saturation Visible on Aer	al Imagery (C9)
	nce of Reduced Iron (C4)		Stunted or Stressed Plan	rs (D1)
l <u> </u>	nt Iron Reduction in Tilled Soi	ls (C6)	Geomorphic Position (D2)
	Muck Surface (C7)		Shallow Aquitard (D3)	
	(Explain in Remarks)		Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)	
Field Observations:				
	th (inches):			
Water Table Present? Yes No O Dep	th (inches):		v C	
Saturation Present? (includes capillary fringe) Yes No No Dep	th (inches):	Wetland Hydrology	y Present? Yes	No •
Describe Recorded Data (stream gauge, monitoring well, a	erial photos, previous insp	ections), if available:		
Remarks:				
Reflidiks.				

VEGETATION - Use scientific names of plant

(-1	Absolute			Dominance Test worksheet:
_Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: 0 (A)
2	0			
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Species Across Air Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				Boundary Valence delta de
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cove	•	Total % Cover of: Multiply by:
	0			OBL species x 1 =
1				FACW species $15 \times 2 = 30$
2				FAC species $0 \times 3 = 0$
3				FACU species $60 \times 4 = 240$
4				UPL species $35 \times 5 = 175$
5	0			· ·
6	0			Column Totals: 110 (A) 445 (B)
7	0			Prevalence Index = $B/A = 4.045$
(Diet cirry	0	= Total Cove	-	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Lotus corniculatus	45	✓	FACU	
2 Trifolium arvense	35	✓	UPL	Dominance Test is > 50%
3. Poa palustris	15		FACW	Prevalence Index is ≤3.0 ¹
4. Factoria amendinasan	-15		FACU	Morphological Adaptations ¹ (Provide supporting
5			-7.00	data in Remarks or on a separate sheet)
				Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9	0			Definitions of Vegetation Strata
10	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Continue to the Woods in India
		= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				greater than 6.20 ft (fift) tail
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
7.	0	= Total Cove	,	
		_ 10tal cove		
				Hydrophytic
				Vogetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate sho	eet.)			
	•			

Sampling Point: upl-jbl20180709-05

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl20180709-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth
(inches) Color (moist) % Color (moist) % Type 1 Loc2 Texture Remarks
0-18 10YR 3/1 90 10YR 4/6 10 C M Silty Clay
l I
¹ Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining. M=Matrix
History (A1)
MLRA 149B)
☐ Plack Histic (A2) ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) ☐ Coast Frame Reduct (A10) (LRR R, L, R)
Loamy Mucky Mineral (F1) LRR K, L)
Dark Surface (S7) (LRR K, L, M)
Depleted Matrix (F3) Depleted Matrix (F3) Depleted Matrix (F3)
☐ Thin Dark Surface (A12) ☐ Redox Dark Surface (F6)
Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Sailty Pick Piliferal (S1) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Sality Gleyeu Plattix (34) ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
☐ Stripped Matrix (S6) ☐ Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B) ☐ Other (Explain in Remarks)
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? Yes • No O
Depart (incres).
Remarks:

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain	Sampling Date: 09-Jul-18
Applicant/Owner: FirstEnergy	State: 0H	Sampling Point: upl-jbl-070918-06,07
Investigator(s): JBL,AEH	Section, Township, Range:	S. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Flat	Local relief (concave, convex, r	none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	41.409385 Lon 9	g.: -82.267578
Soil Map Unit Name: AIA		NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No	(If no, explain in Remarks.)
Are Vegetation , Soil , or Hydrology significant	tly disturbed? Are "Normal	Circumstances" present? Yes No
Are Vegetation , Soil , or Hydrology naturally		explain any answers in Remarks.)
Summary of Findings - Attach site map showing	,	
Hydrophytic Vegetation Present? Yes ○ No ●		
Hydric Soil Present? Yes No	Is the Sampled Area within a Wetland?	Yes O No •
Wetland Hydrology Present? Yes ○ No ●	within a wetland:	
Remarks: (Explain alternative procedures here or in a separate repo	ort.)	
Hydrology		
Wetland Hydrology Indicators:		Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1) Water-Stained Lea	` '	Drainage Patterns (B10)
High Water Table (A2) Aquatic Fauna (B1) Saturation (A2)		Moss Trim Lines (B16)
Saturation (A3) Marl Deposits (B1 Hydrogen Sulfide		Dry Season Water Table (C2)
The state of the s		Crayfish Burrows (C8)
	neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3) Presence of Reduction (B4)		Stunted or Stressed Plants (D1)
	ction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	: (C7)	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in	Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)		FAC-neutral Test (D5)
Field Observations:		
Surface Water Present? Yes No Depth (inches):		
Water Table Present? Yes No Depth (inches):	Wetland Hyd	rology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes No Depth (inches):		rology Present: 1000 NO 0
Describe Recorded Data (stream gauge, monitoring well, aerial photo	s, previous inspections), if availa	ble:
Remarks:		
inclidits.		

VEGETATION - Use scientific names of plant

Tree Stratum
1.
3.
3.
4.
5 0 Percent of dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B) 50.0% (A/B) 6 0 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species 0 x 1 = 0 Prevalence Index end of the species
6.
7.
Sapling/Shrub Stratum (Plot size:)
Sapling/Shrub Stratum
1.
FACW species 40 X 2 = 80
FAC species 15
FACU species 70
4
Column Totals: 125 (A) 405 (B)
Description
Herb Stratum (Plot size:
Herb Stratum (Plot size:) 1. Festuca arundinacea 2. Lotus corniculatus 3. Phalaris arundinacea 4. Juncus tenuis 5
1. Festuca arundinacea 2. Lotus corniculatus 3. Phalaris arundinacea 4. Juncus tenuis 5. 0
1. Festuca arundinacea 2. Lotus corniculatus 3. Phalaris arundinacea 4. Juncus tenuis 5
2. Lotus corniculatus 3. Phalaris arundinacea 4. Juncus tenuis 5.
3. Phalaris arundinacea 4. Juncus tenuis 5
4. Juncus tenuis 5.
5
6
7
be present, unless disturbed or problematic. Definitions of Vegetation Strata Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and
9
10
11
11
Caping/sittab = vvoody plants icss than 5 int. DBH and
Caping/sittab = vvoody plants icss than 5 int. DBH and
The state of the s
Woody Vine Stratum (Plot size:)
1 0 Herb - All herbaceous (non-woody) plants, regardless of
2 size, and woody plants less than 3.28 ft tall.
3 Woody vine - All woody vines greater than 3.28 ft in
4 0 height.
0 = Total Cover
Hydrophytic
Vagetation
Present? Yes No •
Remarks: (Include photo numbers here or on a separate sheet.)

Sampling Point: upl-jbl-20180709-06

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180709-06

Profile Desc	ription: (Desc	ribe to th	e depth	needed to	documen	t the indi	cator or o	onfirm the	absence of indi	cators.)		
Depth (inches)		latrix	0/-	Color		dox Featı		1002			Dom	arks
0-18	Color (m		%	10YR	(moist)	_ <u>%</u> 	Type ¹	Loc² M	Silty Clay		кет	агкѕ
0-16		5/2	70	TUTK	4/6				Silty Clay			
				-				-				
								-				
					-			-	-			
¹ Type: C=Con	centration. D=[Depletion.	RM=Redu	ced Matrix,	CS=Covere	ed or Coate	ed Sand Gr	ains ² Loca	tion: PL=Pore Lin	ing. M=Mat	rix	
Hydric Soil									Indicators	for Proble	matic Hydri	Soils: 3
Histosol				☐ Pol	yvalue Belo [,] RA 149B)	w Surface	(S8) (LRR	R,	2 cm Mu	ıck (A10) (L	RR K, L, MLR	A 149B)
	ipedon (A2)			_	n Dark Surf	ace (SQ) (IDD D MI	OA 1/10R)			(A16) (LRR k	
Black His				_	my Mucky I				5 cm Mu	icky Peat or	Peat (S3) (LI	RR K, L, R)
	n Sulfide (A4)				my Gleyed)	Dark Su	rface (S7) (LRR K, L, M)	
	Layers (A5)				oleted Matri)		Polyvalu	e Below Su	rface (S8) (LR	R K, L)
	Below Dark Sur)		lox Dark Su				Thin Da	rk Surface (59) (LRR K, I	_)
	rk Surface (A12)				oleted Dark		7)		Iron-Ma	nganese Ma	sses (F12) (L	RR K, L, R)
_ ′	uck Mineral (S1)				lox Depress		,,		Piedmor	nt Floodplair	n Soils (F19)	(MLRA 149B)
	eyed Matrix (S4))			.ox 2 op. coc	(. 0)			☐ Mesic Sp	oodic (TA6)	(MLRA 144A,	145, 149B)
Sandy Re										ent Material		
	Matrix (S6)	MIDA 14	IOD)						Very Sha	allow Dark S	Surface (TF12)
	face (S7) (LRR F									Explain in Re	emarks)	
³ Indicators o	f hydrophytic ve	egetation a	nd wetlar	nd hydrolog	y must be p	oresent, ur	nless distur	bed or probl	ematic.			
Restrictive L	ayer (if obser	ved):										
Type:												
Depth (inc	ches):								Hydric Soil P	resent?	Yes 🖲	No O
Remarks:												

Project/Site: Brownhelm-Beaver-Black Ri	iver	City/County:	Lorain	Sampling	Date: 09-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-070918-08
Investigator(s): JBL,AEH		Section, To	ownship, Range: S.	T. 6N	R. 19W
Landform (hillslope, terrace, etc.):	lillside	_	oncave, convex, nor	ne): none	Slope: 0.0 % / 0.0
Subregion (LRR or MLRA): LRR R	Lat.:	41.406233	Long.:	-82.267870	Datum: NAD 83
	Latin	41.400233			
Soil Map Unit Name: FuA				NWI classification:	N/A
Are climatic/hydrologic conditions on t	the site typical for this time of	_{year?} Ye	s • No 🔾 (1	f no, explain in Remarks	= -
Are Vegetation , Soil ,	or Hydrology significant	tly disturbed?	Are "Normal Ci	rcumstances" present?	Yes No
Are Vegetation, Soil,	or Hydrology naturally	problematic?	(If needed, ex	plain any answers in Ren	narks.)
Summary of Findings - Atta	ach site map showing	sampling p	oint locations	s, transects, impo	rtant features, et
7 7	Yes O No O				
Hydric Soil Present?	Yes ○ No •		e Sampled Area n a Wetland?	Yes O No 💿	
Wetland Hydrology Present?	Yes ○ No •				
Hydrology					
Wetland Hydrology Indicators:	was vivad valand all that anni.		<u>_S</u>	econdary Indicators (minimu	um of 2 reauired)
Primary Indicators (minimum of one Surface Water (A1)		(DO)	L	Surface Soil Cracks (B6) Drainage Patterns (B10)	
High Water Table (A2)	☐ Water-Stained Lea☐ Aquatic Fauna (B1	. ,		Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B1	-	Ī	Dry Season Water Table	(C2)
Water Marks (B1)	Hydrogen Sulfide	-		Crayfish Burrows (C8)	()
Sediment Deposits (B2)	Oxidized Rhizosph		Roots (C3)	Saturation Visible on Aer	ial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduc		, ,	Stunted or Stressed Plan	ts (D1)
Algal Mat or Crust (B4)	Recent Iron Reduc	ction in Tilled Soil	s (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5)	Thin Muck Surface	e (C7)		Shallow Aquitard (D3)	
Inundation Visible on Aerial Imagery (Otrici (Explain in i	Remarks)		Microtopographic Relief ([D4)
Sparsely Vegetated Concave Surface ([B8)		L	FAC-neutral Test (D5)	
Field Observations:					
Surface Water Present? Yes	No Depth (inches):				
Water Table Present? Yes	No Depth (inches):			- v (N - (a)
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):		Wetland Hydrol	ogy Present? Yes	No •
Describe Recorded Data (stream gaug Remarks:	je, monitoring well, aerial photo	s, previous insp	ections), if available	2:	

VEGETATION - Use scientific names of plant

(-1	Absolute		t Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC:1(A)
2				
3				Total Number of Dominant Species Across All Strata: 2 (B)
4				Species Across All Strata.
5				Percent of dominant Species
				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				Boundary Today well-back
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0	= Total Cov	/er	Total % Cover of: Multiply by:
1	0			OBL species <u>0</u> x 1 = <u>0</u>
				FACW species x 2 =
2				FAC species $15 \times 3 = 45$
3				FACU species $50 \times 4 = 200$
4				UPL species $0 \times 5 = 0$
5				· '
6	0			Column Totals: <u>65</u> (A) <u>245</u> (B)
7	0			Prevalence Index = $B/A = 3.769$
(Plot size:	0	= Total Cov	/er	Hydrophytic Vegetation Indicators:
_Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Solidago canadensis	45	✓	FACU	Dominance Test is > 50%
2. Apocynum cannabinum	15	✓	FAC	
3. Dipsacus fullonum	_ 5		FACU	Prevalence Index is ≤3.0 ¹
4 Rubus flagellaris	15		FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Leucanthemum vulgare	20		UPL	Problematic Hydrophytic Vegetation ¹ (Explain)
6				Problematic hydrophytic vegetation (Explain)
				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Jenning of Tegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11	0			breast height (DBH), regardless of height.
12	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(2)	100	= Total Cov	/er	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				, ,
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cov	/er	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate she	eet.)			
oxeye 20				
, and the second				

Sampling Point: upl-jbl-20180709-08

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180709-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)							
Depth	Matrix			lox Featur			_
(inches)	Color (moist)		Color (moist)	%	Type 1	Loc ²	Texture Remarks
0-18	10YR 4/2						Silty Clay Loam
				-			· · · · · · · · · · · · · · · · · · ·
				-			
							·
							·
				-			
-				-			v
¹ Type: C=Cond	centration. D=Depletio	n. RM=Reduc	ed Matrix, CS=Covere	d or Coated	Sand Grain	ns ² Locati	tion: PL=Pore Lining. M=Matrix
Hydric Soil 1	Indicators:						Indicators for Problematic Hydric Soils: 3
Histosol (A1)		Polyvalue Belov	v Surface (S	88) (LRR R,		2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epi	pedon (A2)		MLRA 149B)	(50) (11		4.400)	Coast Prairie Redox (A16) (LRR K, L, R)
Black Hist			Thin Dark Surfa			A 149B)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Sulfide (A4)		Loamy Mucky M		LRR K, L)		Dark Surface (S7) (LRR K, L, M)
	Layers (A5)		Loamy Gleyed I Depleted Matrix				Polyvalue Below Surface (S8) (LRR K, L)
	Below Dark Surface (A	11)	Redox Dark Sur				☐ Thin Dark Surface (S9) (LRR K, L)
	k Surface (A12)		Depleted Dark	. ,	`		☐ Iron-Manganese Masses (F12) (LRR K, L, R)
	ck Mineral (S1)		Redox Depressi)		Piedmont Floodplain Soils (F19) (MLRA 149B)
I —	eyed Matrix (S4)		Redox Depressi	0113 (1 0)			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Re							Red Parent Material (F21)
I —	Matrix (S6)						Very Shallow Dark Surface (TF12)
Dark Surf	ace (S7) (LRR R, MLRA	(149B)					Other (Explain in Remarks)
³ Indicators of	f hydrophytic vegetatio	n and wetland	l hydrology must be p	resent, unle	ess disturbe	ed or proble	ematic.
Restrictive L	ayer (if observed):						
Туре:							
Depth (inc	hes):						Hydric Soil Present? Yes ○ No ●
Remarks:							1

Project/Site: Brownhelm-Beaver-Black River	City/County: Lora	in Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: OH Sampling Point: upl-jbl-071018-05
Investigator(s): JBL,AEH	Section, Towns	hip, Range: S. T. 6N R. 19W
Landform (hillslope, terrace, etc.): Lowland		ve, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.: 41.404720	Long.: -82,2676638 Datum: NAD 83
Soil Map Unit Name: RdA		NWI classification: N/A
	al for this time of year? Yes	
Are Vegetation Soil Or an Hydrologic		Vec A No
Are Vegetation , Soil , or Hydrology		Are normal encumsuatees present:
Are Vegetation , Soil , or Hydrology		(If needed, explain any answers in Remarks.)
		t locations, transects, important features, etc
) • To the Sam	anled Aven
Tryanic Son Fresence	Is the Sam within a W	
Wetland Hydrology Present? Yes O No	, ⊙	
Hydrology		
Wetland Hydrology Indicators:		Cocondary Indicators (minimum of 2 magnized)
Primary Indicators (minimum of one required; chec	ck all that apply)	Secondary Indicators (minimum of 2 required) Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Leaves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B13)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B15)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide Odor (C1)	Crayfish Burrows (C8)
Sediment Deposits (B2)	Oxidized Rhizospheres along Living Roots	
Drift deposits (B3) Algal Mat or Crust (B4)	Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	Other (Explain in Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	_ Galer (Explain in Remaile)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Yes No No	Depth (inches):	
Water Table Present? Yes No •	Depth (inches):	
Saturation Present?	Depth (inches):	Vetland Hydrology Present? Yes ○ No •
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring		ns), if available:
Table 1888 1888 1888 Carasan gauge, membering	real, della proces, premode inspectio	
Remarks:		

VEGETATION - Use scientific names of plants

vegeration - use scientific names of pi	ants			Sampling Point: upl-jbl-071018-05
(0)	Absolute	Dominant	Illaicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 4 (B)
4				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	= Total Cove	r	Total % Cover of: Multiply by: OBL species 0 x 1 = 0
1	0			
2				FACW species <u>25</u> x 2 = <u>50</u>
3				FAC species $0 \times 3 = 0$
4	_			FACU species $70 \times 4 = 280$
5	0			UPL species $0 \times 5 = 0$
6	0			Column Totals: <u>95</u> (A) <u>330</u> (B)
7	0			Prevalence Index = B/A = 3.474
_Herb Stratum (Plot size:)	=	= Total Cove	r	Hydrophytic Vegetation Indicators:
Out the second the state	45		FACU	Rapid Test for Hydrophytic Vegetation
1 Solidago altissima	25	✓	FACU	☐ Dominance Test is > 50%
2. Andropogon virginicus		✓	FACU	Prevalence Index is ≤3.0 ¹
3. <u>Dichanthelium clandestinum</u>			FACW	☐ Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8 9				Definitions of Vegetation Strata
9 10				_
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
12				
		= Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)			-	greater than 3.20 ft (fift) tall
1. Rubus flagellaris	5	✓	FACU	Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	5 =	= Total Cove	r	
				Hydrophytic
				Vegetation No. 0
				Present? Yes ○ No ●
Remarks: (Include photo numbers here or on a separate s	heet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071018-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			lox Featur	es			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-5	10YR 3/3	100					Sandy Loam	
							-	
-								
¹ Type: C=Conc	centration. D=Deplet	ion. RM=Redu	ced Matrix, CS=Covered	d or Coated	Sand Grain	ıs ² Locati	on: PL=Pore Lining. M=Matrix	(
Hydric Soil I			, 60 6076161					
Histosol (A			Polyvalue Below	/ Surface (S	8) (IRR P		Indicators for Problem	
Histic Epip			MLRA 149B)	v Surrace (S	o) (Likit it,		2 cm Muck (A10) (LRI	
Black Histi			Thin Dark Surfa	ce (S9) (LR	R R, MLRA	149B)	Coast Prairie Redox (
	Sulfide (A4)		Loamy Mucky M	lineral (F1)	LRR K, L)			Peat (S3) (LRR K, L, R)
	Layers (A5)		Loamy Gleyed N	/latrix (F2)			Dark Surface (S7) (LF	
	Below Dark Surface (Δ11)	Depleted Matrix	(F3)			Polyvalue Below Surfa	
	Surface (A12)	(/(11)	Redox Dark Sur	face (F6)			Thin Dark Surface (S9	
	ck Mineral (S1)		Depleted Dark S	Surface (F7)				ses (F12) (LRR K, L, R)
	yed Matrix (S4)		Redox Depressi	ons (F8)				Soils (F19) (MLRA 149B)
Sandy Rec								MLRA 144A, 145, 149B)
Stripped M							Red Parent Material (
	ace (S7) (LRR R, MLF	2Δ 140R)					☐ Very Shallow Dark Su	
							Other (Explain in Rem	narks)
³ Indicators of	hydrophytic vegetat	ion and wetlar	nd hydrology must be p	resent, unle	ss disturbe	d or proble	matic.	
Restrictive La	ayer (if observed)	:						
Type: <u>ara</u>	avel							
Depth (inch	nes): <u>5</u>						Hydric Soil Present?	Yes ○ No •
Remarks:								

Project/Site: Brownhelm-Beaver-Black Rive	er	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: upl-jbl-071018-02
Investigator(s): JBL,AEH		Section, Township, Range:	s. T. 7N R. 18W
Landform (hillslope, terrace, etc.): Flat	·	Local relief (concave, convex, r	
Subregion (LRR or MLRA): LRR R	Lat.:	41.399001422 Long	Datum: NAD 83
Soil Map Unit Name: FuA			NWI classification: N/A
Are climatic/hydrologic conditions on th	e site typical for this time of y	vear? Yes No	(If no, explain in Remarks.)
			Circumstances" present? Yes No
			circumstances present.
		,	explain any answers in Remarks.)
		Sampling point locatio	ns, transects, important features, etc
, , , , , , , , , , , , , , , , , , ,	es O No O	Is the Sampled Area	
V.	es O No O	within a Wetland?	Yes ○ No •
Wetland Hydrology Present? Remarks: (Explain alternative procedu	es O No O		
Hydrology Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one red	guired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	ives (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B1	3)	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B1	5)	Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burrows (C8)
Sediment Deposits (B2)		eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3) ☐ Algal Mat or Crust (B4)	Presence of Reduc	ted Iron (C4) tion in Tilled Soils (C6)	Stunted or Stressed Plants (D1) Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface	,	Shallow Aguitard (D3)
Inundation Visible on Aerial Imagery (B7			Microtopographic Relief (D4)
☐ Sparsely Vegetated Concave Surface (B8		(critatio)	FAC-neutral Test (D5)
Field Observations:			
	No Depth (inches):		
Water Table Present? Yes O	No Depth (inches):		
Saturation Present? (includes capillary fringe) Yes O	No Depth (inches):	Wetland Hyd	rology Present? Yes O No 💿
Describe Recorded Data (stream gauge,	monitoring well, aerial photos	s, previous inspections), if availa	ble:
, , ,	, ,	., , , , ,	
Domarka			
Remarks:			

VEGETATION - Use scientific names of plants

VEGETATION - OSE Scientific fiames of p	Jianes			Sampling Point: upl-jbl-071018-02
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:
Tree Stratum			Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Total Number of Benjamb
3	0			Total Number of Dominant Species Across All Strata: 1 (B)
4				Species / taloss / taloutal
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	Total Cover		Total % Cover of: Multiply by:
1	0			OBL species
2		$\overline{\Box}$		FACW species $0 \times 2 = 0$
3		ī		FAC species x 3 =6
				FACU species $90 \times 4 = 360$
4				UPL species $8 \times 5 = 40$
5				·
6	0			Column Totals: 100 (A) 406 (B)
7	0			Prevalence Index = B/A = 4.060
(Plot size:	0 =	Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1 Ambrosia artemisiifolia	80	✓	FACU	
Daucus carota	8		UPL	Dominance Test is > 50%
3 Dipsacus fullonum		$\overline{\Box}$	FACU	Prevalence Index is ≤3.0 ¹
		П	FAC	☐ Morphological Adaptations ¹ (Provide supporting
				data in Remarks or on a separate sheet)
5. Allium cernuum			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
ô	0			
7	0			¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(2)	100 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)	-			
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Manda dina All wands wines greater than 2.20 ft in
J				Woody vine - All woody vines greater than 3.28 ft in height.
1				neight.
	=	Total Cover		
				Hydrophytic Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071018-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth		Matrix			edox Feat	ures		_			
(inches)	Color ((moist)	%	Color (moist)	%	Type 1	Loc ²	<u>Texture</u> <u>Remarks</u>			
0-10	10YR	3/2	98	10YR 3/3	2			Sandy Clay Loam			
10-16	10YR	3/2	96	10YR 3/3	4			Sandy Clay Loam			
								-			
		-									
					_						
								-V			
		-									
								· ·			
					_						
1 Type: C=Conc	entration. D	=Depletio	n. RM=Red	uced Matrix, CS=Cove	ed or Coat	ed Sand Grai	ns ² l ocat	tion: PL=Pore Lining. M=Matrix			
Hydric Soil I		_ cpictio			24 51 COUL	Jana Grai	Local				
Histosol (A				Polyvalue Bel	ow Surface	(58) (100 0		Indicators for Problematic Hydric Soils: ³			
	pedon (A2)			MLRA 149B)	JW Surface	(30) (LKK K)		2 cm Muck (A10) (LRR K, L, MLRA 149B)			
Black Histi				Thin Dark Sui	face (S9)	(LRR R, MLR	A 149B)	Coast Prairie Redox (A16) (LRR K, L, R)			
	Sulfide (A4)			Loamy Mucky	Mineral (F	1) LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
	Layers (A5)			Loamy Gleyed				Dark Surface (S7) (LRR K, L, M)			
	Below Dark :	Surface (A	11)	Depleted Mat				Polyvalue Below Surface (S8) (LRR K, L)			
	k Surface (A:		11)	Redox Dark S		1		Thin Dark Surface (S9) (LRR K, L)			
	ck Mineral (S			Depleted Dar				☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
	eyed Matrix (Redox Depres				Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Rec		3 1)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Stripped M								Red Parent Material (F21)			
	ace (S7) (LR	D D MIDA	1/0R)					☐ Very Shallow Dark Surface (TF12)			
								Other (Explain in Remarks)			
³ Indicators of	hydrophytic	vegetatio	n and wetla	and hydrology must be	present, u	nless disturb	ed or proble	ematic.			
Restrictive La	ayer (if obs	served):									
Туре:											
Depth (inch	hes):							Hydric Soil Present? Yes ○ No •			
Remarks:											
I											

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Sampling	Date: 10-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-071018-08
Investigator(s): JBL,AEH		Section, To	wnship, Range:	 s.	R. 19W
Landform (hillslope, terrace, etc.): Hillside		_	oncave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.391136	Long	· : -82.268069	Datum: NAD 83
Soil Map Unit Name: MtA				NWI classification:	N/A
Are climatic/hydrologic conditions on the site	typical for this time of	year? Yes	s • No O	— (If no, explain in Remarks.	.)
Are Vegetation , Soil , or Hyd	rology significant	tly disturbed?	Are "Normal	Circumstances" present?	Yes No
Are Vegetation , Soil , or Hyd	rology naturally i	problematic?		xplain any answers in Rem	narks.)
Summary of Findings - Attach s	· ·		• ,		•
Hydrophytic Vegetation Present? Yes					•
Hydric Soil Present? Yes			Sampled Area	Yes ○ No ●	
Wetland Hydrology Present?		Withir	n a Wetland?	165 0 110 0	
Remarks: (Explain alternative procedures h					
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one 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)	d; check all that apply) Water-Stained Lea Aquatic Fauna (B1 Marl Deposits (B1) Hydrogen Sulfide Oxidized Rhizosph Presence of Reduce Recent Iron Reduce Thin Muck Surface	Odor (C1) neres along Living ted Iron (C4) ction in Tilled Soils		Secondary Indicators (minimu Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table (Crayfish Burrows (C8) Saturation Visible on Aeri Stunted or Stressed Plant Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (I	(C2) al Imagery (C9) ss (D1)
Sparsely Vegetated Concave Surface (B8)				FAC-neutral Test (D5)	
Field Observations:					
Surface Water Present? Yes No					
Water Table Present? Yes No	Depth (inches):		Watland Hyde	ology Present? Yes	No •
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):		wedana nyai	ology Present: Tes ©	110 😊
Describe Recorded Data (stream gauge, mon	itoring well, aerial photo	s, previous insp	ections), if availal	ole:	
Remarks:					

VEGETATION - Use scientific names of plants

VEGETATION - OSE SCIENTIFIC Hames of p	Jianes			Sampling Point: upl-jbl-20180710-08
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
Tree Stratum			Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2	0			Total Number of Deminerat
3	0			Total Number of Dominant Species Across All Strata: 2 (B)
4				(5)
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	0 =	Total Cove	r	Total % Cover of: Multiply by:
				OBL species 0 x 1 = 0
1				FACW species5 x 2 =10
2	0			FAC species $0 \times 3 = 0$
3	0			
4				FACU species $95 \times 4 = 380$
5				UPL species $0 \times 5 = 0$
56				Column Totals: 100 (A) 390 (B)
_				
7				Prevalence Index = B/A = 3.900
Herb Stratum (Plot size:)	=	Total Cove	7	Hydrophytic Vegetation Indicators:
				Rapid Test for Hydrophytic Vegetation
1 Lotus corniculatus	35	✓	FACU	Dominance Test is > 50%
2. Poa pratensis	20	✓	FACU	Prevalence Index is ≤3.0 ¹
3 Taraxacum officinale	15		FACU	
Achillea millefolium	15		FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Symphyotrichum ericoides			FACU	1 —
C. Solidago canadonsis			FACU	Problematic Hydrophytic Vegetation ¹ (Explain)
7 Dishanthalium alandastinum				¹ Indicators of hydric soil and wetland hydrology must
7. Dichanthelium clandestinum			FACW	be present, unless disturbed or problematic.
8				Definitions of Venetation Charte
9				Definitions of Vegetation Strata
0	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2.				
		Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		Total Cove		greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
				size, and woody plants less than 3.28 ft tall.
2				
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	0 =	Total Cover	•	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Present? Yes V NO V
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180710-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matr			lox Feature	es				
(inches)	Color (moist	:) %	Color (moist)	%	Type ¹	Loc ²	Texture Remarks		
0-5	10YR 3/2	2 100					Sandy Clay Loam		
-			-						
							·		
¹ Type: C=Cond	centration. D=Depl	etion. RM=Redu	uced Matrix, CS=Covere	d or Coated	Sand Grain	ns ² Locati	ion: PL=Pore Lining. M=Matrix		
Hydric Soil I	indicators:						Indicators for Problematic Hydric Soils: 3		
Histosol (Polyvalue Belov	Surface (S	8) (LRR R.				
	pedon (A2)		MLRA 149B)				2 cm Muck (A10) (LRR K, L, MLRA 149B)		
Black Hist			Thin Dark Surfa	ce (S9) (LR	R R, MLRA	149B)	Coast Prairie Redox (A16) (LRR K, L, R)		
	Sulfide (A4)		Loamy Mucky M	lineral (F1) l	LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	Layers (A5)		Loamy Gleyed N	latrix (F2)			Dark Surface (S7) (LRR K, L, M)		
	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Polyvalue Below Surface (S8) (LRR K, L)		
	k Surface (A12)	, (, 111)	Redox Dark Sur	face (F6)			☐ Thin Dark Surface (S9) (LRR K, L)		
	ck Mineral (S1)		Depleted Dark	Surface (F7)			☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
			Redox Depressi				Piedmont Floodplain Soils (F19) (MLRA 149B)		
	eyed Matrix (S4)		•	. ,			Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Red							Red Parent Material (F21)		
Stripped N		D. 4.40D)					☐ Very Shallow Dark Surface (TF12)		
Dark Surfa	ace (S7) (LRR R, M	LRA 149B)					Other (Explain in Remarks)		
³ Indicators of	hydrophytic veget	ation and wetla	nd hydrology must be p	resent, unle	ss disturbe	d or proble	ematic.		
Restrictive La	ayer (if observed):							
Type: _rin		,-							
Depth (inch							Hydric Soil Present? Yes ○ No •		
Remarks:									

Project/Site: Brownhelm-Beaver-Black Ri	iver	City/County: Lorain	Sampling Date: 10-Jul-18
Applicant/Owner: FirstEnergy		State: OH	Sampling Point: upl-jbl-071018-07
Investigator(s): JBL,AEH		Section, Township, Range:	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): FI	lat	Local relief (concave, convex, r	
Subregion (LRR or MLRA): LRR R	Lat.:	41.392228 Lon	- NAD 03
Soil Map Unit Name: TyB			NWI classification: N/A
Are climatic/hydrologic conditions on	the site typical for this time of	vear? Yes No	(If no, explain in Remarks.)
			Circumstances" present? Yes No
		•	explain any answers in Remarks.)
		,	ns, transects, important features, etc
	Yes No •	pamping point rocatio	,
7 7	Yes O No O	Is the Sampled Area	Yes ○ No ●
	Yes O No O	within a Wetland?	res 🔾 INU 😌
Wetland Hydrology Present? Remarks: (Explain alternative proced			
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one	required; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	` '	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B1		☐ Moss Trim Lines (B16) ☐ Dry Season Water Table (C2)
Water Marks (B1)	Hydrogen Sulfide		Crayfish Burrows (C8)
Sediment Deposits (B2)		neres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
Drift deposits (B3)	Presence of Reduc		Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		ction in Tilled Soils (C6)	Geomorphic Position (D2)
☐ Iron Deposits (B5)	Thin Muck Surface	e (C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (Other (Explain in i	Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (.B8)		FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes	No • Depth (inches):		
Water Table Present? Yes	No Depth (inches):		rology Present? Yes O No •
Saturation Present? (includes capillary fringe) Yes	No Depth (inches):	Wetland Hyd	rology Present? Yes O No 🖲
Describe Recorded Data (stream gaug	je, monitoring well, aerial photo	s, previous inspections), if availa	ble:
Remarks:			

vegeration - ose scientific fiames of p	iaiits			Sampling Point: upl-jbl20180710-07
(5)	Absolute	Dominant	Illaicacoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3	0			Species Across All Strata:2(B)
4	0			
5	0			Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
		Total Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
1	0			FACW species $0 \times 2 = 0$
2	0			FAC species $10 \times 3 = 30$
3	0			
4				1
5				UPL species $0 \times 5 = 0$
6			-	Column Totals: 110 (A) 430 (B)
7				Prevalence Index = B/A = 3.909
		Total Cove	er	,
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1 Festuca arundinacea	45	✓	FACU	
2 Solidago canadensis	45		FACU	Dominance Test is > 50%
3. Achillea millefolium			FACU	Prevalence Index is ≤3.0 ¹
4. Apocynum cannabinum			FAC	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				
				Problematic Hydrophytic Vegetation ¹ (Explain)
6				¹ Indicators of hydric soil and wetland hydrology must
7				be present, unless disturbed or problematic.
8				Definitions of Vegetation Strata
9				Jenning of Cogetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2	0			Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	85=	Total Cove	er	greater than 3.28 ft (1m) tall
1 Rubus flagellaris	25	✓	FACU	Herb - All herbaceous (non-woody) plants, regardless of
			TACO	size, and woody plants less than 3.28 ft tall.
2				
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	25 =	Total Cove	er	
				Hodorabath.
				Hydrophytic Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate	sheet.)			
	•			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl20180710-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matrix			lox Features					
(inches)	Color (moist))%	Color (moist)	<u>%</u> <u>T</u>	ype ¹ Lo	OC ²	Texture Remarks		
0-10	10YR 3/3	100					Sandy Clay Loam		
-									
							,		
							· · · · · · · · · · · · · · · · · · ·		
¹ Type: C=Cond	centration. D=Deple	tion. RM=Redu	iced Matrix, CS=Covered	d or Coated Sa	nd Grains	² Location	on: PL=Pore Lining. M=Matrix		
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils: 3		
Histosol (A			Polyvalue Below	V Surface (S8)	(LRR R,				
	pedon (A2)		MLRA 149B)				2 cm Muck (A10) (LRR K, L, MLRA 149B)		
Black Histi			Thin Dark Surfa	ce (S9) (LRR	R, MLRA 149	B)	Coast Prairie Redox (A16) (LRR K, L, R)		
	Sulfide (A4)		Loamy Mucky M	lineral (F1) LRI	R K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L, R)		
	Layers (A5)		Loamy Gleyed N	Matrix (F2)			Dark Surface (S7) (LRR K, L, M)		
	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Polyvalue Below Surface (S8) (LRR K, L)		
	Surface (A12)	(/11)	Redox Dark Sur	face (F6)			☐ Thin Dark Surface (S9) (LRR K, L)		
	ck Mineral (S1)		Depleted Dark S	Surface (F7)			Iron-Manganese Masses (F12) (LRR K, L, R)		
			Redox Depressi				Piedmont Floodplain Soils (F19) (MLRA 149B)		
	yed Matrix (S4)		·				Mesic Spodic (TA6) (MLRA 144A, 145, 149B)		
Sandy Rec							Red Parent Material (F21)		
Stripped M		D 4 4 40 D)					Very Shallow Dark Surface (TF12)		
Dark Surfa	ace (S7) (LRR R, ML	RA 149B)					Other (Explain in Remarks)		
³ Indicators of	hydrophytic vegeta	tion and wetla	nd hydrology must be p	resent, unless	disturbed or	problem	natic.		
Restrictive La	ayer (if observed)):							
Type:	., (<i>-</i>							
Depth (inch	nes).						Hydric Soil Present? Yes ○ No ●		
Remarks:									

Project/Site: Brownhelm-Beaver-Black Riv	er	City/County	: Lorain	Sampling	Date: 10-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-071018-06
Investigator(s): JBL,AEH		Section,	Township, Range:	s. T. 6N	R. 18W
Landform (hillslope, terrace, etc.): Fla	 at		(concave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R		Lat.: 41.393251	Long	-82.264424	Datum: NAD 83
Soil Map Unit Name: Om				NWI classification:	
Are climatic/hydrologic conditions on t	he site typical for this	time of year?	res No	(If no, explain in Remarks)	.)
		gnificantly disturbed?		Circumstances" present?	Yes No
		iturally problematic?		explain any answers in Ren	aarks \
Summary of Findings - Atta				•	•
	res No O		pome location	is, cranisects, impo	rtant reatures, etc
' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' ' '	res No	Is t	he Sampled Area	Yes ○ No ●	
,	res O No 💿	wit	hin a Wetland?	Yes ∪ No ♥	
Wetland Hydrology Present? Remarks: (Explain alternative proced					
Wetland Hydrology Indicators: Primary Indicators (minimum of one reconstruction) Surface Water (A1) High Water Table (A2)	☐ Water-St	apply) cained Leaves (B9) Fauna (B13)		Secondary Indicators (minimu Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16)	ım of 2 required)
Saturation (A3)		osits (B15)		Dry Season Water Table	(C2)
Water Marks (B1)		n Sulfide Odor (C1)		Crayfish Burrows (C8)	(02)
Sediment Deposits (B2)		Rhizospheres along Livi	ng Roots (C3)	Saturation Visible on Aeri	al Imagery (C9)
Drift deposits (B3)	Presence	of Reduced Iron (C4)		Stunted or Stressed Plant	ts (D1)
☐ Algal Mat or Crust (B4)	Recent Ir	ron Reduction in Tilled S	oils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	27)	ck Surface (C7)		Shallow Aquitard (D3)	D.4)
Inundation Visible on Aerial Imagery (E Sparsely Vegetated Concave Surface (B		xplain in Remarks)		☐ Microtopographic Relief (☐ FAC-neutral Test (D5)	D4)
Sparsery regetated contains surface (E	0)			FAC-fledital Test (D3)	
Field Observations:					
Surface Water Present? Yes	_	(inches):	_		
Water Table Present? Yes	No Depth ((inches):	Wetland Hydr	ology Present? Yes	No •
Saturation Present? (includes capillary fringe) Yes	No O Depth ((inches):	— Wedana nyai	ology Present: 100 0	
Describe Recorded Data (stream gauge	, monitoring well, aeria	al photos, previous in	spections), if availal	ole:	
Remarks:					

vegeration - use scientific fiames of	piants			Sampling Point: upl-jbl20180710-06
(0)	Absolute	Dominant	Illaicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata: 3 (B)
4	0			
5	0			Percent of dominant Species That Are OBL FACW or FAC: 66.7% (A/B)
6				That Are OBL, FACW, or FAC: 66.7% (A/B)
7				Prevalence Index worksheet:
		= Total Cov	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 2 x 1 = 2
1	0			FACW species $30 \times 2 = 60$
2	0			FAC species 65 x 3 = 195
3				
4				FACU species $10 \times 4 = 40$
5				UPL species $0 \times 5 = 0$
6				Column Totals: 107 (A) 297 (B)
7				Prevalence Index = B/A = 2.776
		= Total Cov	er er	
Herb Stratum (Plot size:)			- '	Hydrophytic Vegetation Indicators:
1 Apocynum cannabinum	65	✓	FAC	Rapid Test for Hydrophytic Vegetation
2 Phalaris arundinacea		~	FACW	✓ Dominance Test is > 50%
			FACU	✓ Prevalence Index is ≤3.0 ¹
			OBL	Morphological Adaptations ¹ (Provide supporting
•			ODL	data in Remarks or on a separate sheet)
5				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				1 Tudiestore of hydric sail and watland hydrology must
7				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8				
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2	0			Sapling/shrub - Woody plants less than 3 in. DBH and
(5)	102 =	= Total Cov	er	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1. Rubus flagellaris	5	~	FACU	Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4				height.
	5 =	= Total Cov	er	
				Hydrophytic
				Vegetation Present? Yes No
				Tresent.
				<u>I</u>
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl20180710-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth		Matrix			_						
(inches)	Color	(moist)	%	Color (moist)	%	Type 1	Loc²	Texture Remarks			
0-3	10YR	3/1	95	10YR 5/6	5	С	М	Sandy Clay Loam			
3-18	10YR	6/1	90	10YR 5/6	10	С	М	Sandy Clay Loam			
		-					-				
¹ Type: C=Cond	centration. D	=Depletio	n. RM=Redi	uced Matrix, CS=Cov	ered or Coat	ed Sand Gra	ains ² Loca	ation: PL=Pore Lining. M=Matrix			
Hydric Soil I	ndicators:							Indicators for Problematic Hydric Soils: 3			
Histosol (A	A1)			Polyvalue Be		(S8) (LRR I	R,	2 cm Muck (A10) (LRR K, L, MLRA 149B)			
	pedon (A2)			MLRA 149B)				Coast Prairie Redox (A16) (LRR K, L, R)			
Black Histi	ic (A3)			Thin Dark Su	urface (S9)	(LRR R, MLF	RA 149B)				
	Sulfide (A4))		Loamy Muck	y Mineral (F	1) LRR K, L))	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)			
	Layers (A5)			Loamy Gleye	ed Matrix (F2	2)		Dark Surface (S7) (LRR K, L, M)			
	Below Dark	Surface (A	11)	✓ Depleted Ma	trix (F3)			Polyvalue Below Surface (S8) (LRR K, L)			
	k Surface (A		,	Redox Dark	Surface (F6))		Thin Dark Surface (S9) (LRR K, L)			
	ck Mineral (S			Depleted Da	rk Surface (I	F7)		☐ Iron-Manganese Masses (F12) (LRR K, L, R)			
	eyed Matrix (✓ Redox Depre	essions (F8)			Piedmont Floodplain Soils (F19) (MLRA 149B)			
Sandy Rec		31)						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)			
Stripped M								Red Parent Material (F21)			
	ace (S7) (LR	D D MIDA	1/0P)					Very Shallow Dark Surface (TF12)			
								Other (Explain in Remarks)			
³ Indicators of	hydrophytic	vegetatio	n and wetla	nd hydrology must b	e present, u	nless disturl	bed or probl	lematic.			
Restrictive La	ayer (if obs	served):									
Type:		_									
Depth (inch	hes):							Hydric Soil Present? Yes No			
Remarks:											

Project/Site: Brownhelm-Beaver-Black River	City/County: Lorain Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy	State: OH Sampling Point: upl-jbl-071118-01
Investigator(s): JBL,AEH	Section, Township, Range: S. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Hillside	Local relief (concave, convex, none): none Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R Lat.:	41.396572 Long.: -82.26115 Datum: NAD 83
Soil Map Unit Name: Qu	NWI classification: N/A
Are climatic/hydrologic conditions on the site typical for this time of	year? Yes No (If no, explain in Remarks.)
	ntly disturbed? Are "Normal Circumstances" present? Yes No No
	problematic? (If needed, explain any answers in Remarks.)
	sampling point locations, transects, important features, etc
Hydrophytic Vegetation Present? Yes No	
Hydric Soil Present? Yes ○ No •	Is the Sampled Area within a Wetland? Yes ○ No ●
Wetland Hydrology Present?	within a Wetland?
Remarks: (Explain alternative procedures here or in a separate repo	
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Saturation (A3) Marl Deposits (B1)	13) Moss Trim Lines (B16) 15) Dry Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide	
☐ Sediment Deposits (B2) ☐ Oxidized Rhizosph ☐ Drift deposits (B3) ☐ Presence of Reduction	heres along Living Roots (C3) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
	uction in Tilled Soils (C6) Geomorphic Position (D2)
☐ Iron Deposits (B5) ☐ Thin Muck Surface	
Inundation Visible on Aerial Imagery (B7) Other (Explain in	Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)	FAC-neutral Test (D5)
Field Observations: Surface Water Present? Water Table Present? Yes No Depth (inches): Saturation Present? (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photo	Wetland Hydrology Present? Yes ○ No ●
Remarks:	

vederation - ose scientific fiames of pr	iaiits			Sampling Point: upl-jbl-071118-01
(0)	Absolute	Dominant Species?	Illaicacoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: 4 (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata:6 (B)
4	0			
5	0			Percent of dominant Species That Are OBL FACW or FAC: 66.7% (A/B)
6				That Are OBL, FACW, or FAC: 66.7% (A/B)
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)		= Total Cove	r	Total % Cover of: Multiply by:
1 Rhamnus cathartica	30	✓	FAC	OBL species 0 x 1 = 0
2 Quercus alba	15	V	FACU	FACW species <u>65</u> x 2 = <u>130</u>
O Quaraus malustria	15	✓	FACW	FAC species $45 \times 3 = 135$
0.,			171011	FACU species $35 \times 4 = 140$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 145 (A) 405 (B)
6			-	
7				Prevalence Index = B/A = 2.793
Herb Stratum (Plot size:)	60 =	= Total Cove	r	Hydrophytic Vegetation Indicators:
	Ε0.		FACIAL	Rapid Test for Hydrophytic Vegetation
1. Dichanthelium clandestinum		~	FACW	✓ Dominance Test is > 50%
2. Solidago canadensis			FACU	✓ Prevalence Index is ≤3.0 ¹
3				Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				1
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9				Definitions of Vegetation Strata
0	0			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1	0			breast height (DBH), regardless of height.
2				Capling/abruh Waady plants loss than 2 in DDLL and
Woody Vine Stratum (Plot size:)	60 =	= Total Cove	r	Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
1 Rubus allegheniensis	10	✓	FACU	Herb - All herbaceous (non-woody) plants, regardless of
Toxicodendron radicans	15		FAC	size, and woody plants less than 3.28 ft tall.
	0			
3				Woody vine - All woody vines greater than 3.28 ft in height.
4				neignt.
	=	= Total Cove	r	
				Hadaahadia
				Hydrophytic Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate s	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071118-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)									
Depth	Matri			lox Featu					
(inches)	Color (moist)	%	Color (moist)	%	Type 1	Loc ²	Texture	Remarks	
0-15	10YR 3/3	100					Sandy Loam		
							1		
-									
							-		
				-					
¹ Type: C=Cond	centration. D=Deple	tion. RM=Redu	iced Matrix, CS=Covered	d or Coated	I Sand Grain	ns ² Locati	ion: PL=Pore Lining. M=Matri	X	
Hydric Soil I	ndicators:						Indicators for Problem	natic Hydric Soils · 3	
Histosol (A			Polyvalue Below	V Surface (S	58) (LRR R.				
	pedon (A2)		MLRA 149B)				2 cm Muck (A10) (LR		
Black Histi			Thin Dark Surfa	ce (S9) (L	RR R, MLRA	(149B)	Coast Prairie Redox (
	Sulfide (A4)		Loamy Mucky M	lineral (F1)	LRR K, L)			Peat (S3) (LRR K, L, R)	
	Layers (A5)		Loamy Gleyed N	/latrix (F2)			Dark Surface (S7) (LI		
	Below Dark Surface	(Δ11)	Depleted Matrix	(F3)			Polyvalue Below Surf		
	Surface (A12)	(AII)	Redox Dark Sur				Thin Dark Surface (St		
			Depleted Dark S)		Iron-Manganese Mas	ses (F12) (LRR K, L, R)	
	ck Mineral (S1)		Redox Depressi		,		Piedmont Floodplain	Soils (F19) (MLRA 149B)	
	yed Matrix (S4)			,				MLRA 144A, 145, 149B)	
Sandy Red							Red Parent Material (F21)	
Stripped M							Very Shallow Dark Su	ırface (TF12)	
Dark Surfa	ace (S7) (LRR R, ML	RA 149B)					Other (Explain in Rer	narks)	
³ Indicators of	hydrophytic vegeta	tion and wetla	nd hydrology must be p	resent, unle	ess disturbe	d or proble	matic.		
Restrictive La	ayer (if observed)	١:							
Type:	., (0200.100.)	,-							
Depth (inch	200):						Hydric Soil Present?	Yes ○ No ●	
	ies)						-		
Remarks:									

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Samp	ling Date: 11-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-071118-02
Investigator(s): JBL,AEH		Section, To	wnship, Range:	s. t. 6N	R. 18W
Landform (hillslope, terrace, etc.): Hillside	[Local relief (co	ncave, convex, n	one): none	Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.403874	Long	·· -82.250077	Datum: NAD 83
Soil Map Unit Name: TyC				NWI classification	: NAD 83
Are climatic/hydrologic conditions on the site ty	pical for this time of ye	ear? Yes	; ● No ○	— (If no, explain in Rema	rks.)
Are Vegetation , Soil , or Hydrole	ogy significantly	y disturbed?	Are "Normal	Circumstances" present	t? Yes ● No ○
Are Vegetation , Soil , or Hydrolo		roblematic?		xplain any answers in F	
Summary of Findings - Attach site	· ·		,		ŕ
Hydrophytic Vegetation Present? Yes	No •			.,	, , , , , , , , , , , , , , , , , , , ,
Hydric Soil Present? Yes	No •		Sampled Area	Yes ○ No ●	
Wetland Hydrology Present?	No •	Within	a Wetland?	165 0 110 0	
Remarks: (Explain alternative procedures here					
Hydrology Wetland Hydrology Indicators: Primary Indicators (minimum of one required; of the surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2)	check all that apply) Water-Stained Leav Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide O Oxidized Rhizosphe	3)))dor (C1)	Roots (C3)	Secondary Indicators (min Surface Soil Cracks (B Drainage Patterns (B16 Moss Trim Lines (B16 Dry Season Water Tal Crayfish Burrows (C8) Saturation Visible on	66) 1.0)) ble (C2)
Drift deposits (B3)	Presence of Reduce			Stunted or Stressed P	- ' ' '
Algal Mat or Crust (B4)	Recent Iron Reduct	tion in Tilled Soils	s (C6)	Geomorphic Position	` '
Iron Deposits (B5)	Thin Muck Surface ((C7)		Shallow Aquitard (D3	
☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8)	Other (Explain in Re	emarks)		Microtopographic Reli FAC-neutral Test (D5)	` '
Sparsery vegetated contaive surface (bb)				FAC-Heutral Test (D5))
Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Pescribe Recorded Data (stream gauge, monitor)	Depth (inches): Depth (inches): Depth (inches): ring well, aerial photos,	, previous inspe			s ○ No ④
Remarks:					

vegeration - use scientific names of pia	ants			Sampling Point: upl-jbl20180711-02
(0)	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1(A)
2				Total Number of Dominant
3	0			Species Across All Strata: 4 (B)
4	0			
5				Percent of dominant Species That Are OBL, FACW, or FAC:25.0% (A/B)
6				That are OBL, FACW, or FAC
7	0			Prevalence Index worksheet:
_Sapling/Shrub Stratum (Plot size:)	=	= Total Cove	r	Total % Cover of: Multiply by: OBL species 0 x 1 = 0
1 _. Juglans nigra	25	✓	FACU	
2				FACW species $45 \times 2 = 90$
3				FAC species $0 \times 3 = 0$
4	_			FACU species $95 \times 4 = 380$
5				UPL species $0 \times 5 = 0$
6				Column Totals: <u>140</u> (A) <u>470</u> (B)
7.				Prevalence Index = B/A = 3.357
		= Total Cove		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Impatiens capensis	45	✓	FACW	Dominance Test is > 50%
2. Solidago canadensis	40	✓	FACU	Prevalence Index is ≤ 3.0 ¹
3. Parthenocissus quinquefolia	15		FACU	
4	0			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				The Mandaglet Oir (70 and an air disperse of
11				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
				Street Height (BB11), regardless of Height.
12		 = Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- Total Cove	•	greater than 3.28 ft (1m) tall
1. Rubus flagellaris	15	✓	FACU	Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	15 =	= Total Cove	r	
				Hydrophytic Vegetation
				Present? Yes No No
Remarks: (Include photo numbers here or on a separate sh	eet.)			
remarks. (Include photo numbers here of on a separate sh	icciij			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl20180711-02

Profile Descr	iption: (Describe	to the depth	needed to document	the indic	ator or co	nfirm the a	absence of indicators.)	
Depth	Matrix			lox Featu				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10YR 3/3	100					Sandy Clay	
	-			-				
				-			-	
				-				
¹ Type: C=Cond	centration. D=Deplet	tion. RM=Redu	ced Matrix, CS=Covered	d or Coated	Sand Grain	ns ² Locati	ion: PL=Pore Lining. M=Matrix	
Hydric Soil I			,					tie Uvdvie Selle i 3
Histosol (Polyvalue Belov	/ Surface (9	58) (LRR R.		Indicators for Problema	
	pedon (A2)		MLRA 149B)		20) (2 ,		2 cm Muck (A10) (LRR	
Black Hist			Thin Dark Surfa	ce (S9) (L	RR R, MLRA	149B)	Coast Prairie Redox (A	
	Sulfide (A4)		Loamy Mucky M	lineral (F1)	LRR K, L)		5 cm Mucky Peat or Pe	
	Layers (A5)		Loamy Gleyed N	/latrix (F2)			Dark Surface (S7) (LRF	
	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Polyvalue Below Surface	
	k Surface (A12)	,	Redox Dark Sur	face (F6)			Thin Dark Surface (S9)	
	ck Mineral (S1)		Depleted Dark S	Surface (F7)		Iron-Manganese Masse	
	yed Matrix (S4)		Redox Depressi	ons (F8)				oils (F19) (MLRA 149B)
Sandy Red							Mesic Spodic (TA6) (MI	
	Matrix (S6)						Red Parent Material (F2	
	ace (S7) (LRR R, MLI	RA 149B)					Very Shallow Dark Surf	
							Other (Explain in Rema	arks)
Indicators of	hydrophytic vegeta	tion and wetlai	nd hydrology must be p	resent, unle	ess disturbe	d or proble	matic.	
Restrictive La	ayer (if observed)	:						
Type:								
Depth (incl	hes):						Hydric Soil Present?	res ○ No •
Remarks:								

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Samplin	g Date: 12-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-aeh-071218-01
Investigator(s): JBL,AEH		Section, To	wnship, Range:	 s.	R. 18W
Landform (hillslope, terrace, etc.): Flat		_	oncave, convex, n		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.408251	Long	-82.236427	Datum: NAD 38
Soil Map Unit Name: DSB				NWI classification:	N/A
Are climatic/hydrologic conditions on the si	e typical for this time of	vear? Yes	s No	— (If no, explain in Remarks	:)
		tly disturbed?		Circumstances" present?	Yes No
		problematic?		-	wayles \
- , - , .		-		explain any answers in Rem	•
Summary of Findings - Attach		Samping p	onit iocation	is, transects, impo	ortant reatures, etc
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes		Is the	Sampled Area		
Yes (_		a Wetland?	Yes ○ No ●	
Wetland Hydrology Present? Yes Remarks: (Explain alternative procedures					
Hydrology					
Wetland Hydrology Indicators:				Secondary Indicators (minim	um of 2 required)
Primary Indicators (minimum of one requir	ed; check all that apply)			Surface Soil Cracks (B6)	
Surface Water (A1)	Water-Stained Lea	aves (B9)		Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B	-		Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B1			Dry Season Water Table	(C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide		Dt- (C2)	Crayfish Burrows (C8)	ial Imagany (CO)
Drift deposits (B3)	Oxidized Rhizospr Presence of Redu	heres along Living	Roots (C3)	Saturation Visible on Aer Stunted or Stressed Plan	
Algal Mat or Crust (B4)		ction in Tilled Soils	s (C6)	Geomorphic Position (D2	
Iron Deposits (B5)	Thin Muck Surface		3 (60)	Shallow Aquitard (D3)	- 7
☐ Inundation Visible on Aerial Imagery (B7)	Other (Explain in			Microtopographic Relief	(D4)
Sparsely Vegetated Concave Surface (B8)	_ 、.	•		FAC-neutral Test (D5)	
Field Observations:					
Surface Water Present? Yes No	Depth (inches):				
Water Table Present? Yes O No	Depth (inches):				
Saturation Present? (includes capillary fringe) Yes No	Depth (inches):		Wetland Hydr	ology Present? Yes	○ No •
Describe Recorded Data (stream gauge, mo	nitoring well, aerial photo	s, previous insp	ections), if availal	ole:	
Remarks:					
Terrario.					

vederation - ose scientific fiames of p	iaiits			Sampling Point: upl-aeh-20180712-01
(-1 ·	Absolute	Dominant	Illaicatoi	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata: 3 (B)
4	0			
5	0			Percent of dominant Species That Are OBL_FACW_or_FAC: 66.7% (A/B)
6	0			That Are OBL, FACW, or FAC: 66.7% (A/B)
7				Prevalence Index worksheet:
		Total Cove	er	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species <u>10</u> x 1 = <u>10</u>
1				FACW species
2				FAC species 65 x 3 = 195
3				FACU species $25 \times 4 = 100$
4	0			UPL species $0 \times 5 = 0$
5	0			1
6	0			Column Totals: 100 (A) 305 (B)
7	0			Prevalence Index = $B/A = 3.050$
(Diet size)	0 =	Total Cove	er	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1 Apocynum cannabinum	15		FAC	✓ Dominance Test is > 50%
2. Solidago canadensis	20	✓	FACU	Prevalence Index is ≤3.0 ¹
3. Juncus effusus	10		OBL	
4. Verbena urticifolia	10		FAC	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Juncus tenuis	20	✓	FAC	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Cornus drummondii	15	✓	FAC	
7. Rubus flagellaris	10		FACU	¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10		$\overline{\Box}$		Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				,, 13. 13.
12		Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)		- Total Cove	a	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4				height.
Т.	0 =	Total Cove	er	
			-	
				Hydrophytic
				Vegetation Present? Yes No
				Present? Yes No O
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-aeh-20180712-01

Color Texture Remarks Color Texture Te	(Inches) Color (moist) 9% Color (moist) 9% Type 1 Loc2 Texture Remarks O-18 10YR 3/1 95 10YR 4/6 5 C M Stity Clay Loam Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2 Location: PL=Pore Lining. M=Matrix Public Color (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Stratified Layers (A5) Loarny (Beyed Matrix (F3) Depleted Below Dark Surface (S9) (LRR R, L) Thin Dark Surface (F7) Depleted Below Dark Surface (S9) (LRR R, L) Thin Dark Surface (F7) Polyvalue Below Surface (S9) (LRR R, L) Thin Dark Surface (S7) (LRR K, L) Thin Dark Surface (S7) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Polyvalue Below Surface (S9) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Polyvalue Below Surface (S9)	Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains Location: PL=Pore Lining. M=Matrix	ils: ³		
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pe: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ² Location: PL=Pore Lining, M=Matrix Addic Soil Indicators: Indicators for Problematic Hydric Soils: ³ Histoscol (A1) Polyvalue Below Surface (S8) (LRR R, Indicators for Problematic Hydric Soils: ³ 2 cm Muck (A10) (LRR K, L, MICRA 1498) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) 7 cm Mucky Peat or Peat (S3) (LRR K, L, R	ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix ydric Soil Indicators: Histosol (A1)	ype: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix ydric Soil Indicators: Histosol (A1)			
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Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Sail Brocont2	Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Dark Surface (S7) (LRR R, MLRA 149B) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. directive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Sandy Redox (S5) Red Parent Material (F21)			
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ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Strictive Layer (if observed): Type: Hydric Scil Bracont3 - No. (1)	ndicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? Yes No	Deads Confere (C7) (LDD D. MLDA 140D)			
Type:	Type: Hydric Soil Present? Yes No				
Type: Hudvie Seil Brecont3 Vec ()	Type:				
Hudrin Seil Drosent? Von A No	Depth (inches): Hydric Soil Present? Yes • No O	Type:			
		Hydric Sail Discourt? Voc 8 No.	\circ		
marks:					

Project/Site: Brownhelm-Beaver-Black	River		City/County:	Lorain	Samplin	ng Date: 12-Jul-18
Applicant/Owner: FirstEnergy				State: OF	Sampling Point:	upl-aeh-071218-02
Investigator(s): JBL,AEH			Section, To	wnship, Range:	s. t. 6N	R. 18W
Landform (hillslope, terrace, etc.):	Flat		_	oncave, convex, r		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R		Lat.:	41.408852	Long		Datum: NAD 83
Soil Map Unit Name: LCB					NWI classification:	N/A
Are climatic/hydrologic conditions or	the site ty	mical for this time of	vear? Yes	s No	(If no, explain in Remark	(c.)
Are Vegetation , Soil	, or Hydrol		tly disturbed?		Circumstances" present?	V (A) N (
Are Vegetation , Soil ,	, or Hydrol		problematic?		-	
Summary of Findings - At				,	explain any answers in Re	•
				onit iocatio	iis, transects, iiip	ortant reatures, etc
Hydrophytic Vegetation Present?	Yes ○ Yes ●	No ⊙ No ○	Is the	Sampled Area		
Hydric Soil Present?	Yes 🔾	No •		n a Wetland?	Yes ○ No •	
Wetland Hydrology Present? Remarks: (Explain alternative proc						
Hydrology						
Wetland Hydrology Indicators:					Secondary Indicators (minin	
Primary Indicators (minimum of one Surface Water (A1)	e required;		(DO)		Surface Soil Cracks (B6) Drainage Patterns (B10)	
High Water Table (A2)		Water-Stained Lea Aquatic Fauna (B1	. ,		Moss Trim Lines (B16))
Saturation (A3)		Marl Deposits (B1	-		Dry Season Water Table	e (C2)
☐ Water Marks (B1)		Hydrogen Sulfide	-		Crayfish Burrows (C8)	,
Sediment Deposits (B2)		Oxidized Rhizosph	neres along Living	Roots (C3)	Saturation Visible on Ae	erial Imagery (C9)
☐ Drift deposits (B3)		Presence of Reduc	ced Iron (C4)		Stunted or Stressed Pla	nts (D1)
☐ Algal Mat or Crust (B4)		Recent Iron Reduc		s (C6)	Geomorphic Position (D	02)
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imagery	(D7)	Thin Muck Surface	-		Shallow Aquitard (D3)	E (D4)
Sparsely Vegetated Concave Surface		Other (Explain in I	Remarks)		☐ Microtopographic Relief☐ FAC-neutral Test (D5)	(D4)
	(==)				TAC fication rest (23)	
Field Observations:						
Surface Water Present? Yes	_	Depth (inches):				
Water Table Present? Yes	No 💿	Depth (inches):		Wetland Hvdi	rology Present? Yes	○ No •
Saturation Present? (includes capillary fringe) Yes		Depth (inches):				
Describe Recorded Data (stream gau	ge, monito	ring well, aerial photo	s, previous insp	ections), if availa	ble:	
Remarks:						

vederation - ose scientific fiames of pr	iaiits			Sampling Point: upl-aeh20180712-02
	Absolute	Dominant	Indicator	Dominance Test worksheet:
	% Cover	Species?	Status	Number of Dominant Species
1	0			That are OBL, FACW, or FAC: (A)
2	0			Total Number of Dominant
3	0			Species Across All Strata: 1 (B)
4	0			
5				Percent of dominant Species That Are OBL FACW or FAC: 0.0% (A/B)
6				That Are OBL, FACW, or FAC: 0.0% (A/B)
7				Prevalence Index worksheet:
		= Total Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species $0 \times 1 = 0$
1				FACW species $10 \times 2 = 20$
2	0			FAC species $0 \times 3 = 0$
3	0			
4				
5	0			V Species
6				Column Totals: 105 (A) 400 (B)
7				Prevalence Index = $B/A = 3.810$
		= Total Cove	r	<u> </u>
Herb Stratum (Plot size:)				Hydrophytic Vegetation Indicators: Rapid Test for Hydrophytic Vegetation
1 Solidago canadensis	95	✓	FACU	
2. Impatiens capensis	10		FACW	Dominance Test is > 50%
3	0			Prevalence Index is ≤3.0 ¹
4	_			Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6				Explain)
7				¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
10				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
11				breast fleight (DBH), regardless of fleight.
12				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	105=	= Total Cove	r	greater than 3.28 ft (1m) tall
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0	\Box		size, and woody plants less than 3.28 ft tall.
3		$\overline{\Box}$		
4		$\overline{\Box}$		Woody vine - All woody vines greater than 3.28 ft in height.
4		= Total Cove		noight.
	=	= Total Cove	Г	
				Hydrophytic
				Vegetation
				Present? Yes No •
Remarks: (Include photo numbers here or on a separate s	heet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-aeh20180712-02

Profile Descr	iption: (Describe	to the depth	needed to documer	t the ind	icator or c	onfirm the	absence of indicators.)	
Depth	Matrix			dox Feat	tures			_
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹		Texture	Remarks
0-18	10YR 3/1	95	10YR 7/6	5	C	М	Silty Clay	
					_			
							-	
							P	
	-							
¹ Type: C=Cond	centration. D=Deplet	tion. RM=Redu	ced Matrix, CS=Cover	ed or Coat	ed Sand Gra	nins ² Locat	tion: PL=Pore Lining. M=Matr	ix
Hydric Soil I			,					
Histosol (Polyvalue Belo	w Surface	(S8) (LRR F	₹.	Indicators for Problem	
	pedon (A2)		MLRA 149B)		(00) (2	4	2 cm Muck (A10) (LF	
Black Hist			Thin Dark Sur	face (S9)	(LRR R, MLF	RA 149B)	Coast Prairie Redox	
	Sulfide (A4)		Loamy Mucky	Mineral (F	1) LRR K, L)			Peat (S3) (LRR K, L, R)
	Layers (A5)		Loamy Gleyed	Matrix (F2	2)		Dark Surface (S7) (L	
	Below Dark Surface	(A11)	Depleted Matr	ix (F3)			Polyvalue Below Sur	
	k Surface (A12)	,	✓ Redox Dark St	urface (F6))		Thin Dark Surface (S	
	ck Mineral (S1)		Depleted Dark	Surface (I	F7)			sses (F12) (LRR K, L, R)
	yed Matrix (S4)		✓ Redox Depres	sions (F8)				Soils (F19) (MLRA 149B)
Sandy Red								(MLRA 144A, 145, 149B)
	Matrix (S6)						Red Parent Material	
	ace (S7) (LRR R, MLF	RA 149B)					Very Shallow Dark S	
							Other (Explain in Re	marks)
Indicators of	hydrophytic vegetal	tion and wetlai	nd hydrology must be	present, u	nless disturt	oed or proble	ematic.	
Restrictive La	ayer (if observed)	:						
Type:							Hardala Call Donas and 2	y
Depth (incl	hes):						Hydric Soil Present?	Yes No
Remarks:								
I								
I								

Project/Site: Brownhelm-Beaver-Black River		City/County: Lorain	Sampling Date: 12-Jul-18
Applicant/Owner: FirstEnergy		State: Oh	Sampling Point: upl-aeh-071218-03
Investigator(s): JBL,AEH		Section, Township, Range:	s. T. 6N R. 18W
Landform (hillslope, terrace, etc.): Hills	ide	Local relief (concave, convex, i	
Subregion (LRR or MLRA): LRR R	Lat.:	41.410935 Lon	g.: -82.229059
Soil Map Unit Name: LCB			NWI classification: N/A
Are climatic/hydrologic conditions on the	site tynical for this time of y	rear? Yes No	(If no, explain in Remarks.)
			Circumstances" present? Yes No
			refreamstances present:
		,	explain any answers in Remarks.)
	<u> </u>	sampling point locatio	ns, transects, important features, etc
, , , , , , , , , , , , , , , , , , , ,	s O No O	Is the Sampled Area	
,	s O No O	within a Wetland?	Yes ○ No •
Wetland Hydrology Present? Ye Remarks: (Explain alternative procedure)	s O No 💿		
Hydrology			
Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one red	uired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	, ,	Drainage Patterns (B10)
High Water Table (A2) Saturation (A3)	Aquatic Fauna (B1:		Moss Trim Lines (B16)
Water Marks (B1)	☐ Marl Deposits (B15☐ Hydrogen Sulfide C		☐ Dry Season Water Table (C2) ☐ Crayfish Burrows (C8)
Sediment Deposits (B2)		eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)
☐ Drift deposits (B3)	Presence of Reduc		Stunted or Stressed Plants (D1)
☐ Algal Mat or Crust (B4)		tion in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface	(C7)	Shallow Aquitard (D3)
Inundation Visible on Aerial Imagery (B7)	out a (Explain in)	Remarks)	Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8)			FAC-neutral Test (D5)
Field Observations:			
Surface Water Present? Yes O	Depth (inches):		
Water Table Present? Yes O	Depth (inches):		
Saturation Present? (includes capillary fringe) Yes O	Depth (inches):	Wetland Hyd	rology Present? Yes O No 💿
Describe Recorded Data (stream gauge,	monitoring well, aerial photos	s, previous inspections), if availa	ble:
Remarks:			

VEGETATION - OSE SCIENTIFIC Hames of p	piaries			Sampling Point: upl-aeh-20180712-03
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
				Number of Dominant Species
1 . Pinus strobus	45	✓	FACU	That are OBL, FACW, or FAC:3 (A)
2. Acer rubrum	35	✓	FAC	Tatal Number of Densirent
3	0			Total Number of Dominant Species Across All Strata: 6 (B)
4				(5)
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 50.0% (A/B)
6				
7				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	= 80	= Total Cove	r	Total % Cover of: Multiply by:
1 Fraxinus pennsylvanica	15	✓	FACW	OBL species $0 \times 1 = 0$
2				FACW species $\underline{25}$ x 2 = $\underline{50}$
				FAC species 35 x 3 = 105
3				FACU species $55 \times 4 = 220$
4				UPL species $0 \times 5 = 0$
5	0			'
6	0			Column Totals: <u>115</u> (A) <u>375</u> (B)
7				Prevalence Index = B/A = 3.261
(Plot size:	15=	= Total Cove	r	Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1. Fraxinus pennsylvanica	10	✓	FACW	Dominance Test is > 50%
2 Parthenocissus quinquefolia	5	✓	FACU	
3. Rubus flagellaris	5	✓	FACU	Prevalence Index is ≤3.0 ¹
				Morphological Adaptations ¹ (Provide supporting
4				data in Remarks or on a separate sheet)
5				☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6				
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9				Definitions of Vegetation Strata
0				Tree Mediumberto 2 in (7.0 and) an arrana in diameter at
				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
1				breast neight (DDF1), regardless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
Woody Vine Stratum (Plot size:)	=	= Total Cove	r	greater than 3.28 ft (1m) tall
	0			Hade All back as a second constant and a lands are second as a
1				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
2				size, and woody plants less than 5.26 it tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0 =	= Total Cove	r	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Present? Yes V NO V
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-aeh-20180712-03

Profile Descr	iption: (Describe	to the depth	needed to document	the indic	ator or co	nfirm the a	absence of indicators.)	
Depth	Matrix			lox Featui	res		-	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-2	10YR 3/3	100					Silty Clay Loam	
-								
				-				
¹ Type: C=Cond	centration. D=Deple	tion. RM=Redu	iced Matrix, CS=Covered	d or Coated	I Sand Grain	ns ² Locati	tion: PL=Pore Lining. M=Matrix	
Hydric Soil I	ndicators:						Indicators for Problematic Hydric Soils:	3
Histosol (A1)		Polyvalue Below	Surface (S	58) (LRR R,			
	pedon (A2)		MLRA 149B)				2 cm Muck (A10) (LRR K, L, MLRA 149B)	
☐ Black Hist			Thin Dark Surfa	ce (S9) (LI	RR R, MLRA	A 149B)	Coast Prairie Redox (A16) (LRR K, L, R)	D)
	Sulfide (A4)		Loamy Mucky M	lineral (F1)	LRR K, L)		5 cm Mucky Peat or Peat (S3) (LRR K, L,	K)
	Layers (A5)		Loamy Gleyed N	/latrix (F2)			Dark Surface (S7) (LRR K, L, M)	
	Below Dark Surface	(A11)	Depleted Matrix	(F3)			Polyvalue Below Surface (S8) (LRR K, L)	
	k Surface (A12)	()	Redox Dark Sur	face (F6)			☐ Thin Dark Surface (S9) (LRR K, L)	
	ck Mineral (S1)		Depleted Dark S	Surface (F7)		☐ Iron-Manganese Masses (F12) (LRR K, L,	
	eyed Matrix (S4)		Redox Depressi	ons (F8)			Piedmont Floodplain Soils (F19) (MLRA 1	
Sandy Rec							Mesic Spodic (TA6) (MLRA 144A, 145, 14	9B)
							Red Parent Material (F21)	
Stripped N		DA 140D)					Very Shallow Dark Surface (TF12)	
	ace (S7) (LRR R, ML						Other (Explain in Remarks)	
³ Indicators of	hydrophytic vegeta	tion and wetlar	nd hydrology must be p	resent, unle	ess disturbe	ed or proble	ematic.	
Restrictive La	ayer (if observed)):						
Type: <u>rin</u>								
Depth (inch							Hydric Soil Present? Yes No)
	100)							
Remarks:								

Project/Site: Brownhelm-Beaver-Black F	River		City/County:	Lorain	Sampli	ing Date: 11-Jul-18
Applicant/Owner: FirstEnergy				State: OF	Sampling Point:	upl-jbl-071118-04
Investigator(s): JBL,AEH			Section, To	ownship, Range:	s. T. 6N	R. 18W
Landform (hillslope, terrace, etc.):	 Flat		_	oncave, convex, r		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R		Lat.:	41.412658	Long		Datum: NAD 83
Soil Map Unit Name: MKA					NWI classification:	N/A
Are climatic/hydrologic conditions on	the site ty	mical for this time of	vear? Ye	s No	(If no, explain in Remar	ke)
	, or Hydrol		tly disturbed?		Circumstances" present	Yes (a) No (
			•		·	•
	, or Hydrol		problematic?		explain any answers in R	•
Summary of Findings - Att			sampling p	oint locatio	ns, transects, imp	ortant reatures, etc
Hydrophytic Vegetation Present?	Yes 🔾	No •	Ts the	Sampled Area		
Hydric Soil Present?	Yes •	No O		n a Wetland?	Yes O No 💿	
Wetland Hydrology Present? Remarks: (Explain alternative processing)	Yes O	No 💿				
Hydrology						
Wetland Hydrology Indicators:					Secondary Indicators (mini	mum of 2 required)
Primary Indicators (minimum of one Surface Water (A1)	required;		(00)		Surface Soil Cracks (B6	
High Water Table (A2)		Water-Stained Lea Aquatic Fauna (B1	` '		Drainage Patterns (B10 Moss Trim Lines (B16)	
Saturation (A3)		Marl Deposits (B1	-		Dry Season Water Tab	
☐ Water Marks (B1)		Hydrogen Sulfide	· ·		Crayfish Burrows (C8)	
Sediment Deposits (B2)		Oxidized Rhizosph	neres along Living	Roots (C3)	Saturation Visible on A	erial Imagery (C9)
☐ Drift deposits (B3)		Presence of Reduc	ced Iron (C4)		Stunted or Stressed Plan	ants (D1)
☐ Algal Mat or Crust (B4)		Recent Iron Reduc		s (C6)	Geomorphic Position (·
☐ Iron Deposits (B5)☐ Inundation Visible on Aerial Imagery	(R7)	Thin Muck Surface	-		Shallow Aquitard (D3)Microtopographic Relie	
Sparsely Vegetated Concave Surface		Other (Explain in I	Remarks)		FAC-neutral Test (D5)	er (D4)
	,					
Field Observations:	No 🔞					
Surface Water Present? Yes	_	Depth (inches):				
Water Table Present? Yes	No 💿	Depth (inches):		Wetland Hvdi	rology Present? Yes	○ No ●
Saturation Present? (includes capillary fringe) Yes	No 💿	Depth (inches):				
Describe Recorded Data (stream gau	ge, monito	ring well, aerial photo	s, previous insp	ections), if availa	ble:	
Remarks:						

VEGETATION - OSE SCIENTIFIC Hames of	Jianes			Sampling Point: upl-jbl-20180711-04
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
				Number of Dominant Species
1. Acer rubrum		✓	FAC	That are OBL, FACW, or FAC:1 (A)
2	0			Total Monday of Bossisson
3	0			Total Number of Dominant Species Across All Strata: 3 (B)
4				5)
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 33.3% (A/B)
6				<u> </u>
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	10=	= Total Cove	r	Total % Cover of: Multiply by:
1	0			OBL species
2				FACW species $\underline{5}$ x 2 = $\underline{10}$
				FAC species x 3 =30
3				FACU species $95 \times 4 = 380$
4				UPL species $0 \times 5 = 0$
5	0			X 5
6	0			Column Totals: <u>110</u> (A) <u>420</u> (B)
7	_			Prevalence Index = B/A = 3.818
Herb Stratum (Plot size:)		= Total Cove	r	Hydrophytic Vegetation Indicators:
	-			Rapid Test for Hydrophytic Vegetation
1. Poa pratensis	60	✓	FACU	
2 Festuca arundinacea	35	✓	FACU	Dominance Test is > 50%
3 Carex annectens			FACW	Prevalence Index is ≤3.0 ¹
		\Box		Morphological Adaptations ¹ (Provide supporting
1				data in Remarks or on a separate sheet)
5				Problematic Hydrophytic Vegetation ¹ (Explain)
6	0			
7	0			¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
	100 =	= Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				g. care. a.e c.=c ()
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3				
J		\Box		Woody vine - All woody vines greater than 3.28 ft in
4				height.
	=	= Total Cove	r	
				Hydrophytic
				Vegetation
				Present? Yes No No
Remarks: (Include photo numbers here or on a separate	sheet \	-		
Remarks. (Include photo humbers here of on a separate	sileet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180711-04

Profile Descr	iption: (Describe t	to the depth	needed to documen	t the indi	icator or c	onfirm the	absence of indicators.)		
Depth	Matrix			dox Feat	ures		_		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-18	10YR 3/1	95	10YR 5/6	5	C	M	Silty Clay Loam		
-			-						
	-		-						
		tion. RM=Redu	iced Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins ² Locat	tion: PL=Pore Lining. M=Matrix		
Hydric Soil I	ndicators:		_				Indicators for Problema	tic Hydric Soils: 3	
Histosol (A1)		Polyvalue Belo	w Surface	(S8) (LRR F	Ρ,	2 cm Muck (A10) (LRR		
Histic Epip	oedon (A2)		MLRA 149B)				Coast Prairie Redox (A		
☐ Black Hist	ic (A3)		Thin Dark Surf				5 cm Mucky Peat or Pe		
Hydrogen	Sulfide (A4)		Loamy Mucky I				Dark Surface (S7) (LRF		
Stratified	Layers (A5)		Loamy Gleyed		2)		Polyvalue Below Surface		
Depleted I	Below Dark Surface ((A11)	Depleted Matri				Thin Dark Surface (S9)		
Thick Dark	k Surface (A12)		Redox Dark Su				☐ Iron-Manganese Masses (F12) (LRR K, L, R)		
Sandy Mu	ck Mineral (S1)		Depleted Dark		- 7)		Piedmont Floodplain Soils (F19) (MLRA 149B)		
Sandy Gle	yed Matrix (S4)		✓ Redox Depress	sions (F8)			Mesic Spodic (TA6) (M		
Sandy Red	dox (S5)						Red Parent Material (F.		
Stripped N							Very Shallow Dark Surf		
	ace (S7) (LRR R, MLF	RA 149B)					Other (Explain in Rema		
								irks)	
Indicators of	nydropnytic vegetat	tion and wetial	nd hydrology must be i	oresent, ui	niess disturi	ea or proble	ematic.		
Restrictive La	ayer (if observed)	:							
Type:									
Depth (inch	hes):						Hydric Soil Present?	res ● No O	
Remarks:									

Project/Site: Brownhelm-Beaver-Black Rive	er	City/County: Lorain	Sampling Date: 11-Jul-18
Applicant/Owner: FirstEnergy		State: 0	H Sampling Point: upl-jbl-071118-03
Investigator(s): JBL,AEH		Section, Township, Range:	s. t. 6N R. 18W
Landform (hillslope, terrace, etc.): Flat		Local relief (concave, convex,	
Subregion (LRR or MLRA): LRR R	Lat.:	41.413465 Lon	g.: -82.224350 Datum: NAD 83
Soil Map Unit Name: MKA			NWI classification: N/A
Are climatic/hydrologic conditions on th	e site typical for this time of y	vear? Yes No	(If no, explain in Remarks.)
., _			I Circumstances" present? Yes No
			•
		,	explain any answers in Remarks.) ons, transects, important features, etc
		sampling point locatio	ons, transects, important reatures, etc
, , , , , , , , , , , , , , , , , , , ,	es O No O es O No O	Is the Sampled Area	
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	es O No O es O No O	within a Wetland?	Yes ○ No ●
Wetland Hydrology Present? Remarks: (Explain alternative procedu			
Hydrology Wetland Hydrology Indicators:			Secondary Indicators (minimum of 2 required)
Primary Indicators (minimum of one re	quired; check all that apply)		Surface Soil Cracks (B6)
Surface Water (A1)	Water-Stained Lea	ves (B9)	Drainage Patterns (B10)
High Water Table (A2)	Aquatic Fauna (B1	·	Moss Trim Lines (B16)
Saturation (A3)	Marl Deposits (B1		Dry Season Water Table (C2)
Water Marks (B1) Sediment Deposits (B2)	Hydrogen Sulfide (Crayfish Burrows (C8)
Drift deposits (B3)	Oxidized Rhizosph Presence of Reduc	eres along Living Roots (C3)	Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4)		tion in Tilled Soils (C6)	Geomorphic Position (D2)
Iron Deposits (B5)	Thin Muck Surface	,	Shallow Aquitard (D3)
☐ Inundation Visible on Aerial Imagery (B7			Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8	3)	,	FAC-neutral Test (D5)
Field Observations:			
	No Depth (inches):		
Water Table Present? Yes	No Depth (inches):		
Saturation Present? (includes capillary fringe) Yes O	No Depth (inches):	Wetland Hyd	Irology Present? Yes ○ No •
Describe Recorded Data (stream gauge,	monitoring well, aerial photos	s, previous inspections), if availa	able:
Remarks:			
Remarks.			

VEGETATION - OSE SCIENTIFIC Harries Of p	Jianes			Sampling Point: upl-jbl-20180711-03
Tree Stratum (Plot size:)	Absolute % Cover		Indicator Status	Dominance Test worksheet:
Tree Stratum			Status	Number of Dominant Species
1				That are OBL, FACW, or FAC: (A)
2	0			Tatal Number of Densirous
3	0			Total Number of Dominant Species Across All Strata: 2 (B)
4				(5)
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 0.0% (A/B)
6				
7	0			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size:)	=	Total Cover		Total % Cover of: Multiply by:
1	0			OBL species $10 \times 1 = 10$
2				FACW species x 2 =
				FAC species $5 \times 3 = 15$
3				FACU species $75 \times 4 = 300$
4				UPL species $0 \times 5 = 0$
5	0			I
6	0			Column Totals: 90 (A) 325 (B)
7	0			Prevalence Index = B/A = 3.611
(Diot size)	0 =	Total Cover		Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size:)				Rapid Test for Hydrophytic Vegetation
1 Erigeron annuus	35	✓	FACU	
7 Trifolium repens	35	✓	FACU	Dominance Test is > 50%
3 Juncus tenuis		$\overline{\Box}$	FAC	Prevalence Index is ≤3.0 ¹
		П	OBL	Morphological Adaptations ¹ (Provide supporting
4. Eleocharis palustris				data in Remarks or on a separate sheet)
5. Achillea millefolium			FACU	☐ Problematic Hydrophytic Vegetation ¹ (Explain)
6. Juncus effusus			OBL	
7	0			¹ Indicators of hydric soil and wetland hydrology must
8				be present, unless disturbed or problematic.
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1		Ц		breast height (DBH), regardless of height.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
(Dist size	90 =	Total Cover		greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
Λ	0		-	height.
Т.	0 =	Total Cover		
	=	Total Cover		
				Hydrophytic Vegetation
				Present? Yes No •
				1
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180711-03

Profile Descri	iption: (Describe t	o the depth i	needed to document	the indicato	r or confirm	n the absence of indicators.)
Depth	Matrix			ox Features	4	
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	/pe 1 Loc	
0-18	10YR 3/1	100				Silty Clay Loam
						
			-			
¹ Type: C=Conc	centration. D=Depleti	on. RM=Redu	ced Matrix, CS=Covered	d or Coated Sa	nd Grains 2	² Location: PL=Pore Lining. M=Matrix
Hydric Soil I			,			
Histosol (A			Polyvalue Belov	Surface (SR)	(IRR R	Indicators for Problematic Hydric Soils: 3
	pedon (A2)		MLRA 149B)	Surface (50)	(LIXIX IX,	2 cm Muck (A10) (LRR K, L, MLRA 149B)
Black Histi			Thin Dark Surfa	ce (S9) (LRR I	R, MLRA 149B	
	Sulfide (A4)		Loamy Mucky M	ineral (F1) LRF	R K, L)	5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
	Layers (A5)		Loamy Gleyed N	1atrix (F2)		Dark Surface (S7) (LRR K, L, M)
	Below Dark Surface (Δ11)	Depleted Matrix	(F3)		Polyvalue Below Surface (S8) (LRR K, L)
	k Surface (A12)	(11)	Redox Dark Sur	face (F6)		☐ Thin Dark Surface (S9) (LRR K, L)
	ck Mineral (S1)		Depleted Dark S	Surface (F7)		Iron-Manganese Masses (F12) (LRR K, L, R)
	yed Matrix (S4)		Redox Depressi	ons (F8)		Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Red						Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Stripped M						Red Parent Material (F21)
	ace (S7) (LRR R, MLR	Δ 149R)				☐ Very Shallow Dark Surface (TF12)
						Uther (Explain in Remarks)
³ Indicators of	hydrophytic vegetati	on and wetlan	d hydrology must be p	resent, unless	disturbed or p	problematic.
Restrictive La	ayer (if observed):					
Туре:						
Depth (inch	nes):					Hydric Soil Present? Yes ○ No ●
Remarks:						
remario						

Project/Site: Brownhelm-Beaver-Black River		City/County:	Lorain	Samplin	g Date: 11-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-071118-05
Investigator(s): JBL,AEH		Section, To	wnship, Range: S	 Б. т. 6N	R. 18W
Landform (hillslope, terrace, etc.): Hillside	 2	_	ncave, convex, no		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.424017	Long.	· -82.210342	Datum: NAD 83
Soil Map Unit Name: Ch					N/A
Are climatic/hydrologic conditions on the si	te typical for this time of y	year? Yes	s • No O	— (If no, explain in Remarks	s.)
		tly disturbed?		Circumstances" present?	Yes No
Are Vegetation , Soil , or Hy	rdrology naturally p	problematic?		xplain any answers in Re	marks.)
Summary of Findings - Attach	<i>.</i>				•
Hydrophytic Vegetation Present? Yes	○ No ●				<u> </u>
Hydric Soil Present? Yes	○ No •		Sampled Area a Wetland?	Yes ○ No ●	
Wetland Hydrology Present? Yes	○ No •	Wicilii	i a wecianu:		
Hydrology					
Hydrology Wetland Hydrology Indicators:					
Primary Indicators (minimum of one 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 Water Table Present?	Water-Stained Lea Aquatic Fauna (B1 Marl Deposits (B1! Hydrogen Sulfide (Oxidized Rhizosph Presence of Reduc Recent Iron Reduc Thin Muck Surface Other (Explain in F	Odor (C1) neres along Living ted Iron (C4) ction in Tilled Soils	Roots (C3) s (C6)	Secondary Indicators (minim Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry Season Water Table Crayfish Burrows (C8) Saturation Visible on Aei Stunted or Stressed Plar Geomorphic Position (D2 Shallow Aquitard (D3) Microtopographic Relief FAC-neutral Test (D5)	rial Imagery (C9) hts (D1) 2) (D4)
Saturation Present? (includes capillary fringe) Ves No No Describe Recorded Data (stream gauge, mo		s, previous insp	Wetland Hydro ections), if availab		<i></i> No ♥
Remarks:					

VEGETATION - OSE SCIENCING Hames of p	Janes			Sampling Point: upl-jbl-20180711-05
Tree Stratum (Plot size:)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
				Number of Dominant Species
1 Prunus serotina	65	✓	FACU	That are OBL, FACW, or FAC:1(A)
2. Acer saccharum	40	✓	FACU	Tabal Neuralian of Daminant
3	0			Total Number of Dominant Species Across All Strata: 3 (B)
4				
				Percent of dominant Species
5				That Are OBL, FACW, or FAC: 33.3% (A/B)
6				, ,
7	0			Prevalence Index worksheet:
(-1 - 1	105 =	= Total Cove	r	Total % Cover of: Multiply by:
Sapling/Shrub Stratum (Plot size:)				OBL species 0 x 1 = 0
1	0			
2				FACW species $\underline{5}$ x 2 = $\underline{10}$
				FAC species x 3 =
3				FACU species $105 \times 4 = 420$
4				UPL species $0 \times 5 = 0$
5	0			
6	0			Column Totals: <u>110</u> (A) <u>430</u> (B)
7	_			Prevalence Index = B/A = 3.909
		= Total Cove		
Herb Stratum (Plot size:)		J.ai COVE	•	Hydrophytic Vegetation Indicators:
	F		FACIAL	Rapid Test for Hydrophytic Vegetation
1. Leersia virginica		✓	FACW	Dominance Test is > 50%
2	0			Prevalence Index is ≤3.0 ¹
3	0			
4				Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5				1 —
				Problematic Hydrophytic Vegetation ¹ (Explain)
6				1 Variables of hydric call and wathend hydrology worth
7	0			Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
8	0			
9	0			Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
				breast height (DBH), regardless of height.
1				breast neight (DDF1), regardless of neight.
2				Sapling/shrub - Woody plants less than 3 in. DBH and
(Plot size)	5=	= Total Cove	r	greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				
1				Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
1	0			height.
т.	0 =	= Total Cove		l noight.
	=	= Total Cove	Γ	
				Hydrophytic
				Vegetation Present? Yes ○ No ●
				Plesent? 165 5 116 5
Remarks: (Include photo numbers here or on a separate	sheet.)			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-20180711-05

Deptn	Matrix		Da	dox Features		e absence of indicators.)	
Depth (inches)	Color (moist)	%	Color (moist)	% Ty	pe 1 Loc²	Texture	Remarks
0-16	10YR 3/3	100				Silt Loam	
						-	
						_	
						-	
						-	
pe: C=Concent	ration. D=Depletion	n. RM=Red	uced Matrix, CS=Covere	d or Coated San	d Grains ² Loca	ation: PL=Pore Lining. M=Ma	atrix
dric Soil Indi	icators:					To disease of the Booki	
Histosol (A1)			Polyvalue Relov	w Surface (S8) (RR R.		ematic Hydric Soils: 3
Histic Epipedo			MLRA 149B)	· Juliuce (30) ((LRR K, L, MLRA 149B)
				ace (S9) (LRR R	, MLRA 149B)	Coast Prairie Redo	x (A16) (LRR K, L, R)
Black Histic (A				Mineral (F1) LRR		5 cm Mucky Peat	or Peat (S3) (LRR K, L, R)
Hydrogen Sul			Loamy Gleyed		//	Dark Surface (S7)	(LRR K, L, M)
Stratified Laye						Polyvalue Below S	urface (S8) (LRR K, L)
	ow Dark Surface (A	11)	Depleted Matrix			☐ Thin Dark Surface	(S9) (LRR K, L)
Thick Dark Su	urface (A12)		Redox Dark Su				lasses (F12) (LRR K, L, R)
Sandy Muck N	Mineral (S1)		Depleted Dark				in Soils (F19) (MLRA 149B)
Sandy Gleyed	l Matrix (S4)		Redox Depress	ions (F8)) (MLRA 144A, 145, 149B)
Sandy Redox	(S5)					Red Parent Materi	
Stripped Matr	ix (S6)						
Stripped Matr		(149B)				0.1 (5 1	
Dark Surface	(S7) (LRR R, MLRA					Other (Explain in I	Remarks)
Dark Surface	(S7) (LRR R, MLRA		and hydrology must be p	oresent, unless d	isturbed or prob		Remarks)
Dark Surface	(S7) (LRR R, MLRA		and hydrology must be p	oresent, unless d	isturbed or prob		Remarks)
Dark Surface adicators of hyderictive Laye	(S7) (LRR R, MLRA		and hydrology must be p	oresent, unless d	isturbed or prob		
Dark Surface ndicators of hydrotive Laye Type:	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob		Yes O No •
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hydicators of hydicators Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hydicators of hydicators Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Idicators of hyderictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hydicators of hydicators Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface ndicators of hyd strictive Laye Type:	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface ndicators of hyd strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface ndicators of hyd strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hyd Strictive Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	
Dark Surface Indicators of hydicators of hydicators Laye Type: Depth (inches)	(S7) (LRR R, MLRA drophytic vegetation (if observed):		and hydrology must be p	oresent, unless d	isturbed or prob	lematic.	

Project/Site Beaver Brownhelm Project	City/County	orain County	Sampling Date: 08-Oct-18
Applicant/Owne First Energy	_	State: OH Sampli	ing Point: upl-aeh-20181008-01
Investigator(s) AEH, TL	Section, Town	nship, Range:	T 6N R. 18W
Landform (hillslope, terrace, etc Hillside	Local relief (conc		Slope 0.0 % / 0.0 °
Subregion (LRR or MLRA LRR R	Lat.: 41,40943		
	41.40943		
Soil Map Unit Nam DSB			assificatio N/A
Are climatic/hydrologic conditions on the site typical for this t	ime of Yes	No (If no, expla	nin in Remarks
Are Vegetatio , Soil , or Hydrolog sig	nificantly disturbed	Are "Normal Circumstance	ces" presen Yes No
Are Vegetatio $\ \square$, Soil $\ \square$, or Hydrolog $\ \square$ na	turally problematic	(If needed, explain any a	nswers in Remark
Summary of Findings - Attach site map show	wing sampling poi	nt locations, trans	ects, important features,
Hydrophytic Vegetation Presen Yes O No •			
Hydric Soil Present? Yes No •	Is the Sa	nmpled Yes O N	lo •
Wetland Hydrology Present?	Area		
Remarks: (Explain alternative procedures here or in a separation	ate ren		
Hydrology			
Wetland Hydrology Indicator			dicators (minimum of 2 required)
Primary Indicators (minimum of one required; check all that a			Soil Cracks (B6
	ained Leaves (B		e Patterns (B10
	auna (B13 osits (B15)		m Lines (B16) son Water Table (C
	Sulfide Odor (C	= '	Burrows (C
	Rhizospheres along Living Ro		on Visible on Aerial Imagery (C
	of Reduced Iron (C4		or Stressed Plants (D
Algal Mat or Crust (B4 Recent Ire	on Reduction in Tilled Soils (C	Geomorp	phic Position (D2
	k Surface (C7	Shallow	Aquitard (D3
	plain in Remarks		ographic Relief (D
Sparsely Vegetated Concave Surface (☐ FAC-neu	tral Test (D
Field Observations:			
Surface Water Present? Yes No Depth (inches):		· ·
Water Table Present? Yes No Depth (inches):		
Saturation Present?		Wetland Hydrology Preser	n Yes ○ No ●
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aeria	-	ions) if available:	
Describe Recorded Data (Stream gauge, monitoring well, aeria	ii priotos, previous irispect	ioris), ii avaliable.	· ·
Remarks:			· ·
			· ·

VEGETATION - Use scientific names of p	lants			Sampling Point upl-aeh-20181008-01
(District	Absolut		Indicato	Dominance Test workshee
Tree Stratu (Plot size:)	<u>e</u>	_ _	r	Number of Dominant Species
1		Ц		That are OBL, FACW, or FAC: (A)
2				Total Number of Dominant
3				Species Across All Strata:
4				Percent of dominant Species
5				That Are OBL, FACW, or
6				
7				Prevalence Index workshee
Sapling/Shrub Stratu (Plot size:)	0	= Total Cove		Total % Cover of: Multiply by:
1	0			OBL species 0 x 1 = 0
2.				FACW species $0 \times 2 = 0$
3		H		FAC species $0 \times 3 = 0$
4	_	Ē		FACU species $\underline{105}$ x 4 = $\underline{420}$
5				UPL species $0 \times 5 = 0$
6.				Column Totals: 105 (A) 420 (B)
7				Prevalence Index = B/A = 4.000
		= Total Cove		· —
Herb Stratu (Plot size:)				Hydrophytic Vegetation Indicato Rapid Test for Hydrophytic Vegetati
1. Schedonorus arundinaceus	75	✓	FACU	Dominance Test is > 50
2. Cirsium arvense	15		FACU	
3. Plantago lanceolata	10		FACU	Prevalence Index is ≤3. 1
4. Trifolium repens	5		FACU	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate
5	0			Problematic Hydrophytic Vegetation ¹ (Expla
6				
7				¹ Indicators of hydric soil and wetland hydrology
8				must
9				Definitions of Vegetation Strata
0				Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
1				breast height (DBH), regardless of height.
2.	0	Ħ		
•	105	= Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratu (Plot size:)				, ,
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2				size, and woody plants less than 3.28 ft tall.
3				Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	0	= Total Cove		
				Hydrophyti
				C Vegetation Yes ○ No ●
Remarks: (Include photo numbers here or on a separate s	shee			

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined b

Soil Sampling Point upl-aeh-20181008-01

Profile Descr	iption: (Des	cribe to	the depth	needed to documen	t the indi	cator or co	onfirm the	absence of indic			
Depth		Matrix			ox Featur						
(inches)	Color (r		<u></u> %	Color (moist	%_	Type 1	Loc2	Texture		Rema	arks
0-18	10YR	3/2	100					Silty Clay		15% gravel	
								-			
-				-							
								-			
			-								
				-							
¹ Type: C=Cond	centration. D=	-Depletio	n. RM=Redu	iced Matrix, CS=Covere	ed or Coate	ed Sand Gra	ins ² Locat	ion: PL=Pore Lining	. M		
Hydric Soil 1								Indicators for		matic Hydrid	r Soil 3
Histosol (Polyvalue Belo	w Surface	(S8) (LRR					
	pedon (A2			R, MLRA 149B)		. , .				LRR K, L, MLR	
☐ Black Hist				Thin Dark Surfa	ace (S9) (LRR R, MLR	A 14			((A16) (LRR K	
Hydrogen	Sulfide (A4			Loamy Mucky I	Mineral (F1) LRR K,				r Peat (S3) (LF	KK K, L,
Stratified	Layers (A5			Loamy Gleyed	Matrix (F			Dark Surfa			ID I/
Depleted	Below Dark S	urface (A	L	Depleted Matri						ırface (S8) (LR	KK,
Thick Dar	k Surface (A1			Redox Dark Su	-					(S9) (LRR K, asses (F12) (L	DD V I
Sandy Mu	ıck Mineral (S			Depleted Dark	Surface (F					in Soils (F19) (E	
	eyed Matrix (S			Redox Depress	ions (F8					(MLRA 144A,	
Sandy Re								Red Parent			145, 14
Stripped I										Surface (TF1	
I —	ace (S7) (LRR	R, MLRA	149					Other (Exp			
				nd hydrology must be բ	rocont un	loss disturb	ומפיים אם	□ Other (Exp	iaiii iii K	emarks	
			i aliu wella	id flydrology fflust be p	resent, un	iless disturt	led of probl				
Restrictive L	ayer (if obse	erved									
Туре:								Undrie Ceil Dree		V (No •
Depth (inc	hes):							Hydric Soil Pres	sent	Yes 🔾	NO S
Remarks:											

Project/Site: Brownhelm-Beaver-Black River		City/County: Lorain	l	Samplin	g Date: 10-Jul-18
Applicant/Owner: FirstEnergy			State: OH	Sampling Point:	upl-jbl-071018-01
Investigator(s): JBL,AEH		Section, Townsh	ip, Range: S.		R. 19W
Landform (hillslope, terrace, etc.): Lowl	and	Local relief (concave	-		Slope: 0.0 % / 0.0 °
Subregion (LRR or MLRA): LRR R	Lat.:	41.393363	Long.:	-82.268063	Datum: NAD 83
Soil Map Unit Name: HsA, LcB	-			NWI classification:	N/A
Are climatic/hydrologic conditions on the	site typical for this time of v	year? Yes ●	No O (If	no, explain in Remarks	s.)
		,	ζ	cumstances" present?	Yes No
				•	manta)
Summary of Findings - Attack		•		ain any answers in Re	•
		Sampling point	iocations,	transects, impo	ortant reatures, etc
, , , , , , , , , , , , , , , , , , ,	S NO ○	Is the Samp	led Area		
Yes	i ○ No ⑨	within a We		′es O No •	
Wetland Hydrology Present? Remarks: (Explain alternative procedure)					
Hydrology					
Wetland Hydrology Indicators:				condary Indicators (minim	um of 2 required)
_Primary Indicators (minimum of one req	uired: check all that apply)			Surface Soil Cracks (B6)	
Surface Water (A1)	Water-Stained Lea	ives (B9)		Drainage Patterns (B10)	
High Water Table (A2)	Aquatic Fauna (B1	3)		Moss Trim Lines (B16)	
Saturation (A3)	Marl Deposits (B15	5)		Dry Season Water Table	e (C2)
Water Marks (B1)	Hydrogen Sulfide	Odor (C1)		Crayfish Burrows (C8)	
Sediment Deposits (B2)	Oxidized Rhizosph	eres along Living Roots	(C3)	Saturation Visible on Ae	
☐ Drift deposits (B3)	Presence of Reduc	` ,		Stunted or Stressed Plan	
Algal Mat or Crust (B4)	Recent Iron Reduc	ction in Tilled Soils (C6)		Geomorphic Position (D	2)
Iron Deposits (B5)	☐ Thin Muck Surface			Shallow Aquitard (D3)	(D.4)
Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Other (Explain in F	Remarks)		Microtopographic Relief FAC-neutral Test (D5)	(D4)
				7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	
Field Observations: Surface Water Present? Yes N	• Depth (inches):				
_					
	Depth (inches):		etland Hydrolo	gy Present? Yes	○ No •
Saturation Present? (includes capillary fringe) Yes N	Depth (inches):		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Describe Recorded Data (stream gauge, r	nonitoring well, aerial photos	s, previous inspection	s), if available:		
Remarks:				·	
sloping down to north					

vegeration - use scientific names of pia	ints			Sampling Point: upl-jbl-071018-01
(2)	Absolute	Dominant Species 2	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size:)	% Cover	Species?	Status	Number of Dominant Species
1				That are OBL, FACW, or FAC:1(A)
2				Total Number of Dominant
3	0			Species Across All Strata:
4	0			
5	0			Percent of dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
6	0			That Are ODL, TACW, OF TAC.
7	0			Prevalence Index worksheet:
	0 =	Total Cove	r	Total % Cover of: Multiply by:
	0			OBL species <u>5</u> x 1 = <u>5</u>
1				FACW species $87 \times 2 = 174$
2				FAC species $4 \times 3 = 12$
3	_			FACU species $13 \times 4 = 52$
4				UPL species $0 \times 5 = 0$
5				Column Totals: 109 (A) 243 (B)
6		П		Prevalence Index = $B/A = 2.229$
		Total Cove	-	·
Herb Stratum (Plot size: 30		- Total Cove		Hydrophytic Vegetation Indicators:
1 Lotus comiculatus	3		FACU	✓ Rapid Test for Hydrophytic Vegetation
2. Phragmites australis		✓	FACW	✓ Dominance Test is > 50%
3. Scirpus atrovirens	_		OBL	V Prevalence Index is ≤3.0 ¹
4. Apocynum cannabinum	1		FAC	Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Phalaris arundinacea	10		FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Trifolium pratense			FACU	Problematic Hydrophytic Vegetation (Explain)
7 Juncus torreyi	0		FACW	¹ Indicators of hydric soil and wetland hydrology must
8 Solidago canadensis			FACU	be present, unless disturbed or problematic.
9 Agrostis stolonifera			FACW	Definitions of Vegetation Strata
10	-			Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at
11				breast height (DBH), regardless of height.
12				
		Total Cove		Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1m) tall
Woody Vine Stratum (Plot size:)				greater triair 5.20 ft (fiff) tail
1	0			Herb - All herbaceous (non-woody) plants, regardless of
2	0			size, and woody plants less than 3.28 ft tall.
3	0			Woody vine - All woody vines greater than 3.28 ft in
4	0			height.
	=	Total Cove	r	
				Undrankatia
				Hydrophytic Vegetation
				Present? Yes No
Remarks: (Include photo numbers here or on a separate sh	eet.)			
crwn vetch 20				

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: upl-jbl-071018-01

Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains Local Cause Loamy Sand				the depth	needed to docu			onfirm the	e absence of indicators.)		
Coarse Loamy Sand Coarse Loamy				%	Color (moi			Loc2	Texture Remarks		
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains 2Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Histoso (IA) Histos (IA) Histos (Epipedon (A2) Histos (Epipedon (A2) Histos (A3) Tim loark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Hydrigen Sulfide (A4) Loamy Mucky Mineral (F1) LRR K, L) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Dark Surface (S7) Redox Depressions (F8) Redox Depressions (F8) Redox Depressions (F8) Redox Depression of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. **Restrictive Layer (if observed): Type: _gravel **Matrix F8il Presental	0-6				•						
Type: C=Concentration. D=Depletion. RM=Reduced Matrix, CS=Covered or Coated Sand Grains ³ Location: PL=Pore Lining. M=Matrix Hydric Soil Indicators: Histor Spipedon (A2) Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Coast Prairie Redox (A16) (LRR K, L, R) Stratified Layers (A5) Depleted Below Dark Surface (S9) (LR R, MLRA 149B) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (F3) Sandy Gleyed Matrix (54) Sandy Redox (55) Sardy Gleyed Matrix (54) Dark Surface (A12) Redox Depressions (F8) Mesis Cspodic (TA6) (MLRA 149B) Mesis Cspodic (TA6) (MLRA 144B) Mesis Cspodic (TA6) (MLRA 149B) Mesis Cspodic (TA6) (MLRA 149B) Mesis Cspodic (TA6) (MLRA 149B) Mesis Cspodic (TA6) (MLRA 144A, 145, 149B) Mesis Cspodic (TA6) (MLRA 144B, 145, 149B) Mesis Cspodic (TA6) (MLRA 144A, 145, 149B) Mesis Csp	6-16	1.0VP		98	10VP	R/4 2		M	· · · · · · · · · · · · · · · · · · ·		
Hydric Soil Indicators: Histosol (A1)	0-10		3/2		101K	- Σ 			Coarse Loanly Sand		
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)				-				-			
Hydric Soil Indicators: Histosol (A1)				-				-			
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)											
Hydric Soil Indicators: Histosol (A1)	Type: C=Cor	ncentration. D=[Depletio	n. RM=Red	uced Matrix, CS=C	Covered or Coa	ted Sand Gra	ins ² Loca	ation: PL=Pore Lining, M=Matrix		
Histosol (A1)			-,500								
Histic Epipedon (A2) Histic Epipedon (A2)	_				Polyvalue	Below Surface	e (S8) (I RR F	₹.			
Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A11) Redox Dark Surface (F7) Sandy Muck Mineral (S1) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S9) (LRR K, L, M) Depleted Dark Surface (F8) Redox Depressions (F8) Redox Depressions (F8) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, R) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR K, L) Find Dark Surface (S9) (LRR K, L)							- () (=1311)	,			
Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L, M) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** Restrictive Layer (if observed): Type: _gravel **Indicators of Park Surface (S7) (LRR R, MLRA 149B) **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.** **Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturb				Thin Dark	Surface (S9)	(LRR R, MLF	RA 149B)				
Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Peledmont Floodplain Soils (F19) (MLRA 149B) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Redox Depressions (F8) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Type: _gravel Hudric Seil Procent?				Loamy M	ucky Mineral (F1) LRR K, L)					
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: _gravel Depleted Matrix (F3) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)					Loamy Gl	eyed Matrix (F	-2)				
Thick Dark Surface (A12) Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Tron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Redox Depressions (F8) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Trype:gravel Hudric Scil Procent 2			rface (A	11)	Depleted	Matrix (F3)					
Sandy Muck Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: _gravel Piedmont Floodplain Soils (F19) (MLRA 149B) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)											
Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type: _gravel Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	Sandy Mı	uck Mineral (S1)	1								
Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Type:gravel Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Restrictive Layer (if observed): Type:gravel Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)	Sandy Gl	leyed Matrix (S4))		Redox De	epressions (F8)				
Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:gravel	Sandy Redox (S5)										
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:gravel	Stripped Matrix (S6)										
³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if observed): Type:gravel	Dark Sur	face (S7) (LRR F	R, MLRA	149B)							
Restrictive Layer (if observed): Type:gravel	³ Indicators o	of hydrophytic ve	egetatio	n and wetla	and hydrology mus	t be present.	unless disturt	ed or probl			
Type: <u>aravel</u>					, , , , , , , , , , , , , , , , , , , ,	, , ,					
Hydric Soil Procent? Vee No (8)			veu).								
Deput (Indies). 6									Hydric Soil Present? Yes ○ No ●		
	Remarks:	cries): <u>o</u>							100 1 100 1		

APPENDIX B OEPA WETLAND ORAM FORMS

Brownhelm-Be	eaver-Black River Rater(s): J. Lubber	rs; A. Hanner	Date:	7/10/2018
	•	Field Id:	-	
1 1	Metric 1. Wetland Area (size).	w-jbl-071018-02		
subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.02 acres extends outside SC		
4 5	Metric 2. Upland buffers and surro	ounding land use.		
subtotal	WIDE. Buffers average 50m (164ft) or more around wet MEDIUM. Buffers average 25m to <50m (82 to <164ft) a x NARROW. Buffers average 10m to <25m (32ft to <82ft)	tland perimeter (7) around wetland perimeter (4)) around wetland perimeter (1)		
	VERY LOW. 2nd growth or older forest, prairie, savanna x LOW. Old field (>10 years), shrubland, young second grown MODERATELY HIGH. Residential, fenced pasture, park	ah, wildlife area, etc. (7) rowth forest. (5) k, conservation tillage, new fallow field. (3)		
7.5 12.5	Metric 3. Hydrology.			
	Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scor None or none apparent (12) Recovered (7) x Recovering (3) x Recent or no recovery (1)	100 year floodplain (1) x Between stream/lake and other ht x Part of wetland/upland (e.g. forest Part of riparian or upland corridor 3d. Duration inundation/saturati Semi- to permanently inundated/s Regularly inundated/saturated (3) x Seasonally inundated (2) x Seasonally saturated in upper 30c re one or double check and average. Check all disturbances observe x ditch x pridic dike x ro weir stormwater input C	uman use (1) t), complex (1) (1) ion. Score one or dbl check. aturated (4) cm (12in) (1) d oint source (nonstormwater) ling/grading pad bed/RR track redging	
	None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing x sl grazing h clearcutting x selective cutting woody debris removal free	erbaceous/aquatic bed remov edimentation redging arming	al
	1 1 subtotal 4 5 subtotal 7.5 12.5 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) (2 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2 pts) 0.4 to <3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surro WIDE. Buffers average 50m (164ft) or more around well meDIUM. Buffers average 50m (164ft) or more around well meDIUM. Suffers average 50m (62 to <164ft) NARROW. Buffers average <10m (<32ft) around 2b. Intensity of surrounding land use. Select one or VERY LOW. 2nd growth or older forest, prairie, savann x LOW. Old field (>10 years), shrubland, young second g MODERATELY HIGH. Residential, fenced pasture, part HIGH. Urban, industrial, open pasture, row cropping, mid well as urface water (3) Perennial surface water (4ake 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. Scor None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1) 4b. Habitat development. Select only one and assign (2 per poor (1)) **Recovering (2) per poor (1) **Abitat development. Select only one and assign (2 per poor (1)) **Accovering (3) per poor (1) **Accovering (3) per	Metric 1. Wetland Area (size). W-jbl-071018-02	Metric 1. Wetland Area (size),

ORAM_w-jbl-071018-02.xlsm | test_Field 10/10/2018

Site: FE I	Brown	nhelm-	Beaver-Black Rive	Rater(s): J. Lubbe	ers; A. F	łanner	Date:	7/10/2018
		- "		(-,	-,	Field Id:		
		19.5	1			w-jbl-071018-02		
	ı	subtotal this	page					
	0	19.5	•	cial Wetlands.				
max 10 pts.		subtotal	Check all that ar	pply and score as indica	ated.			
			Bog (10)	, , , , , , , , , , , , , , , , , , , ,				
			Fen (10)					
			Old growth forest (10) Mature forested wetlar	nd (5)				
				tary wetland-unrestricted hydrol	logy (10)			
				tary wetland-restricted hydrolog	y (5)			
				es (Oak Openings) (10)				
			Relict Wet Praires (10) te/federal threatened or endang	nered enecia	ne (10)		
				ongbird/water fowl habitat or us		55 (10)		
				ee Question 5 Qualitative Ratir				
	-1	18.5	Metric 6. Plan	t communities, inte	rspersi	on, microtopography.		
max 20pts.		subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cove	er Scale	
			Score all present using	g 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
			Aquatic bed 1 Emergent		1	Present and either comprises small par		
			1 Emergent Shrub			vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
			Forest		2	Present and either comprises significan	t part of wetland's 2	
			Mudflats			vegetation and is of moderate quality or	comprises a small	
			Open water			part and is of high quality		
			Other6b. horizontal (plan v	iow) Intereperation	3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
			Select only one.	iew) interspersion.		vegetation and is or night quality		
			High (5)			Narrative Description of Vegetation C	Quality	
			Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
			Moderate (3) Moderately low (2)			disturbance tolerant native species Native spp are dominant component of	the vegetation, med	
			x Low (1)			although nonnative and/or disturbance t		
			None (0)			can also be present, and species divers		
			6c. Coverage of inva			moderately high, but generallyw/o prese	ence of rare	
			Table 1 ORAM long fo			threatened or endangered spp to		
			or deduct points for co			A predominance of native species, with and/or disturbance tolerant native spp a		
			Moderate 25-75% cov	* *		absent, and high spp diversity and ofter	•	
			Sparse 5-25% cover (-			the presence of rare, threatened, or end		
			Nearly absent <5% co	ver (0)				
			Absent (1) 6d. Microtopography		0	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	У	
			Score all present using		1			
			Vegetated hummucks		2	Moderate 1 to <4ha (2.47 to 9.88 acres))	
			Coarse woody debris		3	High 4ha (9.88 acres) or more		
			Standing dead >25cm 1 Amphibian breeding per			Microtopography Cover Scale		
			Amphibian breeding p	JUIS	0	Absent		
					1	Present very small amounts or if more of	common	
						of marginal quality Present in moderate amounts, but not of	f highest	
Category 1		_			2	quality or in small amounts of highest qu		
	18.5	GRANI	TOTAL(max 100 pts)	3	Present in moderate or greater amounts	3	
						and of highest quality		

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10/10/2018

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	rs; A. Hanner	Date:	7/10/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-jbl-071018-03		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.26 acres extends outside SC		
	4 6	Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around we MEDIUM. Buffers average 25m to <50m (82 to <164ft) x NARROW. Buffers average 10m to <25m (32ft to <82ft VERY NARROW. Buffers average <10m (<32ft) around 2b. Intensity of surrounding land use. Select one or VERY LOW. 2nd growth or older forest, prairie, savann	tland perimeter (7) around wetland perimeter (4)) around wetland perimeter (1) d wetland perimeter (0) double check and average.		
		LOW. Old field (>10 years), shrubland, young second g MODERATELY HIGH. Residential, fenced pasture, par HIGH. Urban, industrial, open pasture, row cropping, m	rowth forest. (5) k, conservation tillage, new fallow field. (3)		
	7.5 13.5		(')		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) < <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scot None or none apparent (12) Recovered (7) x Recovering (3) x Recent or no recovery (1)	Check all disturbances observed X ditch	an use (1) complex (1) h. Score one or dbl check. urated (4) (12in) (1) tt source (nonstormwater) g/grading b bed/RR track	
	6 19.5	Metric 4. Habitat Alteration and De	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double che None or none apparent (4) Recovered (3) x Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assigned the selection of	n score. Id average. Check all disturbances observed X mowing grazing X slen yrazing X sed X selective cutting woody debris removal		al
	19.5]	Toxic poliutarits Hutt	ient enrichment	

Site: FE I	Brown	nhelm-	-Bea	ver-Black River	Rater(s):	J. Lubbers:	A. F	lanner	Date:	7/10/2018
					/	-,		Field Id:		-
		19.5	5					w-jbl-071018-03		
		subtotal this	s page					-		
	0	19.5		Metric 5. Specia	al Wetlan	ds.				
			_	Check all that app			ı			
max 10 pts.		subtotal		Bog (10)	ily allu scol	e as muicated				
				Fen (10)						
				Old growth forest (10)						
			\vdash	Mature forested wetland		- t	40\			
			\vdash	Lake Erie coastal/tributar Lake Erie coastal/tributar			10)			
				Lake Plain Sand Prairies						
				Relict Wet Praires (10)						
			\vdash	Known occurrence state				es (10)		
				Significant migratory son Category 1 Wetland. See						
	-1	18.5	5					on, microtopography.		
max 20pts.		subtotal	_	6a. Wetland Veget	ation Comr	nunities.		Vegetation Community Cove	er Scale	
				Score all present using 0	to 3 scale.		0	Absent or comprises <0.1ha (0.2471 ac		
				Aquatic bed			1	Present and either comprises small part		
			1	Emergent Shrub				vegetation and is of moderate quality, or significant part but is of low quality	r comprises a	
			\vdash	Forest			2	Present and either comprises significant	t part of wetland's 2	
				Mudflats				vegetation and is of moderate quality or	•	
				Open water				part and is of high quality		
				Other 6b. horizontal (plan view		n .	3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
				Select only one.	w) interspersion	л.		vegetation and is of high quality		
				High (5)				Narrative Description of Vegetation C	Quality	
				Moderately high(4)				Low spp diversity and/or predominance	of nonnative or low	
			\vdash	Moderate (3) Moderately low (2)				disturbance tolerant native species Native spp are dominant component of	the vegetation, med	
			х	Low (1)				although nonnative and/or disturbance t		
				None (0)				can also be present, and species divers		
				6c. Coverage of invasiv		r		moderately high, but generallyw/o prese	ence of rare	
				Table 1 ORAM long form				threatened or endangered spp to	e 1:1	
				or deduct points for cove Extensive >75% cover (-				A predominance of native species, with and/or disturbance tolerant native spp a		
			<u> </u>	Moderate 25-75% cover	,			absent, and high spp diversity and often	•	
				Sparse 5-25% cover (-1)				the presence of rare, threatened, or end		
				Nearly absent <5% cove	r (0)					
			Ш	Absent (1) 6d. Microtopography.			٥	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	у	
				Score all present using 0	to 3 scale.			Low 0.1 to <1ha (0.247 acres)		
			1	Vegetated hummucks/tu			2	Moderate 1 to <4ha (2.47 to 9.88 acres)	1	
				Coarse woody debris >1	. ,		3	High 4ha (9.88 acres) or more		
			1	Standing dead >25cm (1 Amphibian breeding pool				Microtopography Cover Scale		
			ш	Amphibian breeding poor	5		0	Absent		
							_	Present very small amounts or if more of	common	
							2	of marginal quality Present in moderate amounts, but not o	f highest	
Category 1		•						quality or in small amounts of highest qu		
	18.5	GRANI	D TO	TAL(max 100 pts)			3	Present in moderate or greater amounts	3	
								and of highest quality		

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10/10/2018

Site: FE Brownhelm-	Beaver-Black River Rater(s): J. Lubbe	ers; A. Hanner	Date:	7/9/2018
	•	Field Id:	•	
2 2	Metric 1. Wetland Area (size).	w-jbl-070918-01		
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) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	2.78 ac extends outside SC	cres	
7 9	Metric 2. Upland buffers and surr	ounding land use.		
max 14 pts. subtotal	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or more around w MEDIUM. Buffers average 25m to <50m (82 to <164ft x NARROW. Buffers average 10m to <25m (32ft to <82 VERY NARROW. Buffers average <10m (<32ft) aroun 2b. Intensity of surrounding land use. Select one o X VERY LOW. 2nd growth or older forest, prairie, savan x LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, pa	etland perimeter (7)) around wetland perimeter (4) ft) around wetland perimeter (1) nd wetland perimeter (0) r double check and average. nah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow field.		
7.51.40.5	HIGH. Urban, industrial, open pasture, row cropping, r	mining, construction. (1)		
7.5 16.5	, ,,	0.0 0		
max 30 pts. subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sci. None or none apparent (12) Recovered (7) x Recovering (3) Recent or no recovery (1)	Semi- to permanently inundat Regularly inundated/saturate X Seasonally inundated (2) X Seasonally saturated in uppe ore one or double check and average. Check all disturbances obs X ditch tile	ner human use (1) orrest), complex (1) ridor (1) ruration. Score one or dbl chec ted/saturated (4) d (3) or 30cm (12in) (1)	
6 22.5	Metric 4. Habitat Alteration and D	evelopment.		
max 20 pts. subtotal	4a. Substrate disturbance. Score one or double check and None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assignment (5) Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) X Recent or no recovery (1)	gn score. Ind average. Check all disturbances obser mowing grazing	ved x shrub/sapling removal herbaceous/aquatic bed removed sedimentation dredging farming nutrient enrichment	oval

Site: FE E	Brownhelm-l	Beaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/9/2018
•		•	Field Id:	•	
	22.5		w-jbl-070918-0	1	
	subtotal this		,		
	0 22.5	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as indicat	ed.		
		Bog (10)			
		Fen (10) Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-unrestricted hydrolog	gy (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 endange	red species (10)		
		Significant migratory songbird/water fowl habitat or usage			
		Category 1 Wetland. See Question 5 Qualitative Rating			
	0 22.5	Metric 6. Plant communities, inters	spersion, microtopog	raphy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Comn	nunity Cover Scale	
		Score all present using 0 to 3 scale.	0 Absent or comprises <0	.1ha (0.2471 acres) contiguous area	
		Aquatic bed		prises small part of wetland's 1	
		1 Emergent Shrub		derate quality, or comprises a	
		Forest	significant part but is of I	orises significant part of wetland's 2	
		Mudflats		derate quality or comprises a small	
		Open water	part and is of high qualit		
		Other		significant part, or more, of wetland's 3	
		6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	quality	
		High (5)	Narrative Description of	of Vegetation Quality	
		Moderately high(4)		r predominance of nonnative or low	
		Moderate (3)	disturbance tolerant nati		
		Moderately low (2)		t component of the vegetation, mod	
		Low (1) x None (0)		or disturbance tolerant native spp d species diversity moderate to	
		6c. Coverage of invasive plants. Refer		nerallyw/o presence of rare	
		Table 1 ORAM long form for list. Add	threatened or endangere	• • • • • • • • • • • • • • • • • • • •	
		or deduct points for coverage		re species, with nonnative spp high	
		Extensive >75% cover (-5) x Moderate 25-75% cover (-3)		ant native spp absent or virtually versity and often, but not always,	
		Sparse 5-25% cover (-1)		eatened, or endangered spp	
		Nearly absent <5% cover (0)			
		Absent (1)	Mudflat and Open Water		
		6d. Microtopography. Score all present using 0 to 3 scale.	0 Absent < 0.1ha (0.247 ac 1 Low 0.1 to < 1ha (0.247 f		
		Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47)		
		Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or		
		Standing dead >25cm (10in) dbh			
		1 Amphibian breeding pools	Microtopography Cove	er Scale	
			Absent Present very small amounts	unts or if more common	
			of marginal quality		
			2 Present in moderate am		
Category 1			quality or in small amou	nts of highest quality	
	22.5 GRAND	TOTAL(max 100 pts)	3 Present in moderate or g	greater amounts	
			and of highest quality		

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Site: FE	Brownhelm-B	Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/9/2018
		•	Field Id:	•	
	3 3	Metric 1. Wetland Area (size).	w-jbl-070918-02		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	3.57 acres		
	10 13	<0.1 acres (0.04ha) (0 pts) Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one an WIDE. Buffers average 50m (164ft) or more around weth MEDIUM. Buffers average 25m to <50m (82 to <164ft) a NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around 2b. Intensity of surrounding land use. Select one or d	nd assign score. Do not double check. and perimeter (7) round wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)		
		VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second gro MODERATELY HIGH. Residential, fenced pasture, park. HIGH. Urban, industrial, open pasture, row cropping, mir	h, wildlife area, etc. (7) owth forest. (5) conservation tillage, new fallow field. (3)		
	8.5 21.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed X ditch poin tile X fillin dike X roac weir drec stormwater input Othe	an use (1) complex (1)) h. Score one or dbl check. urated (4) (12in) (1) It source (nonstormwater) g/grading bed/RR track dging	
	5.5 27	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	average. Check all disturbances observed X mowing X shru grazing hert X clearcutting X sedi X selective cutting drec woody debris removal farm	ub/sapling removal paceous/aquatic bed remova imentation iging ning ient enrichment	ı

Site: FE E	3rownh	elm-E	Beaver-Black River Rater(s): J. Lubbe	ers; A. H	anner	Date:	7/9/2018
					Field Id:		
		27			w-jbl-070918-02		
	ou bi	total this p	200		•		
			·				
	0	27	Metric 5. Special Wetlands.				
max 10 pts.	sub	ototal	Check all that apply and score as indica	ited.			
			Bog (10)				
		-	Fen (10)				
		ŀ	Old growth forest (10) Mature forested wetland (5)				
		ŀ	Lake Erie coastal/tributary wetland-unrestricted hydrolo	ogy (10)			
		[Lake Erie coastal/tributary wetland-restricted hydrology	y (5)			
			Lake Plain Sand Prairies (Oak Openings) (10)				
		ŀ	Relict Wet Praires (10)	arad apaaia	2 (10)		
		ŀ	Known occurrence state/federal threatened or endange Significant migratory songbird/water fowl habitat or usa		5 (10)		
		İ	Category 1 Wetland. See Question 5 Qualitative Rating				
	0	27	Metric 6. Plant communities, inter	rspersi	on, microtopography.		
max 20pts.	sub	ototal	6a. Wetland Vegetation Communities.		Vegetation Community Cove	er Scale	
,			Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
		[Aquatic bed		Present and either comprises small par		
			1 Emergent		vegetation and is of moderate quality, o	r comprises a	
		ŀ	Shrub Forest	2	significant part but is of low quality Present and either comprises significan	t part of wetland's 2	
		ŀ	Mudflats	2	vegetation and is of moderate quality or		
		ľ	Open water		part and is of high quality		
			Other		Present and comprises significant part,	or more, of wetland's 3	
			6b. horizontal (plan view) Interspersion. Select only one.		vegetation and is of high quality		
		ſ	High (5)		Narrative Description of Vegetation 0	Quality	
		Ī	Moderately high(4)		Low spp diversity and/or predominance		
			Moderate (3)		disturbance tolerant native species		
		-	Moderately low (2)		Native spp are dominant component of		
		ŀ	Low (1) x None (0)		although nonnative and/or disturbance to 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		
			Extensive >75% cover (-5) x Moderate 25-75% cover (-3)		and/or disturbance tolerant native spp a absent, and high spp diversity and ofter	,	
		ŀ	Sparse 5-25% cover (-1)		the presence of rare, threatened, or end		
		İ	Nearly absent <5% cover (0)	L	are presented or rare, ameatories, or one	iangoroa opp	
		[Absent (1)		Mudflat and Open Water Class Qualit	у	
			6d. Microtopography.		Absent <0.1ha (0.247 acres)		
		Ī	Score all present using 0 to 3 scale. 1 Vegetated hummucks/tussucks		Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres	\	
		ŀ	Coarse woody debris >15cm (6in)		High 4ha (9.88 acres) or more	<u></u>	
		ľ	Standing dead >25cm (10in) dbh	- '	3		
		[1 Amphibian breeding pools		Microtopography Cover Scale		
					Absent	amman.	
				1	Present very small amounts or if more of marginal quality	COMMON	
				2	Present in moderate amounts, but not o	f highest	
Category 1					quality or in small amounts of highest quality		
	27 GI	RAND	TOTAL(max 100 pts)	3	Present in moderate or greater amounts		<u> </u>
					and of highest quality		
					and or ingricor quanty		

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Site: FE	Brownhelm-B	eaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/9/2018
		•	Field Id:		
	2 2	Metric 1. Wetland Area (size).	w-jbl-070918-03		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.25 acres extends outside SC		
	10 12	Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	Calculate average buffer width. Select only one at WIDE. Buffers average 50m (164ft) or more around wetl: MEDIUM. Buffers average 25m to <50m (82 to <164ft) a NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1)		
		Zb. Intensity of surrounding land use. Select one or d VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second growth of the second gr	h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow field. (3)		
	6.5 18.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) Mone or none apparent (12) Recovered (7) Recovering (3) x Recent or no recovery (1) 	Check all disturbances observe x ditch tile pr dike x ri dike x rc weir distarbances observe x ditch dike x rc distarbances observe pr pr pr pr pr pr pr pr pr pr pr pr pr	oman use (1)), complex (1) (1) on. Score one or dbl check. aturated (4)	
	4.5 23	Metric 4. Habitat Alteration and De	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recent or no recovery (1)	Score. I average. Check all disturbances observed x mowing grazing x clearcutting x selective cutting woody debris removal from the control of the c	nrub/sapling removal erbaceous/aquatic bed removal edimentation redging urming utrient enrichment	
	23	OPAM v. 5.0 Field Form Quantitative Pating			

Site: FE B	rownhelm-	-Beaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/9/2018
			Field Id:		
	23	3	w-jbl-070918-03	}	
	subtotal this	s page			
	0 23	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as indicat	ed.		
		Bog (10)			
		Fen (10)			
		Old growth forest (10) Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-unrestricted hydrolog	ıv (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 endanger Significant migratory songbird/water fowl habitat or usac			
		Category 1 Wetland. See Question 5 Qualitative Rating			
	-3 20		, ,	aphy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Comm	unity Cover Scale	
		Score all present using 0 to 3 scale.	0 Absent or comprises <0.1	Tha (0.2471 acres) contiguous area	
		Aquatic bed		ises small part of wetland's 1	
		1 Emergent Shrub	vegetation and is of mode significant part but is of lo	erate quality, or comprises a	
		Forest		ises significant part of wetland's 2	
		Mudflats		erate quality or comprises a small	
		Open water	part and is of high quality		
		Other		ignificant part, or more, of wetland's	3
		6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	quality	
		High (5)	Narrative Description of	Vegetation Quality	
		Moderately high(4)		predominance of nonnative or low	
		Moderate (3)	disturbance tolerant nativ		
		Moderately low (2) Low (1)		component of the vegetation, mod r disturbance tolerant native spp	
		x None (0)		species diversity moderate to	
		6c. Coverage of invasive plants. Refer		erallyw/o presence of rare	
		Table 1 ORAM long form for list. Add	threatened or endangered		
		or deduct points for coverage		e species, with nonnative spp high	
		x Extensive >75% cover (-5) Moderate 25-75% cover (-3)		nt native spp absent or virtually ersity and often, but not always,	
		Sparse 5-25% cover (-1)		atened, or endangered spp	
		Nearly absent <5% cover (0)			
		Absent (1)	Mudflat and Open Water		
		6d. Microtopography. Score all present using 0 to 3 scale.	0 Absent <0.1ha (0.247 acr 1 Low 0.1 to <1ha (0.247 to		
		1 Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47		
		Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or i		
		Standing dead >25cm (10in) dbh			
		Amphibian breeding pools	Microtopography Cover 0 Absent	Scale	
			Present very small amount	nts or if more common	
			of marginal quality		
			2 Present in moderate amo		
Category 1			quality or in small amount		
	20 GRANI	D TOTAL(max 100 pts)	3 Present in moderate or gr	reater amounts	
			and of highest quality		

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Site: FE Brownhe	elm-Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/9/2018
	•	Field Id:		
1	1 Metric 1. Wetland Area (size).	w-jbl-070918-04		
max 6 pts subt	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	0.14 acres		
10	<0.1 acres (0.04ha) (0 pts) Motric 2 Upland buffers and current	unding land use		
10	11 Metric 2. Upland buffers and surro	_		
max 14 pts. sub	total 2a. Calculate average buffer width. Select only one ar WIDE. Buffers average 50m (164ft) or more around wetla MEDIUM. Buffers average 25m to <50m (82 to <164ft) at NARROW. Buffers average 10m to <25m (32ft to <82ft) average 10m (<32ft) around to <25m (32ft to <82ft) around to <45m (32ft) around to	and perimeter (7) round wetland perimeter (4) around wetland perimeter (1)		
	Intensity of surrounding land use. Select one or d X VERY LOW. 2nd growth or older forest, prairie, savannal LOW. Old field (>10 years), shrubland, young second growth of the second gro	h, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow field. (3)		
6.5	17.5 Metric 3. Hydrology.			
max 30 pts. sub	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) X Recent or no recovery (1)	Check all disturbances observed x ditch pt tile	iman use (1)), complex (1) (1) on. Score one or dbl check. aturated (4) m (12in) (1)	
	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovered (6) X Recovering (3) Recent or no recovery (1)	score. average. Check all disturbances observed X mowing X st Grazing X se Check all disturbances observed X mowing X st Check all disturbances observed X selective cutting nrub/sapling removal erbaceous/aquatic bed remova edimentation edging rming utrient enrichment	ı	

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Site: FE Brownhelm-Beaver-Black River Rater(s): J. Lubbe	ers; A. Hanner	Date:	7/9/2018
•	Field Id:	•	
22	w-jbl-070918-04	<u> </u>	
subtotal this page	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
0 22 Metric 5. Special Wetlands.			
max 10 pts. subtotal Check all that apply and score as indica	ted.		
Bog (10)			
Fen (10)			
Old growth forest (10) Mature forested wetland (5)			
Lake Erie coastal/tributary wetland-unrestricted hydrole	ogy (10)		
Lake Erie coastal/tributary wetland-restricted hydrolog	y (5)		
Lake Plain Sand Prairies (Oak Openings) (10)			
Relict Wet Praires (10) Known occurrence state/federal threatened or endang	ored energies (10)		
Significant migratory songbird/water fowl habitat or usa			
Category 1 Wetland. See Question 5 Qualitative Ratin			
-3 19 Metric 6. Plant communities, inter	rspersion, microtopogi	raphy.	
max 20pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation Comm	nunity Cover Scale	
Score all present using 0 to 3 scale.	0 Absent or comprises <0.	1ha (0.2471 acres) contiguous area	
Aquatic bed		rises small part of wetland's 1	
1 Emergent		erate quality, or comprises a	
Shrub Forest	significant part but is of lo	rises significant part of wetland's 2	
Mudflats		erate quality or comprises a small	
Open water	part and is of high quality		
Other		ignificant part, or more, of wetland's 3	
6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	quality	
High (5)	Narrative Description of	f Vegetation Quality	
Moderately high(4)	Low spp diversity and/or	predominance of nonnative or low	
Moderate (3)	disturbance tolerant nativ		
Moderately low (2) Low (1)		component of the vegetation, mod or disturbance tolerant native spp	
x None (0)		species diversity moderate to	
6c. Coverage of invasive plants. Refer		erallyw/o presence of rare	
Table 1 ORAM long form for list. Add	threatened or endangere	• • • • • • • • • • • • • • • • • • • •	
or deduct points for coverage x Extensive >75% cover (-5)		e species, with nonnative spp high int native spp absent or virtually	
Moderate 25-75% cover (-3)		ersity and often, but not always,	
Sparse 5-25% cover (-1)	. 0 11	eatened, or endangered spp	
Nearly absent <5% cover (0)			
Absent (1)	Mudflat and Open Wate		
6d. Microtopography. Score all present using 0 to 3 scale.	0 Absent <0.1ha (0.247 ac 1 Low 0.1 to <1ha (0.247 to		
1 Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47		
Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or		
Standing dead >25cm (10in) dbh			
Amphibian breeding pools	Microtopography Cover 0 Absent	r Scale	
	Present very small amou	ints or if more common	
	of marginal quality		
0-1	2 Present in moderate amo		
Category 1	quality or in small amoun		
19 GRAND TOTAL(max 100 pts)	3 Present in moderate or g	reater amounts	
	and of highest quality		

ORAM_w-jbl-070918-04.xlsm | test_Field

Field Id: w-jbl-070918-05		
0.25 acres		
ling land use.		
sign score. Do not double check. erimeter (7) I wetland perimeter (4) Id wetland perimeter (1) Ind perimeter (0)		
e check and average. dlife area, etc. (7) forest. (5) servation tillage, new fallow field. (3) construction. (1)		
100 year floodplain (1) X Between stream/lake and other human Part of wetland/upland (e.g. forest), cor Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. S Semi- to permanently inundated/saturate Regularly inundated/saturated (3) Seasonally inundated (2) X Seasonally saturated in upper 30cm (1 or double check and average. Check all disturbances observed x ditch ditch dike X filling/g dike Weir stormwater input Other:	use (1) implex (1) core one or dbl check. ted (4) 2in) (1) ource (nonstormwater) irading ed/RR track	
opment.		
grazing herbac x clearcutting x sedime selective cutting dredgi woody debris removal farming	eous/aquatic bed removal entation ng	
	sign score. Do not double check. erimeter (7) I wetland perimeter (4) d wetland perimeter (1) not perimeter (0) d perimeter (0) d check and average. diffe area, etc. (7) forest. (5) forevation tillage, new fallow field. (3) forestruction. (1) 3b. Connectivity. Score all that apply 100 year floodplain (1) X Between stream/lake and other human Part of wetland/upland (e.g. forest), cor Part of riparian or upland corridor (1) 3d. Duration inundation/saturation. S Semi- to permanently inundated/saturated (3) Seasonally inundated/saturated in upper 30cm (1: or double check and average. Check all disturbances observed ditch ditch dike weir stormwater input Other: Depment. average. Check all disturbances observed x mowing grazing x clearcutting y selective cutting woody debris removal grazing farming woody debris removal farming	sign score. Do not double check. erimeter (7) Invetland perimeter (4) d wetland perimeter (1) and perimeter (0) a check and average. dilife area, etc. (7) forest. (5) Inversation tillage, new fallow field. (3) Inversation tillage, new fal

Site: FE E	Browr	nhelm-	Bea	aver-Black River	Rater(s):	J. Lubbers;	A. F	lanner	Date:	7/9/2018
					-			Field Id:	-	
		20.5	5					w-jbl-070918-05		
	•	subtotal this	page							
	0	20.5	5	Metric 5. Specia	al Wetlan	ds.				
max 10 pts.		subtotal	_	Check all that app	ly and scor	e as indicated.				
				Bog (10)	•					
			_	Fen (10)						
			-	Old growth forest (10) Mature forested wetland	(F)					
			-	Lake Erie coastal/tributar		stricted hydrology (1	0)			
				Lake Erie coastal/tributar			0)			
				Lake Plain Sand Prairies						
				Relict Wet Praires (10)						
			-	Known occurrence state				es (10)		
				Significant migratory son Category 1 Wetland. See						
	-4	16.5	5					on, microtopography.		
max 20pts.		subtotal	_	6a. Wetland Veget	ation Comr	nunities.		Vegetation Community Cove	er Scale	
				Score all present using 0	to 3 scale.			Absent or comprises < 0.1ha (0.2471 ac		
			L	Aquatic bed			1	Present and either comprises small par		
			1	Emergent Shrub				vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
			-	Forest			2	Present and either comprises significan	t nart of wetland's 2	
				Mudflats			-	vegetation and is of moderate quality or	•	
				Open water				part and is of high quality		
				Other			3	Present and comprises significant part,	or more, of wetland's 3	
				6b. horizontal (plan view	w) Interspersion	on.		vegetation and is of high quality		
				Select only one. High (5)				Narrative Description of Vegetation C	Quality	
				Moderately high(4)				Low spp diversity and/or predominance	•	
				Moderate (3)				disturbance tolerant native species		
				Moderately low (2)				Native spp are dominant component of		
			-	Low (1)				although nonnative and/or disturbance		
			Х	None (0) 6c. Coverage of invasiv	o niente Befo			can also be present, and species divers moderately high, but generallyw/o prese		
				Table 1 ORAM long form		'		threatened or endangered spp to	ence of fale	
				or deduct points for cove				A predominance of native species, with	nonnative spp high	
			Х	Extensive >75% cover (-	5)			and/or disturbance tolerant native spp a	bsent or virtually	
				Moderate 25-75% cover				absent, and high spp diversity and ofter		
			-	Sparse 5-25% cover (-1)				the presence of rare, threatened, or end	langered spp	
			-	Nearly absent <5% cove Absent (1)	1 (0)			Mudflat and Open Water Class Qualit	·v	
				6d. Microtopography.			0	Absent <0.1ha (0.247 acres)	,	
				Score all present using 0	to 3 scale.		1	Low 0.1 to <1ha (0.247 to 2.47 acres)		
				Vegetated hummucks/tu				Moderate 1 to <4ha (2.47 to 9.88 acres)	
			-	Coarse woody debris >1	. ,		3	High 4ha (9.88 acres) or more		
			-	Standing dead >25cm (1 Amphibian breeding pool				Microtopography Cover Scale		
			<u> </u>				0	Absent		
								Present very small amounts or if more of marginal quality	common	
							2	Present in moderate amounts, but not o	of highest	
Category 1								quality or in small amounts of highest quality		
	16.5	GRANI	D TC	OTAL(max 100 pts)			3	Present in moderate or greater amounts	3	
								and of highest quality		

ORAM_w-jbl-070918-05.xlsm | test_Field

Site: FE E	Brownhelm-	Beaver-Black River Rater(s): J. Lubb	ers; A. Hanner	Date:	7/9/2018
			Field Id:		
	1 1	Metric 1. Wetland Area (size).	w-jbl-070918-06		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	ac	res	
	10 11	Metric 2. Upland buffers and sur	rounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only on WIDE. Buffers average 50m (164ft) or more around v x MEDIUM. Buffers average 25m to <50m (82 to <164ft) NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	vetland perimeter (7) t) around wetland perimeter (4) 2ft) around wetland perimeter (1)	k.	
		VERY LOW. 2nd growth or older forest, prairie, savar LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, p HIGH. Urban, industrial, open pasture, row cropping,	nnah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow field. ((3)	
	6.5 17.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scom None or none apparent (12) Recovered (7) x Recovering (3) x Recent or no recovery (1)	Semi- to permanently inundate Regularly inundated/saturated X Seasonally inundated (2) X Seasonally saturated in upper core one or double check and average. Check all disturbances obs	er human use (1) prest), complex (1) idor (1) uration. Score one or dbl chec ted/saturated (4) d (3) r 30cm (12in) (1) erved point source (nonstormwater filling/grading	
	6 23.5	Metric 4. Habitat Alteration and D	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double cl None or none apparent (4) Recovered (3) x Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assi Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) x Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check (1) None or none apparent (9) Recovered (6) x Recovering (3) x Recent or no recovery (1)	and average. Check all disturbances obser X mowing grazing	ved shrub/sapling removal herbaceous/aquatic bed removed sedimentation dredging farming nutrient enrichment	oval

Site: FE B	rownhelm-	Beaver-Black River Rater(s): J. Lu	bbers; A. Hanner	Date:	7/9/2018
			Field Id:		
	23.5		w-jbl-070918-06		
	subtotal this	page			
	0 23.5	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as in	dicated.		
		Bog (10)			
		Fen (10) Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-unrestricted h			
		Lake Erie coastal/tributary wetland-restricted hyd	rology (5)		
		Lake Plain Sand Prairies (Oak Openings) (10) Relict Wet Praires (10)			
		Known occurrence state/federal threatened or en	dangered species (10)		
		Significant migratory songbird/water fowl habitat	or usage (10)		
		Category 1 Wetland. See Question 5 Qualitative	• ,	_	
	0 23.5	Metric 6. Plant communities, i	nterspersion, microtopograp	hy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communitie		,	
		Score all present using 0 to 3 scale.	0 Absent or comprises <0.1ha (a
		Aquatic bed 1 Emergent	1 Present and either comprises vegetation and is of moderate		
		Shrub	significant part but is of low qu		
		Forest	2 Present and either comprises		
		Mudflats	vegetation and is of moderate	quality or comprises a small	
		Open water Other	part and is of high quality 3 Present and comprises signific	cant part or more of wetland	'e 3
		6b. horizontal (plan view) Interspersion.	vegetation and is of high quali	•	3.0
		Select only one.	•	•	
		High (5)	Narrative Description of Veg		
		Moderately high(4) Moderate (3)	Low spp diversity and/or predodisturbance tolerant native spe		
		Moderately low (2)	Native spp are dominant comp		I
		Low (1)	although nonnative and/or dist		
		X None (0)	can also be present, and spec		
		6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add	moderately high, but generally threatened or endangered spp		
		or deduct points for coverage	A predominance of native spe		
		Extensive >75% cover (-5)	and/or disturbance tolerant na		
		Moderate 25-75% cover (-3)	absent, and high spp diversity		
		x Sparse 5-25% cover (-1) Nearly absent <5% cover (0)	the presence of rare, threaten	ed, or endangered spp	
		Absent (1)	Mudflat and Open Water Cla	ss Quality	
		6d. Microtopography.	0 Absent < 0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale.	1 Low 0.1 to <1ha (0.247 to 2.47		
		Vegetated hummucks/tussucks Coarse woody debris >15cm (6in)	2 Moderate 1 to <4ha (2.47 to 9 3 High 4ha (9.88 acres) or more		
		Standing dead >25cm (10in) dbh	5 Flight 4ha (5.00 acres) of more		
		Amphibian breeding pools	Microtopography Cover Sca	le	
		•	0 Absent	.,	
			 Present very small amounts o of marginal quality 	r it more common	
			Present in moderate amounts.		
Category 1			quality or in small amounts of	highest quality	
	23.5 GRANI	TOTAL(max 100 pts)	3 Present in moderate or greate	r amounts	
			and of highest quality		

ORAM_w-jbl-070918-06.xlsm | test_Field

Tield Id: Wetric 1. Wetland Area (size). w-jbl-070918-07		
Select one size class and assign score.		
>50 acres (>20.2ha) (6 pts) 0.19 acres 25 to <50 acres (10.1 to <20.2ha) (5 pts)		
10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)		
10 11 Metric 2. Upland buffers and surrounding land use.		
2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) X MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0) 2b. Intensity of surrounding land use. Select one or double check and average.		
x VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) x LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)		
6.5 17.5 Metric 3. Hydrology.		
x Recovering (3) tile x filling	an use (1) complex (1) Score one or dbl check. urated (4) (12in) (1) t source (nonstormwater) g/grading bed/RR track lging	
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average.		
None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) X mowing X Recent or no recovery (1) X Recent or no recovery (1) X clearcutting X sedi	b/sapling removal aceous/aquatic bed removal mentation Iging ing ent enrichment	

ORAM_w-jbl-070918-07.xlsm | test_Field 10/10/2018

Site: FE I	Browi	nhelm-	Bea	aver-Black River	Rater(s):	J. Lubbers;	A. F	lanner	Date:	7/9/2018
					. ,	,		Field Id:		
		23.5	5					w-jbl-070918-07		
		subtotal this	page							
	0	23.5	-	Metric 5. Speci	al Wetlan	de				
			1	-			ı			
max 10 pts.		subtotal	_	Check all that app	ily and scor	e as indicated				
			-	Fen (10)						
				Old growth forest (10)						
				Mature forested wetland						
				Lake Erie coastal/tributa			10)			
			-	Lake Erie coastal/tributal Lake Plain Sand Prairies						
				Relict Wet Praires (10)	(Oak Opening	5) (10)				
				Known occurrence state	federal threate	ned or endangered	specie	es (10)		
				Significant migratory son						
	_		4	Category 1 Wetland. See						
	0	23.5		Metric 6. Plant	communi	ties, intersp	ersi	on, microtopography.		
max 20pts.		subtotal		6a. Wetland Veget	ation Comr	nunities.		Vegetation Community Cove		
				Score all present using 0	to 3 scale.		0	Absent or comprises <0.1ha (0.2471 ac		
			4	Aquatic bed			1	Present and either comprises small par		
			<u> </u>	Emergent Shrub				vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
				Forest			2	Present and either comprises significan	t part of wetland's 2	
				Mudflats				vegetation and is of moderate quality or	•	
				Open water				part and is of high quality		
				Other			3	Present and comprises significant part,	or more, of wetland's 3	
				6b. horizontal (plan vie Select only one.	w) interspersion	on.		vegetation and is of high quality		
				High (5)				Narrative Description of Vegetation C	Quality	
				Moderately high(4)				Low spp diversity and/or predominance		
				Moderate (3)				disturbance tolerant native species		
			-	Moderately low (2) Low (1)				Native spp are dominant component of although nonnative and/or disturbance to		
			Х	None (0)				can also be present, and species divers		
				6c. Coverage of invasiv	e plants. Refe	r		moderately high, but generallyw/o prese		
				Table 1 ORAM long form	for list. Add			threatened or endangered spp to		
			_	or deduct points for cove				A predominance of native species, with		
			-	Extensive >75% cover (- Moderate 25-75% cover	,			and/or disturbance tolerant native spp a absent, and high spp diversity and ofter	•	
			×	Sparse 5-25% cover (-1)				the presence of rare, threatened, or end		
				Nearly absent <5% cove				, , , , , , ,	g	
				Absent (1)				Mudflat and Open Water Class Qualit	у	
				6d. Microtopography.				Absent <0.1ha (0.247 acres)		
				Score all present using (Vegetated hummucks/tu				Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres)	\	
				Coarse woody debris >1				High 4ha (9.88 acres) or more		
				Standing dead >25cm (1	0in) dbh			, ,		
				Amphibian breeding poo	ls			Microtopography Cover Scale		
								Absent Present very small amounts or if more of	common	
								of marginal quality	JOHN TON	
							2	Present in moderate amounts, but not o		
Category 1								quality or in small amounts of highest qu	uality	
	23.5	GRANI	D TC	OTAL(max 100 pts)			3	Present in moderate or greater amounts	3	
		_						and of highest quality		

ORAM_w-jbl-070918-07.xlsm | test_Field

Site: FE	Brownhelm-B	eaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/9/2018
			Field Id:		
	2 2	Metric 1. Wetland Area (size).	w-jbl-070918-08		
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)	0.76 acre	es	
		x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)			
	10 12	Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet x MEDIUM. Buffers average 25m to <50m (82 to <164ft) a NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1)		
	<u> </u>	2b. Intensity of surrounding land use. Select one or a x VERY LOW. 2nd growth or older forest, prairie, savanna x LOW. Old field (>10 years), shrubland, young second gr MODERATELY HIGH. Residential, fenced pasture, park HIGH. Urban, industrial, open pasture, row cropping, mi	ah, wildlife area, etc. (7) rowth forest. (5) x, conservation tillage, new fallow field. (3))	
	6.5 18.5	Metric 3. Hydrology.	ning, construction. (1)		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.	3b. Connectivity. Score all th	at annly	
		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.	100 year floodplain (1) x Between stream/lake and other Part of wetland/upland (e.g. for Part of riparian or upland corrid 3d. Duration inundation/satur Semi- to permanently inundate	r human use (1) est), complex (1) dor (1) ration. Score one or dbl check. d/saturated (4)	
	<u> </u>	>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scor None or none apparent (12) Recovered (7)	Regularly inundated/saturated x Seasonally inundated (2) x Seasonally saturated in upper 3 e one or double check and average. Check all disturbances obsel x ditch	30cm (12in) (1)	
		X Recovering (3) X Recent or no recovery (1)	tile X dike X weir stormwater input	-1	
	5 23.5	Metric 4. Habitat Alteration and De	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double checon None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7)	•		
		Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x			
		4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) X Recent or no recovery (1)	Check all disturbances observe	shrub/sapling removal herbaceous/aquatic bed remova	al
	23.5	OPAM v. 5.0 Field Form Quantitative Pating			

Site: FE	Brownhelm	-Beaver-Black River Rater(s): J. Lubbe	rs; A. Hanner	Date:	7/9/2018
		·	Field Id:	•	
	23.	5	w-jbl-070918-0	8	
	subtotal th	is page			
	0 23.	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as indicate	ted.		
		Bog (10)			
		Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5)	(40)		
		Lake Erie coastal/tributary wetland-unrestricted hydrology Lake Erie coastal/tributary wetland-restricted hydrology			
		Lake Plain Sand Prairies (Oak Openings) (10)	(3)		
		Relict Wet Praires (10)			
		Known occurrence state/federal threatened or endange	red species (10)		
		Significant migratory songbird/water fowl habitat or usa	ge (10)		
	01 04	Category 1 Wetland. See Question 5 Qualitative Rating	. ,		
	-2 21.	<u> </u>			
max 20pts.	subtotal	6a. Wetland Vegetation Communities.		nunity Cover Scale	
		Score all present using 0 to 3 scale. Aquatic bed		0.1ha (0.2471 acres) contiguous area prises small part of wetland's 1	
		1 Emergent		derate quality, or comprises a	
		Shrub	significant part but is of		
		Forest		prises significant part of wetland's 2	
		Mudflats		derate quality or comprises a small	
		Open water	part and is of high qualit		
		Other		significant part, or more, of wetland's	3
		6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	n quality	
		High (5)	Narrative Description	of Vegetation Quality	
		Moderately high(4)	Low spp diversity and/o	r predominance of nonnative or low	
		Moderate (3)	disturbance tolerant nat		
		Moderately low (2)		at component of the vegetation, mod	
		Low (1)	•	/or disturbance tolerant native spp	
		x None (0) 6c. Coverage of invasive plants. Refer		d species diversity moderate to nerallyw/o presence of rare	
		Table 1 ORAM long form for list. Add	threatened or endanger		
		or deduct points for coverage		ve species, with nonnative spp high	
		Extensive >75% cover (-5)		ant native spp absent or virtually	
		x Moderate 25-75% cover (-3)	absent, and high spp div	versity and often, but not always,	
		Sparse 5-25% cover (-1)	the presence of rare, the	reatened, or endangered spp	
		Nearly absent <5% cover (0)		01 0 114	
		Absent (1)	Mudflat and Open Wat 0 Absent < 0.1ha (0.247 a		
		6d. Microtopography. Score all present using 0 to 3 scale.	1 Low 0.1 to <1ha (0.247 a)		
		Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47		
		Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) o		
		Standing dead >25cm (10in) dbh	,		
		Amphibian breeding pools	Microtopography Cov	er Scale	
			Absent Present very small amo	unte or if more common	
			of marginal quality	unio oi ii illore comillori	
			2 Present in moderate am		
Category 1			quality or in small amou	nts of highest quality	
	21.5 GRAN	ID TOTAL(max 100 pts)	3 Present in moderate or	greater amounts	
			and of highest quality		

ORAM_w-jbl-070918-08.xlsm | test_Field

Site: FE	Brownhelm-E	Beaver-Black River Rater(s): J. Lubbe	ers; A. Hanner	Date:	7/10/2018
		-	Field Id:	-	
	1 1	Metric 1. Wetland Area (size).	w-jbl-071018-04		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.02 acres extends outside SC		
	4 5	Metric 2. Upland buffers and sur	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or more around w MEDIUM. Buffers average 25m to <50m (82 to <164ft) x NARROW. Buffers average 10m to <25m (32ft to <82 VERY NARROW. Buffers average <10m (<32ft) around	etland perimeter (7) c) around wetland perimeter (4) ft) around wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one of VERY LOW. 2nd growth or older forest, prairie, savant LOW. Old field (>10 years), shrubland, young second MODERATELY HIGH. Residential, fenced pasture, pax HIGH. Urban, industrial, open pasture, row cropping, in the content of the co	nah, wildlife area, etc. (7) growth forest. (5) ark, conservation tillage, new fallow field. (3)		
	5.5 10.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) < <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sc None or none apparent (12) Recovered (7) x Recovering (3) x Recent or no recovery (1)	Check all disturbances observed x ditch x produced years and the x produced years and x produced years are x produced years. X produced years are x produced years and x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years are x produced years are x produced years. Y produced years are x produced years are x produced years are x produced years are x produced years are x y produced years are x y produced years are x y y y y y y y y y y y y y y y y y y	uman use (1) t), complex (1) (1) ion. Score one or dbl check saturated (4)) cm (12in) (1)	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check and some or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assist Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovering (3) Recent or no recovery (1)	gn score. Ind average. Check all disturbances observed X mowing grazing X clearcutting X selective cutting woody debris removal	shrub/sapling removal herbaceous/aquatic bed remo sedimentation fredging arming hutrient enrichment	oval
	subtotal this pa	age ORAM v. 5.0 Field Form Quantitative Rating			

Site: FE	Brownhelm-	Beaver-Black River	Rater(s): J. Lubbers;	A. ŀ	lanner	Date:	7/10/2018
		-			Field Id:		
	15.5	1			w-jbl-071018-04		
	subtotal this	page					
	0 15.5	Metric 5. Specia	al Wetlands.				
max 10 pts.	subtotal	Check all that app	ly and score as indicated.				
		Bog (10)	•				
		Fen (10)					
		Old growth forest (10) Mature forested wetland	(5)				
			y wetland-unrestricted hydrology (1	10)			
			y wetland-restricted hydrology (5)	-,			
		Lake Plain Sand Prairies	(Oak Openings) (10)				
		Relict Wet Praires (10)			(40)		
			federal threatened or endangered s abird/water fowl habitat or usage (1		es (10)		
			Question 5 Qualitative Rating (-10				
	-2 13.5				on, microtopography.		
max 20pts.	subtotal	6a. Wetland Vegeta	ation Communities.		Vegetation Community Cove	er Scale	
		Score all present using 0	to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed		1	Present and either comprises small par		
		1 Emergent Shrub			vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
		Forest		2	Present and either comprises significan	t part of wetland's 2	
		Mudflats		_	vegetation and is of moderate quality or	•	
		Open water			part and is of high quality	·	
		Other		3	Present and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan view Select only one.	v) Interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation C	Duality	
		Moderately high(4)			Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of		
		x Low (1)			although nonnative and/or disturbance t		
		None (0) 6c. Coverage of invasive	e nlants Refer		can also be present, and species divers moderately high, but generallyw/o prese		
		Table 1 ORAM long form			threatened or endangered spp to	Shoc of fare	
		or deduct points for cover			A predominance of native species, with	nonnative spp high	
		x Extensive >75% cover (-	•		and/or disturbance tolerant native spp a	•	
		Moderate 25-75% cover	(-3)		absent, and high spp diversity and often		
		Sparse 5-25% cover (-1) Nearly absent <5% cover	(0)		the presence of rare, threatened, or end	iangered spp	
		Absent (1)	(5)		Mudflat and Open Water Class Qualit	:y	
		6d. Microtopography.			Absent < 0.1ha (0.247 acres)		
		Score all present using 0			Low 0.1 to <1ha (0.247 to 2.47 acres)		
		Vegetated hummucks/tus Coarse woody debris >15			Moderate 1 to <4ha (2.47 to 9.88 acres) High 4ha (9.88 acres) or more)	
		Standing dead >25cm (10	, ,	3	ingirana (3.00 acres) or more		
		Amphibian breeding pool			Microtopography Cover Scale		
					Absent		
				1	Present very small amounts or if more of marginal quality	common	
				2	Present in moderate amounts, but not o	of highest	
Category 1					quality or in small amounts of highest quality	•	
	13.5 GRAND	O TOTAL(max 100 pts)		3	Present in moderate or greater amounts	5	
					and of highest quality		

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Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/10/2018
		•	Field Id:	•	
	1 1	Metric 1. Wetland Area (size).	w-jbl-071018-01		
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 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.09 acres extends outside SC		
	5 6	Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wetl MEDIUM. Buffers average 25m to <50m (82 to <164ft) a X NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)		
		2b. Intensity of surrounding land use. Select one or of VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second gr MODERATELY HIGH. Residential, fenced pasture, park HIGH. Urban, industrial, open pasture, row cropping, mir	ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallow field. (3)		
	6.5 12.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) X Recent or no recovery (1)	Check all disturbances observed x ditch tile point dike x friling weir dred stormwater input Othe	sin use (1) complex (1) Score one or dbl check. rated (4) (12in) (1) source (nonstormwater) l/grading bed/RR track ging	
	5 17.5	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double chec None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) X Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) X Recent or no recovery (1)	d average. Check all disturbances observed x mowing x shrul grazing herb. x clearcutting x sedir selective cutting dred; woody debris removal farm		ıl
	auhtat - 1 th 1	ORAM v. 5.0 Field Form Quantitative Pating			

Site: FE I	Brown	nhelm-	Beaver-Black	River R	ater(s): J. Lubbe	ers; A. F	lanner	Date:	7/10/2018
					()	•	Field Id:		
		17.5	1				w-jbl-071018-01		
		subtotal this	- I page						
	0	17.5	-	Special \	Wetlands.				
max 10 pts.		subtotal	Check all tl	- hat apply a	and score as indica	ated.			
			Bog (10)	7					
			Fen (10)	-+ (40)					
			Old growth fore						
					etland-unrestricted hydro	logy (10)			
					etland-restricted hydrolog	y (5)			
					ak Openings) (10)				
			Relict Wet Prai	. ,	eral threatened or endang	nered enecia	ne (10)		
					d/water fowl habitat or us		3 (10)		
					estion 5 Qualitative Ratir				
	-3	14.5	Metric 6.	Plant co	mmunities, inte	rspersi	on, microtopography.		
max 20pts.		subtotal	6a. Wetland	d Vegetation	on Communities.		Vegetation Community Cove	er Scale	
			Score all prese	ent using 0 to 3	3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
			Aquatic bed 1 Emergent			1	Present and either comprises small part vegetation and is of moderate quality, or		
			Shrub				significant part but is of low quality	r comprises a	
			Forest			2	Present and either comprises significan	t part of wetland's 2	
			Mudflats				vegetation and is of moderate quality or	comprises a small	
			Open water				part and is of high quality		
			Other 6b. horizontal	(plan viow) le	ntorenoreion	3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
			Select only one	,	iterspersion.		vegetation and is of high quality		
			High (5)				Narrative Description of Vegetation C	Quality	
			Moderately hig	h(4)			Low spp diversity and/or predominance	of nonnative or low	
			Moderate (3) Moderately low	, (2)			disturbance tolerant native species Native spp are dominant component of	the vegetation med	
			Low (1)	/ (Z)			although nonnative and/or disturbance t		
			x None (0)				can also be present, and species divers		
			6c. Coverage				moderately high, but generallyw/o prese	ence of rare	
			Table 1 ORAM				threatened or endangered spp to		
			or deduct point x Extensive >759		2		A predominance of native species, with and/or disturbance tolerant native spp a		
			Moderate 25-7	. ,			absent, and high spp diversity and often	•	
			Sparse 5-25%				the presence of rare, threatened, or end		
			Nearly absent	<5% cover (0)					
			Absent (1) 6d. Microtopo	aranhu		0	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	у	
			Score all prese		3 scale	1	Low 0.1 to <1ha (0.247 acres)		
			Vegetated hum				Moderate 1 to <4ha (2.47 to 9.88 acres)	1	
			Coarse woody		. ,	3	High 4ha (9.88 acres) or more		
			Standing dead		dbh				
			Amphibian bree	eaing pools		0	Microtopography Cover Scale Absent		
						1	Present very small amounts or if more of	common	
							of marginal quality		
Category 1						2	Present in moderate amounts, but not o quality or in small amounts of highest qu		
	14.5	GRANI	O TOTAL(max 10	00 pts)		3	Present in moderate or greater amounts	-	
			•	. ,			and of highest quality		

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10/10/2018

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/10/2018
		•	Field Id:		
	2 2	Metric 1. Wetland Area (size).	w-jbl-071018-07		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.80 acres		
	8 10	Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet x MEDIUM. Buffers average 25m to <50m (82 to <164ft); NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one or VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second grand MODERATELY HIGH. Residential, fenced pasture, parl HIGH. Urban, industrial, open pasture, row cropping, mi	ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallow field. (3)		
	5.0 15.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Perceipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scor None or none apparent (12) Recovered (7) Recovering (3) Recent or no recovery (1)	Check all disturbances observed x ditch x tile dike x road t weir dredg stormwater input Check all disturbances observed x point: x point: x filling/ check all disturbances observed x point x poin	n use (1) pmplex (1) Score one or dbl check. ated (4) 12in) (1) source (nonstormwater) grading ped/RR track ing	
	6 21	Metric 4. Habitat Alteration and De	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) x Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check an None or none apparent (9) Recovered (6) x Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed X mowing grazing X sedim X clearcutting X selective cutting woody debris removal farmir		al
	21 subtotal this				

subtotal this page ORAIVI V. 5.0 FIEID FORM QUANTITATIVE RAUM

Site: FE E	Brownhelm-	Beaver-Black River	Rater(s): J. Lubbers;	A. F	lanner	Date:	7/10/2018
		-			Field Id:		
	21]			w-jbl-071018-07		
	subtotal this	page					
	0 21	Metric 5. Specia	al Wetlands.				
max 10 pts.	subtotal	Bog (10) Fen (10) Old growth forest (10) Mature forested wetland Lake Erie coastal/tributar	(5) y wetland-unrestricted hydrology (5) y wetland-unrestricted hydrology (5)				
	1 22	Significant migratory son Category 1 Wetland. See	federal threatened or endangered gbird/water fowl habitat or usage (e Question 5 Qualitative Rating (-10	10) 0)	es (10) on, microtopography.		
		4	ation Communities.	C131	Vegetation Community Cove	or Scalo	
max 20pts.	subtotal	Score all present using 0		0	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed Emergent Shrub		1	Present and either comprises small par vegetation and is of moderate quality, o significant part but is of low quality	t of wetland's 1	
		Forest		2	Present and either comprises significan	t part of wetland's 2	
		Mudflats			vegetation and is of moderate quality or		
		Open water			part and is of high quality		
		Other	- N Inda	3	Present and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan view Select only one.	w) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation C	Quality	
		Moderately high(4)			Low spp diversity and/or predominance		
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2)			Native spp are dominant component of		
		x Low (1)			although nonnative and/or disturbance t		
		None (0) 6c. Coverage of invasiv	a planta Bafar		can also be present, and species divers moderately high, but generallyw/o prese		
		Table 1 ORAM long form			threatened or endangered spp to	ence of rare	
		or deduct points for cove			A predominance of native species, with	nonnative spp high	
		Extensive >75% cover (-			and/or disturbance tolerant native spp a		
		x Moderate 25-75% cover	(-3)		absent, and high spp diversity and ofter	n, but not always,	
		Sparse 5-25% cover (-1)			the presence of rare, threatened, or end	langered spp	
		Nearly absent <5% cove	r (0)		M		
		Absent (1) 6d. Microtopography.		0	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	У	
		Score all present using 0	to 3 scale		Low 0.1 to <1ha (0.247 acres)		
		Vegetated hummucks/tus			Moderate 1 to <4ha (2.47 to 9.88 acres))	
		Coarse woody debris >1			High 4ha (9.88 acres) or more		
		Standing dead >25cm (1	0in) dbh				
		1 Amphibian breeding pool	s		Microtopography Cover Scale		
				1	Absent Present very small amounts or if more of	common	
				'	of marginal quality	JOHNHOIT	
				2	Present in moderate amounts, but not o	of highest	
Category 1					quality or in small amounts of highest qu	uality	
	22 GRAND	D TOTAL(max 100 pts)		3	Present in moderate or greater amounts	5	
					and of highest quality		

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Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubbe	rs; A. Hanner	Date:	7/10/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-jbl-071018-06		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.26 acres extends outisde SC		
	5 7	Metric 2. Upland buffers and surre	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or more around we MEDIUM. Buffers average 25m to <50m (82 to <164ft) NARROW. Buffers average 10m to <25m (32ft to <82f	etland perimeter (7) around wetland perimeter (4) t) around wetland perimeter (1) d wetland perimeter (0)		
		VERY LOW. 2nd growth or older forest, prairie, savanr x LOW. Old field (>10 years), shrubland, young second (x MODERATELY HIGH. Residential, fenced pasture, pal HIGH. Urban, industrial, open pasture, row cropping, m	nah, wildlife area, etc. (7) growth forest. (5) rk, conservation tillage, new fallow field. (3)		
	6.0 13.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sco None or none apparent (12) Recovered (7) x Recovering (3) Recent or no recovery (1)	Check all disturbances observed X	man use (1) complex (1) l) n. Score one or dbl check. turated (4)	
	9 22	Metric 4. Habitat Alteration and De	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double che None or none apparent (4) Recovered (3) Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assig Excellent (7) Very good (6) Good (5) X Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check at None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	nd average. Check all disturbances observed X mowing grazing X ser Learcutting X see woody debris removal fair	rub/sapling removal rbaceous/aquatic bed remov dimentation dging ming trient enrichment	ial
	22]			

Site: FE B	rownhelm	-Beaver-Black River	Rater(s): J. Lubbers; A	4. H	lanner	Date:	7/10/2018
					Field Id:	<u> </u>	
	22	2			w-jbl-071018-06		
	subtotal thi	is page					
	0 22	Metric 5. Specia	al Wetlands.				
max 10 pts.	subtotal	Check all that app	ly and score as indicated.				
		Bog (10)					
		Fen (10) Old growth forest (10)					
		Mature forested wetland	(5)				
			y wetland-unrestricted hydrology (1	0)			
			y wetland-restricted hydrology (5)				
		Lake Plain Sand Prairies Relict Wet Praires (10)	(Oak Openings) (10)				
		—	federal threatened or endangered s	necie	es (10)		
			gbird/water fowl habitat or usage (1)		(10)		
			Question 5 Qualitative Rating (-10))			
	1 23	Metric 6. Plant	communities, interspe	ersi	on, microtopography.		
max 20pts.	subtotal	6a. Wetland Veget	ation Communities.		Vegetation Community Cove	er Scale	
		Score all present using 0	to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed 1 Emergent		1	Present and either comprises small part		
		1 Emergent Shrub			vegetation and is of moderate quality, or significant part but is of low quality	r comprises a	
		Forest	•	2	Present and either comprises significant	t part of wetland's 2	
		Mudflats			vegetation and is of moderate quality or		
		Open water			part and is of high quality		
		Other	··· Interesponding	3	Present and comprises significant part,	or more, of wetland's 3	
		6b. horizontal (plan view Select only one.	w) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation C	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
		Moderate (3)			disturbance tolerant native species		
		Moderately low (2) x Low (1)			Native spp are dominant component of although nonnative and/or disturbance t		
		None (0)			can also be present, and species divers		
		6c. Coverage of invasiv	e plants. Refer		moderately high, but generallyw/o prese		
		Table 1 ORAM long form			threatened or endangered spp to		
		or deduct points for cove			A predominance of native species, with		
		Extensive >75% cover (-			and/or disturbance tolerant native spp a	•	
		Moderate 25-75% cover x Sparse 5-25% cover (-1)			absent, and high spp diversity and often the presence of rare, threatened, or end		
		Nearly absent <5% cove			are precented or rare, an outeriou, or one	angorou opp	
		Absent (1)			Mudflat and Open Water Class Qualit	у	
		6d. Microtopography.			Absent <0.1ha (0.247 acres)		
		Score all present using 0 Vegetated hummucks/tu			Low 0.1 to <1ha (0.247 to 2.47 acres) Moderate 1 to <4ha (2.47 to 9.88 acres)	<u> </u>	
		Coarse woody debris >1			High 4ha (9.88 acres) or more	<u></u>	
		Standing dead >25cm (1	, ,		,		
		Amphibian breeding poo	S		Microtopography Cover Scale		
				<u>0</u> 1	Absent Present very small amounts or if more of	rommon	
				1	of marginal quality	JOHIHOH	
			•	2	Present in moderate amounts, but not o	f highest	
Category 1					quality or in small amounts of highest qu		
	23 GRAN	ID TOTAL(max 100 pts)		3	Present in moderate or greater amounts	3	
					and of highest quality		

ORAM_w-jbl-071018-06.xlsm | test_Field

Site: FE	Brownhelm-	-Beaver-Black River Rater(s): J. Lubbe	ers; A. Hanner	Date:	7/10/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-jbl-071018-05		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts)	0.30 acres	S	
		10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)			
	5 7	<u> </u>	rounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or more around w	_		
		MEDIUM. Buffers average 25m to <50m (82 to <164f x NARROW. Buffers average 10m to <25m (32ft to <82 VERY NARROW. Buffers average <10m (<32ft) arou	2ft) around wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one of			
		VERY LOW. 2nd growth or older forest, prairie, savar x LOW. Old field (>10 years), shrubland, young second			
		x MODERATELY HIGH. Residential, fenced pasture, p. HIGH. Urban, industrial, open pasture, row cropping,	• .		
	6.5 13.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply.	3b. Connectivity. Score all tha	t apply.	
		High pH groundwater (5) Other groundwater (3)	100 year floodplain (1) Between stream/lake and other		
		x Precipitation (1) Seasonal/Intermittent surface water (3)	Part of wetland/upland (e.g. fore Part of riparian or upland corrido	,, , , ,	
		Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one.	3d. Duration inundation/satura Semi- to permanently inundated.		
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)	Regularly inundated/saturated (3 x Seasonally inundated (2)	3)	
		x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sc	x Seasonally saturated in upper 3	0cm (12in) (1)	
		None or none apparent (12)	Check all disturbances observ		
		Recovered (7) x Recovering (3)		point source (nonstormwater) filling/grading	
		Recent or no recovery (1)		road bed/RR track dredging	
		3		Other:	
	7 20.5	<u></u>	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double ch None or none apparent (4)	neck and average.		
		Recovered (3) x Recovering (2)			
		Recent or no recovery (1)			
		4b. Habitat development. Select only one and assi Excellent (7)	gn score.		
		Very good (6)			
		Good (5) Moderately good (4)			
		x Fair (3) Poor to fair (2)			
		Poor (1)			
		4c. Habitat alteration. Score one or double check a None or none apparent (9)	and average. Check all disturbances observed	d	
		Recovered (6) x Recovering (3)		shrub/sapling removal herbaceous/aquatic bed remov	ral
		x Recovering (3) x Recent or no recovery (1)	x clearcutting x	sedimentation	aı
			woody debris removal	dredging farming	
	20.5			nutrient enrichment	
	20.5	OPAM v. 5.0 Field Form Quantitative Pating			

Site: FE I	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	rs; A. Hanner	Date:	7/10/2018
		•	Field Id:	•	
	20.5	5	w-jbl-071018-05		
	subtotal this	s page			
	0 20.5	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as indicat	ed.		
max to pts.	Subtotal	Bog (10)	.cu.		
		Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5) Lake Erie coastal/tributary wetland-unrestricted hydrological coastal/tributary wetland-unrestricted hydrological coastal/tributary wetland-unrestricted hydrological coastal/tributary wetland-unrestricted hydrological coastal/tributary wetland-unrestricted	av (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 Significant migratory songbird/water fowl habitat or usage			
		Category 1 Wetland. See Question 5 Qualitative Rating			
	-1 19.5	Metric 6. Plant communities, inter	spersion, microtopogra	aphy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Commu	unity Cover Scale	
		Score all present using 0 to 3 scale.		na (0.2471 acres) contiguous area	
		Aquatic bed		ses small part of wetland's 1	
		1 Emergent Shrub	significant part but is of low	rate quality, or comprises a	
		Forest		ses significant part of wetland's 2	
		Mudflats	vegetation and is of moder	rate quality or comprises a small	
		Open water	part and is of high quality		
		Other6b. horizontal (plan view) Interspersion.	yegetation and is of high q	gnificant part, or more, of wetland's	3 3
		Select only one.	vegetation and is of high q	uanty	
		High (5)	Narrative Description of		
		Moderately high(4)	, , .	redominance of nonnative or low	
		Moderate (3) Moderately low (2)	disturbance tolerant native	e species omponent of the vegetation, mod	
		x Low (1)		disturbance tolerant native spp	
		None (0)		species diversity moderate to	
		6c. Coverage of invasive plants. Refer	moderately high, but gener		
		Table 1 ORAM long form for list. Add or deduct points for coverage	threatened or endangered	spp to species, with nonnative spp high	
		Extensive >75% cover (-5)		t native spp absent or virtually	
		x Moderate 25-75% cover (-3)		rsity and often, but not always,	
		Sparse 5-25% cover (-1)	the presence of rare, threa	tened, or endangered spp	
		Nearly absent <5% cover (0) Absent (1)	Mudflat and Open Water	Class Quality	
		6d. Microtopography.	0 Absent <0.1ha (0.247 acre		
		Score all present using 0 to 3 scale.	1 Low 0.1 to <1ha (0.247 to	2.47 acres)	
		Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47 t		
		Coarse woody debris >15cm (6in) Standing dead >25cm (10in) dbh	3 High 4ha (9.88 acres) or m	iore	
		Amphibian breeding pools	Microtopography Cover	Scale	
			0 Absent		
			 Present very small amount of marginal quality 	ts or if more common	
			2 Present in moderate amou	ints, but not of highest	
Category 1			quality or in small amounts		
	19.5 GRAN	D TOTAL(max 100 pts)	3 Present in moderate or gre	eater amounts	
			and of highest quality		

ORAM_w-jbl-071018-05.xlsm | test_Field

Site: FE	Brownhelm-B	eaver-Black River Rater(s): J. Lubbe	ers; A. Hanner	Date:	7/11/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-jbl-071118-01		
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) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.76 acres extends outside SC		
	8 10	Metric 2. Upland buffers and surr	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one WIDE. Buffers average 50m (164ft) or more around w x MEDIUM. Buffers average 25m to <50m (82 to <164ft NARROW. Buffers average 10m to <25m (32ft to <82 VERY NARROW. Buffers average <10m (<32ft) arour 2b. Intensity of surrounding land use. Select one o	e and assign score. Do not double check. etland perimeter (7)) around wetland perimeter (4) ft) around wetland perimeter (1) nd wetland perimeter (0)		
		VERY LOW. 2nd growth or older forest, prairie, savan x LOW. Old field (>10 years), shrubland, young second x MODERATELY HIGH. Residential, fenced pasture, pa HIGH. Urban, industrial, open pasture, row cropping, r	nah, wildlife area, etc. (7) growth forest. (5) rrk, conservation tillage, new fallow field. (3)		
	10.5 20.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) X Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) X 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch poi x tile x filier x dike x roa weir dre stormwater input Ott	nan use (1) complex (1)) n. Score one or dbl check turated (4)	
	9.5 30	Metric 4. Habitat Alteration and D	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double ch None or none apparent (4) X Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) X Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	check all disturbances observed mowing x shr grazing her x clearcutting x sec x selective cutting x dree x woody debris removal	ub/sapling removal baceous/aquatic bed remov imentation dging ming rient enrichment	val
	subtotal this pa	ge ORAM v. 5.0 Field Form Quantitative Rating			

ORAM_w-jbl-071118-01.xlsm | test_Field 10/10/2018

	rs; A. Hanner	Date:	7/11/2018
	Field Id:		
30	w-jbl-071118-01		
	,		
subtotal this page			
0 30 Metric 5. Special Wetlands.			
max 10 pts. subtotal Check all that apply and score as indicate	ted.		
Bog (10)			
Fen (10)			
Old growth forest (10) Mature forested wetland (5)			
Lake Erie coastal/tributary wetland-unrestricted hydrolo	gy (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 endange	ared appoint (10)		
Significant migratory songbird/water fowl habitat or usa			
Category 1 Wetland. See Question 5 Qualitative Rating			
8 38 Metric 6. Plant communities, inter	spersion, microtopogi	raphy.	
max 20pts. subtotal 6a. Wetland Vegetation Communities.	Vegetation Comm	nunity Cover Scale	
Score all present using 0 to 3 scale.		1ha (0.2471 acres) contiguous area	3
Aquatic bed		rises small part of wetland's 1	
1 Emergent 2 Shrub		erate quality, or comprises a	
2 Shrub Forest	significant part but is of lo	rises significant part of wetland's 2	
Mudflats		erate quality or comprises a small	
Open water	part and is of high quality		
Other		ignificant part, or more, of wetland	s 3
6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high	quality	
High (5)	Narrative Description of	f Vegetation Quality	
Moderately high(4)	Low spp diversity and/or	predominance of nonnative or low	
Moderate (3)	disturbance tolerant nativ		
x Moderately low (2) Low (1)		component of the vegetation, mod or disturbance tolerant native spp	
None (0)		species diversity moderate to	
6c. Coverage of invasive plants. Refer		erallyw/o presence of rare	
Table 1 ORAM long form for list. Add	threatened or endangere	• • •	
or deduct points for coverage Extensive >75% cover (-5)		e species, with nonnative spp high nt native spp absent or virtually	
Moderate 25-75% cover (-3)		ersity and often, but not always,	
x Sparse 5-25% cover (-1)		eatened, or endangered spp	
Nearly absent <5% cover (0)			
Absent (1)	Mudflat and Open Wate		
6d. Microtopography. Score all present using 0 to 3 scale.	0 Absent <0.1ha (0.247 ac 1 Low 0.1 to <1ha (0.247 to		
1 Vegetated hummucks/tussucks	2 Moderate 1 to <4ha (2.47		
1 Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or	more	
O Standing dead >25cm (10in) dbh		0.1	
2 Amphibian breeding pools	Microtopography Cover 0 Absent	r Scale	
	Present very small amou	ints or if more common	
	of marginal quality		
0-1	2 Present in moderate amo		
Category 2	quality or in small amoun		
38 GRAND TOTAL(max 100 pts)	3 Present in moderate or g	reater amounts	
	and of highest quality		

ORAM_w-jbl-071118-01.xlsm | test_Field

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/11/2018
		•	Field Id:		
	1 1	Metric 1. Wetland Area (size).	w-jbl-071118-02		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.14 acres		
	4 5	Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet MEDIUM. Buffers average 25m to <50m (82 to <164ft) a x NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one or of VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second gr x MODERATELY HIGH. Residential, fenced pasture, park HIGH. Urban, industrial, open pasture, row cropping, min	ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallow field. (3)		
	8.5 13.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) X Recent or no recovery (1)	Check all disturbances observed ditch x tile x filling x dike x road weir stormwater input Check all disturbances observed point point point ditch x filling dred other other	an use (1) complex (1) Score one or dbl check. rated (4) (12in) (1) It source (nonstormwater) J/grading bed/RR track ging	
	7 20.5	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing x shru grazing x sedi x selective cutting x dred x woody debris removal farm		al
	20.5	ODAM v. 5.0 Field Form Quantitative Reting			

Site: FE I	Brownh	nelm-l	Beaver-Black River	Rater(s): J. Lubbers	s; A. F	lanner	Date:	7/11/2018
				(-,	,	Field Id:		
		20.5				w-jbl-071118-02		
	su	ıbtotal this p	page					
	0	20.5	Metric 5. Speci	al Wetlands.				
max 10 pts.	SL	ubtotal	Check all that app	ly and score as indicate	ed.			
,			Bog (10)	•				
			Fen (10)					
			Old growth forest (10) Mature forested wetland	(5)				
				ry wetland-unrestricted hydrology	y (10)			
				ry wetland-restricted hydrology (5)			
			Lake Plain Sand Prairies	(Oak Openings) (10)				
			Relict Wet Praires (10)	/federal threatened or endangere	ad enacia	se (10)		
				gbird/water fowl habitat or usage		.3 (10)		
				Question 5 Qualitative Rating (
	-1	19.5	Metric 6. Plant	communities, inters	persi	on, microtopography.		
max 20pts.	SL	ubtotal	6a. Wetland Veget	ation Communities.		Vegetation Community Cove		
		1	Score all present using 0	to 3 scale.	0_	Absent or comprises <0.1ha (0.2471 ac		
			Aquatic bed 1 Emergent		1	Present and either comprises small part vegetation and is of moderate quality, or		
			Shrub			significant part but is of low quality	Comprises a	
			Forest		2	Present and either comprises significan	t part of wetland's 2	
			Mudflats			vegetation and is of moderate quality or	comprises a small	
			Open water			part and is of high quality	or more, of wotland's 2	
			Other 6b. horizontal (plan vie	w) Interspersion.	3	Present and comprises significant part, vegetation and is of high quality	or more, or welland's 3	
			Select only one.	,		regetation and to or riight quality		
			High (5)			Narrative Description of Vegetation C		
			Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
			Moderate (3) Moderately low (2)			disturbance tolerant native species Native spp are dominant component of	the vegetation, mod	
			X Low (1)			although nonnative and/or disturbance t		
			None (0)			can also be present, and species divers		
			6c. Coverage of invasiv			moderately high, but generallyw/o prese	ence of rare	
			Table 1 ORAM long form or deduct points for cove			threatened or endangered spp to A predominance of native species, with	nonnative enn high	
			Extensive >75% cover (-			and/or disturbance tolerant native spe		
			X Moderate 25-75% cover	*		absent, and high spp diversity and often	•	
			Sparse 5-25% cover (-1)			the presence of rare, threatened, or end	langered spp	
			Nearly absent <5% cove Absent (1)	r (0)		Mudflat and Open Water Class Qualit	v	
		l	6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	у	
			Score all present using 0	to 3 scale.		Low 0.1 to <1ha (0.247 to 2.47 acres)		
			Vegetated hummucks/tu			Moderate 1 to <4ha (2.47 to 9.88 acres)		
			Coarse woody debris >1		3	High 4ha (9.88 acres) or more		
			 Standing dead >25cm (1 Amphibian breeding poo 			Microtopography Cover Scale		
		ļ	,p brooding poo	- -	0	Absent		
						Present very small amounts or if more of marginal quality	common	
					2	Present in moderate amounts, but not o	f highest	
Category 1						quality or in small amounts of highest qu		
	19.5 G	RAND	TOTAL(max 100 pts)		3	Present in moderate or greater amounts	5	
						and of highest quality		

ORAM_w-jbl-071118-02.xlsm | test_Field

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/11/2018
		•	Field Id:	•	
	0 0	Metric 1. Wetland Area (size).	w-aeh-071218-01		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt)	0.07 acres		
	4 4	Solution Solution Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet MEDIUM. Buffers average 25m to <50m (82 to <164ft) a x NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around 2b. Intensity of surrounding land use. Select one or of VERY LOW. 2nd growth or older forest, prairie, savanna x LOW. Old field (>10 years), shrubland, young second gr	and assign score. Do not double check. land perimeter (7) around wetland perimeter (4) a round wetland perimeter (1) wetland perimeter (0) double check and average. ah, wildlife area, etc. (7) rowth forest. (5)		
		MODERATELY HIGH. Residential, fenced pasture, park X HIGH. Urban, industrial, open pasture, row cropping, mi			
	5.0 9.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Scor None or none apparent (12) Recovered (7) X Recovering (3) x Recent or no recovery (1)	Check all disturbances observed ditch poin tile X fillin dike X road	an use (1) complex (1) a. Score one or dbl check. urated (4) (12in) (1) tt source (nonstormwater) g/grading t bed/RR track	
	6.5 15.5	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) x Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing x shrugrazing x sedi x selective cutting ara y woody debris removal farm	ub/sapling removal paceous/aquatic bed remov mentation Iging ing ient enrichment	al
	15.5		<u> </u>		

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: FE E	Browr	nhelm-	-Bea	ver-Black River	Rater(s):	J. Lubbers;	A. F	lanner	Date:	7/11/2018
					. ,	,		Field Id:		
		15.5	5					w-aeh-071218-01		
		subtotal this	s page							
	0	15.5	_	Metric 5. Specia	al Wetlan	ds				
			1	•						
max 10 pts.		subtotal	_	Check all that app	ny and scor	e as maicated	•			
				Fen (10)						
				Old growth forest (10)						
			_	Mature forested wetland			40)			
			-	Lake Erie coastal/tributar Lake Erie coastal/tributar			10)			
				Lake Plain Sand Prairies						
				Relict Wet Praires (10)						
				Known occurrence state				es (10)		
				Significant migratory son Category 1 Wetland. See						
	-1	14.5	5					on, microtopography.		
max 20pts.		subtotal	_	6a. Wetland Veget				Vegetation Community Cove	er Scale	
				Score all present using 0	to 3 scale.		0	Absent or comprises <0.1ha (0.2471 ac		
				Aquatic bed			1	Present and either comprises small par		
			1	Emergent Shrub				vegetation and is of moderate quality, o significant part but is of low quality	r comprises a	
			-	Forest			2	Present and either comprises significan	t part of wetland's 2	
				Mudflats			_	vegetation and is of moderate quality or	•	
				Open water				part and is of high quality		
				Other		n .	3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
				Select only one.	w) interspersion	л.		vegetation and is of high quality		
				High (5)				Narrative Description of Vegetation C	Quality	
				Moderately high(4)				Low spp diversity and/or predominance	of nonnative or low	
			-	Moderate (3) Moderately low (2)				disturbance tolerant native species Native spp are dominant component of	the vegetation, med	
			х	Low (1)				although nonnative and/or disturbance t		
				None (0)				can also be present, and species divers		
				6c. Coverage of invasiv		r		moderately high, but generallyw/o prese	ence of rare	
				Table 1 ORAM long form				threatened or endangered spp to		
				or deduct points for cove Extensive >75% cover (-				A predominance of native species, with and/or disturbance tolerant native spp a		
			Х	Moderate 25-75% cover	,			absent, and high spp diversity and ofter	•	
				Sparse 5-25% cover (-1)				the presence of rare, threatened, or end		
			_	Nearly absent <5% cove	r (0)			M. 48-4 and Ones Weter Oles - Outli		
			_	Absent (1) 6d. Microtopography.			Λ	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	у	
				Score all present using 0	to 3 scale.			Low 0.1 to <1ha (0.247 to 2.47 acres)		
				Vegetated hummucks/tu			2	Moderate 1 to <4ha (2.47 to 9.88 acres)		
				Coarse woody debris >1	. ,		3	High 4ha (9.88 acres) or more		
			\vdash	Standing dead >25cm (1 Amphibian breeding poo				Microtopography Cover Scale		
			<u> </u>	priibian brecaing poo			0	Absent		
							1	Present very small amounts or if more of	common	
							2	of marginal quality Present in moderate amounts, but not c	f highest	
Category 1							_	quality or in small amounts of highest qu	•	
	14.5	GRANI	D TO	TAL(max 100 pts)			3	Present in moderate or greater amounts		
		ı						and of highest quality		

Site: FE	Brownhelm	-Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/11/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-aeh-071218-02		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.43 acres		
	7	Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one at WIDE. Buffers average 50m (164ft) or more around wetl x MEDIUM. Buffers average 25m to <50m (82 to <164ft) a NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	and perimeter (7) Iround wetland perimeter (4) around wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or or over the surrounding land use. Select one or or or over the surrounding land use. Select one or or or over the surrounding land use. Select one or or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or over the surrounding land use. Select one or or or over the surrounding land use. Select one or or or or or or or or or or or or or	nh, wildlife area, etc. (7) owth forest. (5) , conservation tillage, new fallow field. (3)		
	6.0 15.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch poi tile X fillir dike X roa	nan use (1) complex (1) n. Score one or dbl check turated (4) n (12in) (1) nt source (nonstormwater) ng/grading d bed/RR track	
	5.5 20.	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double chec None or none apparent (4) Recovered (3) X Recovering (2) x Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Poor to fair (2) x Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing x shr grazing her clearcutting x sective cutting x woody debris removal farm	ub/sapling removal baceous/aquatic bed remov dimentation dging ming rient enrichment	val
	20.	5			

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	rs; A. Hanner	Date:	7/11/2018
			Field Id:		
	20.5]	w-aeh-071218-02		
	subtotal this	-			
	0 20.5	Metric 5. Special Wetlands.			
max 10 pts.	subtotal	Check all that apply and score as indicat	ed.		
		Bog (10) Fen (10)			
		Old growth forest (10)			
		Mature forested wetland (5)			
		Lake Erie coastal/tributary wetland-unrestricted hydrolo			
		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 endange	red species (10)		
		Significant migratory songbird/water fowl habitat or usage	ge (10)		
		Category 1 Wetland. See Question 5 Qualitative Rating	• •		
	-1 19.5	Metric 6. Plant communities, inter	spersion, microtopograp	ohy.	
max 20pts.	subtotal	6a. Wetland Vegetation Communities.	Vegetation Commun	ity Cover Scale	
		Score all present using 0 to 3 scale.	0 Absent or comprises <0.1ha		a
		Aquatic bed	1 Present and either comprises		
		1 Emergent Shrub	vegetation and is of moderate significant part but is of low of		
		Forest		s significant part of wetland's 2	<u> </u>
		Mudflats		e quality or comprises a small	
		Open water	part and is of high quality		
		Other	3 Present and comprises signif		's 3
		6b. horizontal (plan view) Interspersion. Select only one.	vegetation and is of high qua	ility	
		High (5)	Narrative Description of Ve	getation Quality	
		Moderately high(4)		dominance of nonnative or low	,
		Moderate (3)	disturbance tolerant native sp		
		Moderately low (2)		nponent of the vegetation, mod	d
		x Low (1) None (0)	although nonnative and/or discan also be present, and spe		
		6c. Coverage of invasive plants. Refer	moderately high, but general		
		Table 1 ORAM long form for list. Add	threatened or endangered sp		
		or deduct points for coverage		ecies, with nonnative spp high	l
		x Extensive >75% cover (-5)	and/or disturbance tolerant n		
		Moderate 25-75% cover (-3) Sparse 5-25% cover (-1)	absent, and high spp diversit the presence of rare, threater		
		Nearly absent <5% cover (0)	are presented or rare, amount	nou, or oriumingorou opp	
		Absent (1)	Mudflat and Open Water Cl	ass Quality	
		6d. Microtopography.	0 Absent <0.1ha (0.247 acres)		
		Score all present using 0 to 3 scale. 1 Vegetated hummucks/tussucks	1 Low 0.1 to <1ha (0.247 to 2.4 2 Moderate 1 to <4ha (2.47 to 2.4		
		1 Coarse woody debris >15cm (6in)	3 High 4ha (9.88 acres) or mor		
		Standing dead >25cm (10in) dbh	3 (((((((((((((((((((((((((((((((((((((
		Amphibian breeding pools	Microtopography Cover Sc	ale	
			0 Absent		
			Present very small amounts of marginal quality	or it more common	
			Present in moderate amount	s, but not of highest	
Category 1			quality or in small amounts or		
	19.5 GRANI	D TOTAL(max 100 pts)	3 Present in moderate or great	er amounts	
			and of highest quality		

Site: FE	Brownhelm-l	Beaver-Black River Rater(s): J. Lubbers	s; A. Hanner	Date:	7/11/2018
		• • • • • • • • • • • • • • • • • • • •	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-aeh-071218-03		
max 6 pts	subtotal	Select one size class and assign score.			
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.62 acres		
	8 10	Metric 2. Upland buffers and surro	unding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet X MEDIUM. Buffers average 25m to <50m (82 to <164ft) a NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)		
		Nensity of surrounding land use. Select one or one of the surrounding land use. Select one or one of the surrounding land use. Select one or one of the surrounding land use. Select one or or or one of the surrounding land use. Select one or or or or or or or or or or or or or	ah, wildlife area, etc. (7) owth forest. (5) c, conservation tillage, new fallow field. (3)		
	12.5 22.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) X Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6 in) (3) X 0.4 to 0.7m (15.7 to 27.6 in) (2) <0.4m (<15.7 in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch tile	nan use (1) complex (1) n. Score one or dbl check. urated (4) (12in) (1) ht source (nonstormwater) g/grading d bed/RR track dging	
	8 30.5		•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) X Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing grazing kert her control of the control of th	ub/sapling removal baceous/aquatic bed remov imentation dging ning ient enrichment	ʻal
	30.5	page ORAM v. 5.0 Field Form Quantitative Rating			

ORAM_w-aeh-071218-03.xlsm | test_Field

Site: FE Br	ownheln	n-Bea	aver-Black River	Rater(s):	J. Lubbers; A	4. F	lanner	Date:	7/11/2018
				. ,	,		Field Id:		
	30	.5					w-aeh-071218-03		
	subtotal t	his page							
	0 30	.5	Metric 5. Specia	al Wetlan	ds.				
max 10 pts.	subtotal		Check all that app	lv and scor	e as indicated.				
			Bog (10)	,					
			Fen (10)						
			Old growth forest (10) Mature forested wetland	(5)					
			Lake Erie coastal/tributar		stricted hydrology (1	0)			
			Lake Erie coastal/tributar	y wetland-restr	icted hydrology (5)	,			
			Lake Plain Sand Prairies	(Oak Openings	s) (10)				
		-	Relict Wet Praires (10) Known occurrence state/	federal threater	and or endangered s	nacia	ne (10)		
			Significant migratory son				55 (10)		
			Category 1 Wetland. See						
	2 32	.5	Metric 6. Plant	communi	ties, interspe	ersi	on, microtopography.		
max 20pts.	subtotal		6a. Wetland Veget	ation Comr	nunities.		Vegetation Community Cove		
		_	Score all present using 0	to 3 scale.			Absent or comprises <0.1ha (0.2471 ac		
		1	Aquatic bed Emergent			1	Present and either comprises small par vegetation and is of moderate quality, o		
		1	Shrub				significant part but is of low quality	i comprises a	
			Forest			2	Present and either comprises significan	t part of wetland's 2	
			Mudflats				vegetation and is of moderate quality or	comprises a small	
			Open water			2	part and is of high quality	ar mara of watlandla 2	
			Other	 v) Interspersio	n.	3	Present and comprises significant part, vegetation and is of high quality	or more, or wetland's 3	
			Select only one.	.,	•••		rogetation and to or mgm quality		
			High (5)				Narrative Description of Vegetation C		
			Moderately high(4)				Low spp diversity and/or predominance	of nonnative or low	
		X	Moderate (3) Moderately low (2)				disturbance tolerant native species Native spp are dominant component of	the vegetation, mod	
			Low (1)				although nonnative and/or disturbance t		
			None (0)				can also be present, and species divers		
			6c. Coverage of invasiv		r		moderately high, but generallyw/o prese	ence of rare	
			Table 1 ORAM long form or deduct points for cove				threatened or endangered spp to A predominance of native species, with	nonnative snn high	
			Extensive >75% cover (-				and/or disturbance tolerant native spp a		
		Х	Moderate 25-75% cover				absent, and high spp diversity and ofter		
			Sparse 5-25% cover (-1)				the presence of rare, threatened, or end	langered spp	
		-	Nearly absent <5% cove Absent (1)	r (0)			Mudflat and Open Water Class Qualit	v	
			6d. Microtopography.			0	Absent <0.1ha (0.247 acres)	У	
			Score all present using 0	to 3 scale.			Low 0.1 to <1ha (0.247 to 2.47 acres)	_	
		1	Vegetated hummucks/tu				Moderate 1 to <4ha (2.47 to 9.88 acres))	
			Coarse woody debris >1			3	High 4ha (9.88 acres) or more		
			Standing dead >25cm (1 Amphibian breeding pool				Microtopography Cover Scale		
		ь		-		0	Absent		
						1	Present very small amounts or if more of	common	
						2	of marginal quality Present in moderate amounts, but not of	f highest	
Category 2						-	quality or in small amounts of highest qu		
3	2.5 GRAI	ND TO	OTAL(max 100 pts)			3	Present in moderate or greater amounts	S	
							and of highest quality		

Site: FE	Brownhelm-	Beaver-Black River Rater(s): J. Lubber	s; A. Hanner	Date:	7/11/2018
		•	Field Id:	•	
	1 1	Metric 1. Wetland Area (size).	w-jbl-071118-04		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.04 acres extends outside SC		
	3 4	Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one a WIDE. Buffers average 50m (164ft) or more around wet MEDIUM. Buffers average 25m to <50m (82 to <164ft) a X NARROW. Buffers average 10m to <25m (32ft to <82ft) VERY NARROW. Buffers average <10m (<32ft) around	land perimeter (7) around wetland perimeter (4) around wetland perimeter (1) wetland perimeter (0)		
		2b. Intensity of surrounding land use. Select one or of VERY LOW. 2nd growth or older forest, prairie, savanna LOW. Old field (>10 years), shrubland, young second gr MODERATELY HIGH. Residential, fenced pasture, park HIGH. Urban, industrial, open pasture, row cropping, min	ah, wildlife area, etc. (7) rowth forest. (5) c, conservation tillage, new fallow field. (3)		
	6.0 10.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) X Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) X <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovered (7) X Recovering (3) Recent or no recovery (1)	Check all disturbances observed ditch x tile x fillin x dike weir dree stormwater input Check all disturbances observed a poir x fillin ditch x fillin dree dree oth	an use (1) complex (1) h. Score one or dbl check. urated (4) (12in) (1) ht source (nonstormwater) g/grading bed/RR track dging	
	7 17	Metric 4. Habitat Alteration and De	velopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assign Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and None or none apparent (9) Recovered (6) X Recovering (3) Recent or no recovery (1)	d average. Check all disturbances observed mowing grazing x shru grazing x sed x selective cutting x woody debris removal farm	ub/sapling removal paceous/aquatic bed remova imentation dging iing ient enrichment	al
	17	OPAM v. 5.0 Field Form Quantitative Pating			

Site: FE B	rownhelm-	Beaver-Black River	Rater(s): J. Lubbers;	A. F	lanner	Date:	7/11/2018
			(-,		Field Id:		
	17	7			w-jbl-071118-04		
	subtotal this	page					
	0 17	Metric 5. Speci	al Wetlands.				
max 10 pts.	subtotal	Check all that app	ly and score as indicated.				
		Bog (10)	•				
		Fen (10) Old growth forest (10)					
		Mature forested wetland	(5)				
			ry wetland-unrestricted hydrology (1	10)			
			ry wetland-restricted hydrology (5)				
		Lake Plain Sand Prairies	(Oak Openings) (10)				
		Relict Wet Praires (10)	federal threatened or endangered s	snecie	25 (10)		
			gbird/water fowl habitat or usage (1		35 (10)		
			Question 5 Qualitative Rating (-10				
	1 18	Metric 6. Plant	communities, interspe	ersi	on, microtopography.		
max 20pts.	subtotal	6a. Wetland Veget	ation Communities.		Vegetation Community Cove	er Scale	
		Score all present using 0	to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed 1 Emergent		1	Present and either comprises small par vegetation and is of moderate quality, o		
		Shrub			significant part but is of low quality	r comprises a	
		Forest		2	Present and either comprises significan	t part of wetland's 2	
		Mudflats			vegetation and is of moderate quality or	comprises a small	
		Open water			part and is of high quality		
		Other 6b. horizontal (plan vie	w) Interepersion	3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
		Select only one.	w) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation C	Quality	
		Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
		Moderate (3)			disturbance tolerant native species	the vegetation, med	
		Moderately low (2) x Low (1)			Native spp are dominant component of although nonnative and/or disturbance to		
		None (0)			can also be present, and species divers		
		6c. Coverage of invasiv			moderately high, but generallyw/o prese	ence of rare	
		Table 1 ORAM long form			threatened or endangered spp to		
		or deduct points for cover			A predominance of native species, with and/or disturbance tolerant native spp a		
		Moderate 25-75% cover	•		absent, and high spp diversity and ofter	•	
		x Sparse 5-25% cover (-1)			the presence of rare, threatened, or end		
		Nearly absent <5% cove	r (0)				
		Absent (1) 6d. Microtopography.		0	Mudflat and Open Water Class Qualit Absent <0.1ha (0.247 acres)	у	
		Score all present using 0	to 3 scale		Low 0.1 to <1ha (0.247 acres)		
		Vegetated hummucks/tu			Moderate 1 to <4ha (2.47 to 9.88 acres))	
		Coarse woody debris >1	, ,	3	High 4ha (9.88 acres) or more		
		Standing dead >25cm (1					
		Amphibian breeding poo	S	Λ	Microtopography Cover Scale Absent		
				1	Present very small amounts or if more of	common	
					of marginal quality		
Category 1				2	Present in moderate amounts, but not of quality or in small amounts of highest quality		
Category 1	18 GDANI	D TOTAL(max 100 pts)					
	10 GRANI	D TOTAL(IIIAX 100 PIS)		3	Present in moderate or greater amounts		
					and of highest quality		

ORAM_w-jbl-071118-04.xlsm | test_Field 10/10/2018

Site: FE	Brownhelm-B	Beaver-Black River Rater(s): J. Lubbers	; A. Hanner	Date:	7/11/2018
			Field Id:	-	
	1 1	Metric 1. Wetland Area (size).	w-jbl-071118-03		
max 6 pts	subtotal	Select one size class and assign score. >50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2ha) (5 pts) 10 to <25 acres (4 to <10.1ha) (4 pts) 3 to <10 acres (1.2 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	0.13 acres		
	3 4	Metric 2. Upland buffers and surrou	ınding land use.		
max 14 pts.	subtotal	Calculate average buffer width. Select only one and WIDE. Buffers average 50m (164ft) or more around wetlan MEDIUM. Buffers average 25m to <50m (82 to <164ft) ard NARROW. Buffers average 10m to <25m (32ft to <82ft) a	nd perimeter (7) ound wetland perimeter (4) round wetland perimeter (1)		
		2b. Intensity of surrounding land use. Select one or do VERY LOW. 2nd growth or older forest, prairie, savannah LOW. Old field (>10 years), shrubland, young second grov X MODERATELY HIGH. Residential, fenced pasture, park, X HIGH. Urban, industrial, open pasture, row cropping, minit	, wildlife area, etc. (7) wth forest. (5) conservation tillage, new fallow field. (3)		
	5.0 9.0	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) 3e. Modifications to natural hydrologic regime. Score None or none apparent (12) Recovering (3) X Recent or no recovery (1)	Check all disturbances observed	an use (1) complex (1) a. Score one or dbl check. urated (4) (12in) (1) t source (nonstormwater) g/grading l bed/RR track lging	
	4 13	Metric 4. Habitat Alteration and Dev	•		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double check None or none apparent (4) Recovered (3) Recovering (2) X Recent or no recovery (1) 4b. Habitat development. Select only one and assign s Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and solve or none apparent (9) Recovered (6) Recovered (6) Recovering (3) X Recent or no recovery (1)	average. Check all disturbances observed mowing	b/sapling removal vaceous/aquatic bed remove mentation iging ing ent enrichment	al
	13	OPAM v. 5.0 Field Form Quantitative Pating			

ORAM_w-jbl-071118-03.xlsm | test_Field 10/10/2018

Site: FE B	rownheln	n-Beaver-Black Rive	r Rater(s): J. Lubbe	rs; A. F	lanner	Date:	7/11/2018
<u>- </u>					Field Id:		
	1	13			w-jbl-071118-03		
	subtotal t	this page					
	0 1	Metric 5. Spec	cial Wetlands.				
max 10 pts.	subtotal	Check all that a	oply and score as indica	ited.			
		Bog (10)	., ,				
		Fen (10)					
		Old growth forest (10)	- d (E)				
		Mature forested wetla	าต (ธ) itary wetland-unrestricted hydrolo	oay (10)			
			tary wetland-restricted hydrology				
			ies (Oak Openings) (10)				
		Relict Wet Praires (10			(4.5)		
			te/federal threatened or endange ongbird/water fowl habitat or usa		es (10)		
			See Question 5 Qualitative Rating				
	0 1	Metric 6. Plan	t communities, inter	rspersi	on, microtopography.		
max 20pts.	subtotal	6a. Wetland Veg	etation Communities.		Vegetation Community Cove	er Scale	
		Score all present using	g 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 ac		
		Aquatic bed		1	Present and either comprises small part		
		1 Emergent Shrub			vegetation and is of moderate quality, or significant part but is of low quality	r comprises a	
		Forest		2	Present and either comprises significant	t part of wetland's 2	
		Mudflats			vegetation and is of moderate quality or		
		Open water			part and is of high quality		
		Other 6b. horizontal (plan v		3	Present and comprises significant part, vegetation and is of high quality	or more, of wetland's 3	
		Select only one.	new) interspersion.		vegetation and is of high quality		
		High (5)			Narrative Description of Vegetation C	uality	
		Moderately high(4)			Low spp diversity and/or predominance	of nonnative or low	
		Moderate (3)			disturbance tolerant native species	the vegetation med	
		Moderately low (2) Low (1)			Native spp are dominant component of although nonnative and/or disturbance t		
		X None (0)			can also be present, and species divers		
		6c. Coverage of inva			moderately high, but generallyw/o prese	nce of rare	
		Table 1 ORAM long for			threatened or endangered spp to	e 1:1	
		or deduct points for co			A predominance of native species, with and/or disturbance tolerant native spp a		
		Moderate 25-75% cov	* *		absent, and high spp diversity and often	•	
		x Sparse 5-25% cover (the presence of rare, threatened, or end		
		Nearly absent <5% co	ver (0)				
		Absent (1) 6d. Microtopography		0	Mudflat and Open Water Class Quality Absent <0.1ha (0.247 acres)	у	
		Score all present using		1	Low 0.1 to <1ha (0.247 acres)		
		Vegetated hummucks		2	Moderate 1 to <4ha (2.47 to 9.88 acres)		
		Coarse woody debris	, ,	3	High 4ha (9.88 acres) or more		
		Standing dead >25cm			Microtonography Cover Scale		
		Amphibian breeding p	UUIO	0	Microtopography Cover Scale Absent		
				1	Present very small amounts or if more of	common	
					of marginal quality	f highoot	
Category 1				2	Present in moderate amounts, but not o quality or in small amounts of highest qu		
	13 GRA	ND TOTAL(max 100 pts	:)	3	Present in moderate or greater amounts	-	
		,	•		and of highest quality		
					3 1 9		

ORAM_w-jbl-071118-03.xlsm | test_Field 10/10/2018

Field Id: 1 1 Metric 1. Wetland Area (size). w-jbl-071118-05	
1 1 Motric 1 Wotland Area (cize) w ibl 071119 05	
I I Wettic I. Wettaliu Alea (Size). W-JDI-07 I I 10-05	
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 (0.12 to <4ha) (3 pts) 0.3 to <3 acres (0.12 to <1.2ha) (2pts) x 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	
8 9 Metric 2. Upland buffers and surrounding land use.	
2a. Calculate average buffer width. Select only one and assign score. Do not double check. WIDE. Buffers average 50m (164ft) or more around wetland perimeter (7) X MEDIUM. Buffers average 25m to <50m (82 to <164ft) around wetland perimeter (4) NARROW. Buffers average 10m to <25m (32ft to <82ft) around wetland perimeter (1) VERY NARROW. Buffers average <10m (<32ft) around wetland perimeter (0)	
Zb. Intensity of surrounding land use. Select one or double check and average. VERY LOW. 2nd growth or older forest, prairie, savannah, wildlife area, etc. (7) X LOW. Old field (>10 years), shrubland, young second growth forest. (5) X MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1)	
11.0 20.0 Metric 3. Hydrology.	
Max 30 pts. 3a. Sources of Water. Score all that apply. High pH groundwater (5)	stormwater)
### Asubstrate disturbance. Score one or double check and average. None or none apparent (4)	ic bed removal

ORAM_w-jbl-071118-05.xlsm | test_Field 10/10/2018

Site: FE B	rowr	nhelm-	Bea	aver-Black River	Rater(s): J. Lul	bbers; A. I	Hanner	Date:	7/11/2018
					(-, -, -, -,	,	Field Id:		
		30	1				w-jbl-071118-05		
		subtotal this	page						
	0	30	Ī	Metric 5. Specia	al Wetlands.				
max 10 pts.		subtotal		Check all that app	oly and score as inc	dicated.			
				Bog (10)	•				
				Fen (10)					
			-	Old growth forest (10) Mature forested wetland	(5)				
					ry wetland-unrestricted h	vdrology (10)			
					ry wetland-restricted hydr				
				Lake Plain Sand Prairies	(Oak Openings) (10)				
			-	Relict Wet Praires (10)	<i>(</i> 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		(40)		
			-		/federal threatened or en- igbird/water fowl habitat o		es (10)		
				Category 1 Wetland. See					
	2	32					on, microtopography.		
max 20pts.		subtotal	-	6a. Wetland Veget	ation Communities	s.	Vegetation Community Cov	er Scale	
				Score all present using 0	to 3 scale.	0	Absent or comprises <0.1ha (0.2471 a		
				Aquatic bed		1	Present and either comprises small pa		
			-	Emergent Shrub			vegetation and is of moderate quality, significant part but is of low quality	or comprises a	
			2			2	Present and either comprises significa	nt nart of wetland's 2	
			_	Mudflats		-	vegetation and is of moderate quality of		
				Open water			part and is of high quality		
				Other		3	Present and comprises significant part	, or more, of wetland's 3	
				6b. horizontal (plan vie	w) Interspersion.		vegetation and is of high quality		
				Select only one. High (5)			Narrative Description of Vegetation	Quality	
				Moderately high(4)			Low spp diversity and/or predominance		
				Moderate (3)			disturbance tolerant native species		
			Х	Moderately low (2)			Native spp are dominant component o		
			-	Low (1)			although nonnative and/or disturbance		
				None (0) 6c. Coverage of invasive	o planta Bafar		can also be present, and species diver moderately high, but generallyw/o pres		
				Table 1 ORAM long form			threatened or endangered spp to	ence of rare	
				or deduct points for cove			A predominance of native species, with	n nonnative spp high	
				Extensive >75% cover (-	-5)		and/or disturbance tolerant native spp	absent or virtually	
			Х	Moderate 25-75% cover			absent, and high spp diversity and often		
			-	Sparse 5-25% cover (-1) Nearly absent <5% cove			the presence of rare, threatened, or en	dangered spp	
			-	Absent (1)	1 (0)		Mudflat and Open Water Class Qual	itv	
				6d. Microtopography.		0	Absent <0.1ha (0.247 acres)	,	
				Score all present using 0			Low 0.1 to <1ha (0.247 to 2.47 acres)		
			L.	Vegetated hummucks/tu			Moderate 1 to <4ha (2.47 to 9.88 acres	s)	
			1	Coarse woody debris >1	, ,	3	High 4ha (9.88 acres) or more		
			\vdash	Standing dead >25cm (1 Amphibian breeding poor			Microtopography Cover Scale		
			<u> </u>	1t	: =	0	Absent		
						1	Present very small amounts or if more	common	
						2	of marginal quality Present in moderate amounts, but not	of highest	
Category 2						_	quality or in small amounts of highest of		
	32	GRANI	о то	TAL(max 100 pts)		3	Present in moderate or greater amoun	ts	
							and of highest quality		

ORAM_w-jbl-071118-05.xlsm | test_Field

Site: FE	Brownhelm-	Beaver-Black River Rater(s): T. Lipp; A	A. Hanner	Date:	10/8/2018
		•	Field Id:	•	
	2 2	Metric 1. Wetland Area (size).	w-jbl-070918-01		
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) x 0.3 to <3 acres (0.12 to <1.2ha) (2pts) 0.1 to <0.3 acres (0.04 to <0.12ha) (1 pt) <0.1 acres (0.04ha) (0 pts)	1.50 acres extends outside SC		
	5 7	Metric 2. Upland buffers and surro	ounding land use.		
max 14 pts.	subtotal	2a. Calculate average buffer width. Select only one: WIDE. Buffers average 50m (164ft) or more around we MEDIUM. Buffers average 25m to <50m (82 to <164ft) x NARROW. Buffers average 10m to <25m (32ft to <82ft VERY NARROW. Buffers average <10m (<32ft) around 2b. Intensity of surrounding land use. Select one or VERY LOW. 2nd growth or older forest, prairie, savann	etland perimeter (7) around wetland perimeter (4) c) around wetland perimeter (1) d wetland perimeter (0) double check and average.		
		LOW. Old field (>10 years), shrubland, young second g MODERATELY HIGH. Residential, fenced pasture, par HIGH. Urban, industrial, open pasture, row cropping, m	growth forest. (5) rk, conservation tillage, new fallow field. (3)		
	7.5 14.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply. High pH groundwater (5) Other groundwater (3) x Precipitation (1) Seasonal/Intermittent surface water (3) Perennial surface water (lake or stream) (5) 3c. Maximum water depth. Select one. >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2) x <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic regime. Sco None or none apparent (12) Recovered (7) x Recovering (3) Recent or no recovery (1)	Check all disturbances observed X ditch poir tile X fillin dike X road	an use (1) complex (1) h. Score one or dbl check. urated (4) (12in) (1) tt source (nonstormwater) g/grading b bed/RR track	
	6 20.5	Metric 4. Habitat Alteration and De	evelopment.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or double che None or none apparent (4) Recovered (3) X Recovering (2) Recent or no recovery (1) 4b. Habitat development. Select only one and assig Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) X Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check an None or none apparent (9) Recovered (6) X Recovering (3) X Recent or no recovery (1)	n score. Check all disturbances observed X mowing grazing X clearcutting X sed X selective cutting woody debris removal	ub/sapling removal paceous/aquatic bed remov imentation tging int enrichment	al
	20.5]			

subtotal this page ORAM v. 5.0 Field Form Quantitative Rating

Site: FE E	3rowr	nhelm-	Bea	aver-Black River	Rater(s):	T. Lipp; A. H	anı	ner	Date:	10/8/2018
								Field Id:		
		20.5	5					w-jbl-070918-01		
		subtotal this	page							
	0	20.5	5	Metric 5. Specia	al Wetlan	ds.				
max 10 pts.		subtotal	_	Check all that app	lv and scor	e as indicated.				
				Bog (10)	.,					
				Fen (10)						
				Old growth forest (10)						
				Mature forested wetland Lake Erie coastal/tributar		atriated budralagy (1	0)			
				Lake Erie coastal/tributar			0)			
				Lake Plain Sand Prairies						
				Relict Wet Praires (10)						
				Known occurrence state/				es (10)		
				Significant migratory son Category 1 Wetland. See						
	-2	18.5	5					on, microtopography.		
max 20pts.		subtotal	_	6a. Wetland Veget				Vegetation Community Cove	er Scale	
				Score all present using 0	to 3 scale.		0	Absent or comprises <0.1ha (0.2471 ac	res) contiguous area	
				Aquatic bed			1	Present and either comprises small par		
			1	Emergent				vegetation and is of moderate quality, o	r comprises a	
				Shrub Forest			2	significant part but is of low quality Present and either comprises significan	t part of wetland's 2	
				Mudflats			_	vegetation and is of moderate quality or	•	
				Open water				part and is of high quality		
				Other			3	Present and comprises significant part,	or more, of wetland's 3	
				6b. horizontal (plan view	w) Interspersion	on.		vegetation and is of high quality		
				Select only one. High (5)				Narrative Description of Vegetation 0	Quality	
				Moderately high(4)				Low spp diversity and/or predominance	•	
				Moderate (3)				disturbance tolerant native species		
				Moderately low (2)				Native spp are dominant component of		
				Low (1)				although nonnative and/or disturbance		
			Х	None (0) 6c. Coverage of invasiv	o planta Bafa			can also be present, and species divers moderately high, but generallyw/o prese		
				Table 1 ORAM long form				threatened or endangered spp to	ence of rare	
				or deduct points for cove				A predominance of native species, with	nonnative spp high	
				Extensive >75% cover (-	5)			and/or disturbance tolerant native spp a	bsent or virtually	
			Х	Moderate 25-75% cover				absent, and high spp diversity and ofter		
				Sparse 5-25% cover (-1) Nearly absent <5% cover				the presence of rare, threatened, or end	langered spp	
				Absent (1)	(0)			Mudflat and Open Water Class Qualit	v	
				6d. Microtopography.			0	Absent < 0.1ha (0.247 acres)	•	
				Score all present using 0				Low 0.1 to <1ha (0.247 to 2.47 acres)		
				Vegetated hummucks/tus				Moderate 1 to <4ha (2.47 to 9.88 acres)	
				Coarse woody debris >18 Standing dead >25cm (1)	. ,		3	High 4ha (9.88 acres) or more		
				Amphibian breeding pool				Microtopography Cover Scale		
				Tb	-		0	Absent		
							1	Present very small amounts or if more of marginal quality	common	
							2	Present in moderate amounts, but not o	of highest	
Category 1		1						quality or in small amounts of highest q		
	18.5	GRAN	D TC	OTAL(max 100 pts)			3	Present in moderate or greater amounts	S	
								and of highest quality		

APPENDIX C OEPA QHEI AND HHEI STREAM FORMS

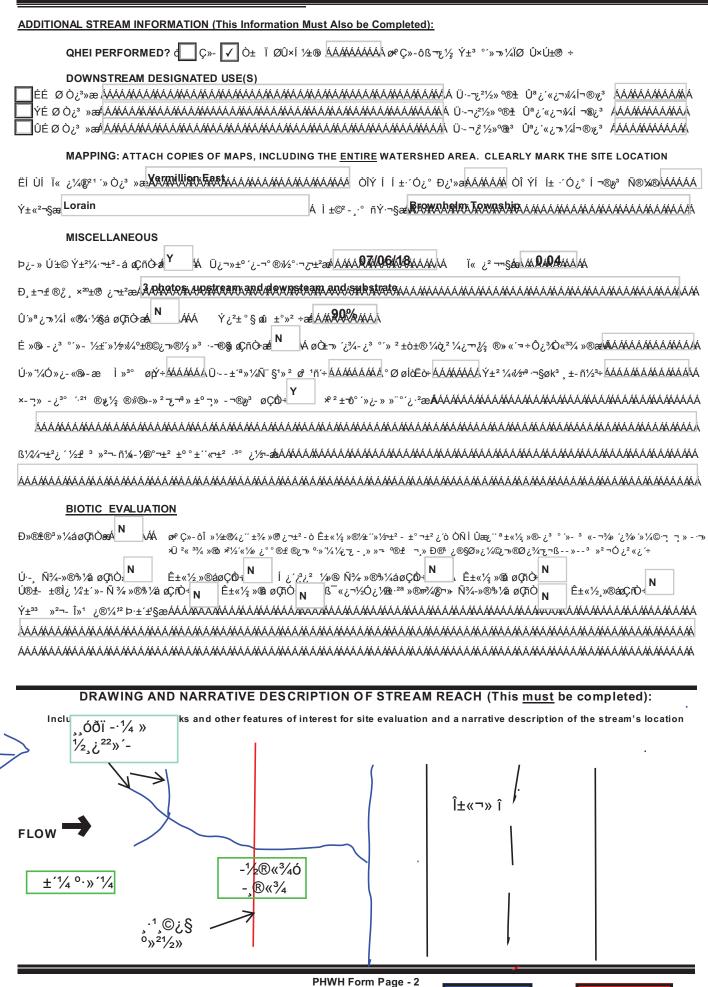


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HHEI Score (sum of metrics 1, 2, 3):

25	

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ĈŨĊŨĬŒ ÑÚ ÎÎ ÎÛB Ć ÎÛ BÝŒ ϕ ϕ AÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁ	
amaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaaa	ÀÀÀÀÀÀÀ
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instr	uctions
STREAM CHANNEL OÑOÙ ñÔSÌË ÎSÔ ÝØSÒÒÛÔ DÎÛÝ ÑÊÛÎÛ Ü DÎÛÝ ÑÊÛÎ×ÒÙ V ÎÛÝ ÛÒÌ ÑÎ ÒÑ ÎÛ Ý MODIFICATIONS: channelzed, captured	ÑÊÛÎÇ
1. SUBSTRATE (Estimate percent of every type of substrate present. Ý, »½ ONLY ¬@ °®»½±³ ²¿² ¬- «¾ ®♂»TYPE ¾±"» -	HHEI
ø΄ ¿¨ ±° í î ÷ὸ ß ¼¼±τχ´² «³ ¾»®±° - 1² .º.½² ¬- «¾ -®, ¬»¬§° »- °±«² ¼ø΄ Ο¿¨ ±° è ÷Ò Ú² ¿´³ »¬®½-½*®» «³ ±°¾±¨»- ß ú Þò TYPE PERCENT O% I ×Ô Å °-Ã OÑ DÑË ΘΌ ÛÎ øỡ ëê ³ ³ ÷ Å ê ° ¬Ã O% OÛS Ú ĐS Ý ΘΛΕ΄ ÑÑ ÜÇ Ü Û ÞÎ ¾ Å Í °¬Ã 10%	Metric Points
	Substrate Max = 40
	20
Ì ±¬¿±° Đ»®»²¬;¹ »- ±° 15.00% (A) [«¾¬®¿¬»»®½¬¿¹» 100% (B) [«¾¬®,¬»»®½¬¿¹» 100%	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) » ^a ¿´«¿¬±² ®¿⅓¸ ¿¬¬¸» ¬³ » ±°	Pool Dept
»º¿´«Հ¬±°òߺ±¼°´«²¹»°±±′- ºՖº Ֆէ½¼¼°³»®¬±® ¬±® ©Հ¬¬®°°»-÷ øÝ,»¼μONLY±°» ¾±¨÷æ âí𽾬³»¬»®Åð°¬Ã	Max = 30
☐ âîîòëóíð½³Åið°¬Ã ☐ äë½ Æi°¬Ã	
COMMENTS A A A A A A A A A A A A A A A A A A A	
3. BANK FULL WIDTH (Measured as the average of 3-4 measurements) (Check ONLY one box):	Bankfull
II âìờh ³ n n n ga cá τίμ Δίħ ° n Δ III âiờh 3 n ci ờe 3 gá (ùí h óì ùèh÷ Δi è ° n Δ	
aîìò𳻬»® páïíù÷Áið°¬Ã aîòð³ óìòò³ páçùéþóïíù÷Áië°¬Ã ≤ïòð³ páãíùíþ÷Áië°¬Ã ≤ïòð³ páãíùíþ÷Áië°¬Ã	Width Max=30
	Width
aíoð° óìoð° æiçuèpóïíuèAië°¬Ã aïoë° óíoð° æiçuèpóìuèp÷Aið°¬Ã COMMENTSAÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁ	Width Max=30
a í tổ ³ ó i tổ ³ gá çuépó ĩ í tỷ Å ề ° ¬Ã a ĩ tổ ³ ó í tổ ³ gá çuépó ì uèp÷Ã ð ° ¬Ã COMMENTS ĂÁ ÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁ	Width Max=30
a í ຜ ³ ó i ຜ ³ æ çuépó ĩ í ử Å ë ° ¬Ã a ĩ œ ³ ó í ຜ ³ æ çuépó ì ùèp÷Ã ð ° ¬Ã COMMENTS ÅÁÁ ÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁÁ	Width Max=30
a í του α	Width Max=30
	Width Max=30
a î ω α οὶ ω α α ç ψ φο τι ῖ μ ἀ ε α - Ã a τ ω α οἱ ω α α ς ψ φο οὶ ῦ ψ ἐ α α α α α α α α α α α α α α α α α α	Width Max=30 5
	Width Max=30 5
a î ω α οὶ ω α α ç ψ φο τι ῖ μ ἀ ε α - Ã a τ ω α οἱ ω α α ς ψ φο οὶ ῦ ψ ἐ α α α α α α α α α α α α α α α α α α	Width Max=30
a i ω α ο i ω α α ο ι ω ο α ο ο ι ω ο α ο ο ι ω ο α ο ο ι ω ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο α ο ο ι ω ο ο α ο ο ι ω ο ο α ο ο α ο ο ι ω ο ο α ο	Width Max=30
a í ω ³ οί ω 3 æ ç μεροῖ ί ἐρ Α ἔ ° ¬Ā a ĩ ω ³ οί ω 3 æ q μεροῖ μερ Α δ ° ¬Ā COMMENTS ĀĀĀ ĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀĀ	Width Max=30

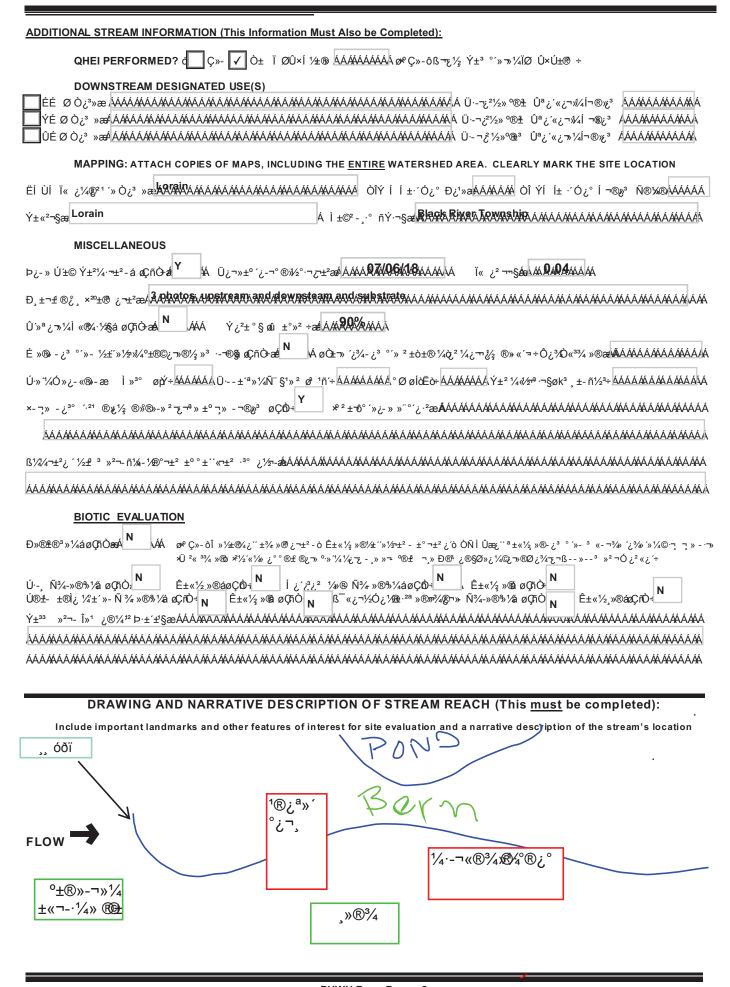


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HHEI Score (sum of metrics 1, 2, 3)

26	
20	

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Α. το αυ ία υύασα τυ αλλαλαλαλαλαλαλαλαλαλαλαλαλαλαλαλαλαλα	á 1/6 ááááá
ἀνουὰ πύ εν το το το το το το το το το το το το το	AAAAAA
amaaaaamaamaamaamaamaamaamaamaamaamaama	ÁÁÁÁÁÁÁ
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	uctions
STREAM CHANNEL DÓNÔÛ ÑÔBÌË ÎBÔ ÝØBÔÔÛÔ DÎÛÝ ÑÊÛÎÛ Ü DÎÛÝ ÑÊÛÎ×ÔÙ ☑ ÎÛÝ ÛÒÌ ÑÎ ÒÑ ÎÛ ÝB MODIFICATIONS: Culvert	ÑÊÛÎÇ
1. SUBSTRATE (Estimate percent of every type of substrate present. Ý, »½ ONLY ¬@ °® ½±³ -²¿² ¬- «¾ -®¬» TYPE ½±¨» -	HHEI
øÓ ¿¨ ±° í î ÷òß ¼¼±τχ´² «³ ¾»®±° - ·¹² .º.½² ¬- «¾ ¬®¬»¬§° »- °±«² ¼øÓ;¨ ±° è ÷òÚ² ¿´° »¬®½-½±®» «° ±°¾±¨»- ß ú Þò <u>TYPE</u> <u>PERCENT</u> <u>TYPE</u> <u>PERCENT</u>	Metric
□ □ ÞÔÜÎ Í ÔßÞÍ Åïề°¬-Ã	Points
	Substrat
	Max = 40
☐ ÛÎ BÊÛÔø ớề ³ ³ ÷ Åç ° ¬ Ã ☐ ☐ ÓËÝÕ Å5 ° ¬ Ã ☐ ☐ Í BÒÜ œã ³ ³ ÷ Åe ° ¬ Ã ☐ ☐ BÎÌ ¼/x/xBÔÅ(° ¬ Ã ☐	16
Ì ±¬¿±°Đ»®»²¬¿¹»- ±°	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 12 TOTAL NUMBER OF SUBSTRATE TYPES: 4	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) »°¿´«¿¬±² ®¿½¸ ¿¬¬¬¸» ¬¬³¬» ±°	Pool Dep
»°¿´«¿¬±²òß°±¹¼°´«²¹»°±±´-°®³®±¿¼¼́м°³»®¬±®-¬±® ©¿¬ъ®´°»-÷ øÝ¸»½μONLY±²»¾±¨÷æ ☐ âíð½⅓¬³»¬»®Å𰬬à ☐ âë½ -ïð½ Äië°¬¬Ã	Max = 30
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This information must also be completed	
RIPARIAN ZONE AND FLOODPLAIN QUALITY ☆ÒÑÌ Ûൿº» ®Ô»ዓወጐ;²¼ἷ·¹¸¬øĨ÷¿- ´±±μ²¹ ½ቴ©²-¬®χ゚ ☆ ፲×ĐßĨ×ß Ò É×ÜÌ Ø <u>ÚÔÑÑÜĐÔී\$-Ò ፲ἕ ይÔ∳Ç</u>	
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FLOW REGIME (At Time of Evaluation) ØY, »1/µ ONLY ±2» 3/4± ÷æ	
「「電影"3 Ú士⑤·²¹	
- YÑOOOO A LAMAMAAAAAAAAAAAAAAAAAAAAAAAAAAAA	\
SINUOSITY ØÒ ℰ Ϡʹͽ®±° Ϡʹϧ²¾-° »®êï ³ ØîÖÖ ొ ±º ⅓ ¿²²» ´÷ ØÝ , »٪μ ONLY ±²» ¾±¨÷æ □ Ò±² » □ î òö □ i òö □ i òö	
☐ ðdë ☐ ïdë ☐ îdë ☐ âí	
STREAM GRADIENT ESTIMATE Ú ¿¬ゐòë॰ਜĩðð ᅆ Ú Ú ;¬ቷ Ó ±¼»®¬»	ñ °⇒





Qualitative Habitat Evaluation Index and Use Assessment Field Sheet

QHEI Score: 55.5

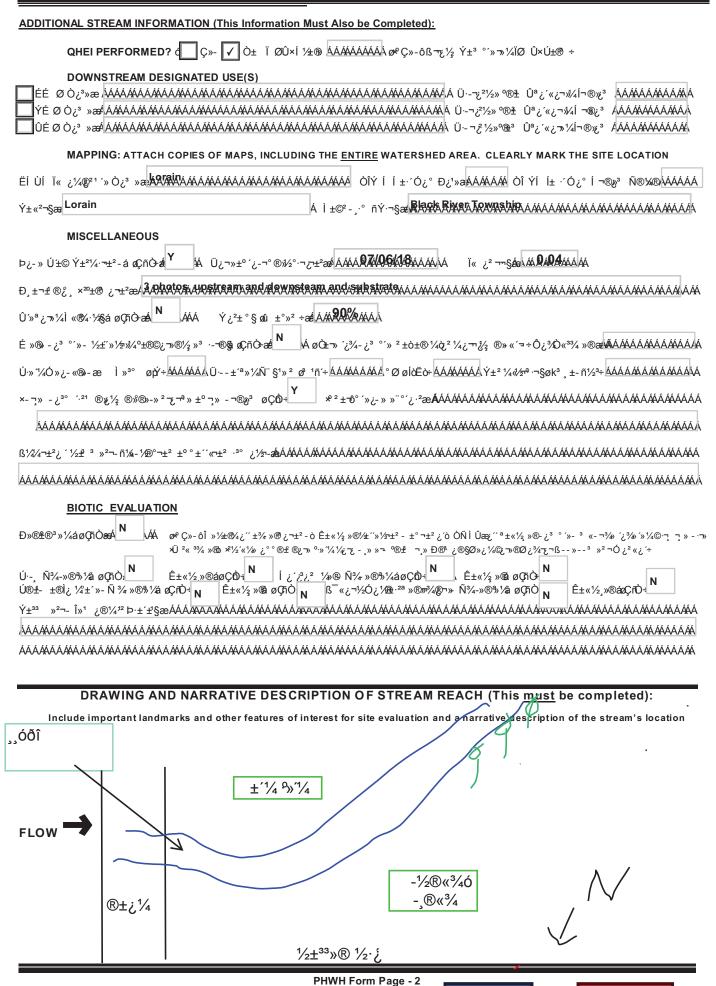
Good Warmwater

Stream & Location:		RM:	Date: ðéñïïñîðïè
	Scorers Full Name & Affiliation:_	ÖÞÔô Û Ø (Ś ŖÛÝÑÓ
River Code:	STORET #:Lat./Long.: iïòìîìîíèô	óèîòîïðìëí	Office verified location
BEST TYPES BLDR /SLABS [10] BOULDER [9] COBBLE [8] GRAVEL [7] SAND [6] BEDROCK [5]	CONLY Two substrate TYPE BOXES; ate % or note every type present OTHER TYPES POOL RIFFLE IB HARDPAN [4] IB DETRITUS [3] SILT Z	rage) QUALITY HEAVY [-2] MODERATE [-1] NORMAL [0]	
NUMBER OF BEST 1 Comments	TYPES: 4 or more [2] sludge from point-sources) LACUSTURINE [0] 3 or less [0] COAL FINES [-2]		NORMAL [0] 20
quality; 3-Highest quality i	GETATION [1] ROOTWADS [1] AQUATIC MACROPHY	che che che che che che che che che che	AMOUNT ack ONE (Or 2 & average) XTENSIVE >75% [11] ODERATE 25-75% [7] PARSE 5-<25% [3] EARLY ABSENT <5% [1] Cover Maximum 20 III
SINUOSITY DEV HIGH [4] MODERATE [3] CON [2] F	CLOGY Check ONE in each category (Or 2 & average) FELOPMENT CHANNELIZATION STABILITY XCELLENT [7] NONE [6] HIGH [3] OOD [5] RECOVERED [4] MODERATE [2] AIR [3] RECOVERING [3] LOW [1] OOR [1] RECENT OR NO RECOVERY [1]		Channel Maximum 20
4] BANK EROSION A River right looking downstred EROSION NONE / LITTLE [3] MODERATE [2] MHEAVY / SEVERE [1] Comments	WIDE > 50m [4]	TY R CON CON CITY RESERVED IN CON CITY RESERVED IN CITY R	SERVATION TILLAGE [1] AN OR INDUSTRIAL [0] NG / CONSTRUCTION [0] dominant land use(s)
5] POOL / GLIDE AN MAXIMUM DEPTH Check ONE (ONLY!)	CHANNEL WIDTH Check ONE (Or 2 & average) POOL WIDTH > RIFFLE WIDTH [2] POOL WIDTH > RIFFLE WIDTH [1] POOL WIDTH > RIFFLE WIDTH [1] POOL WIDTH > RIFFLE WIDTH [1] MODERATE [1] Indicate for reach - pools and rift	FIAL [-1] TENT [-2]	ecreation Potential Primary Contact econdary Contact cle one and comment on back) Pool / Current Maximum 12 ê
	RUN DEPTH RIFFLE / RUN SUBSTRATE RIFF MAXIMUM > 50cm [2] STABLE (e.g., Cobble, Boulder) [2] MAXIMUM < 50cm [1] MOD. STABLE (e.g., Large Gravel) [1] UNSTABLE (e.g., Fine Gravel, Sand) [0]	FLE / RUN E	NO RIFFLE [metric=0] MBEDDEDNESS [2]
6] GRADIENT (jõ DRAINAGE AREA	ft/mi) □ VERY LOW - LOW [2-4]	%GLIDE:(íë Gradient è Maximum

Thie EPA Đ®³ خ® Ø»خا%©خ¬®Øخ¾¬خ¬Û°خ′«خ¬±° Ú±® HHEI Score (sum of metrics 1, 2, 3):

56	

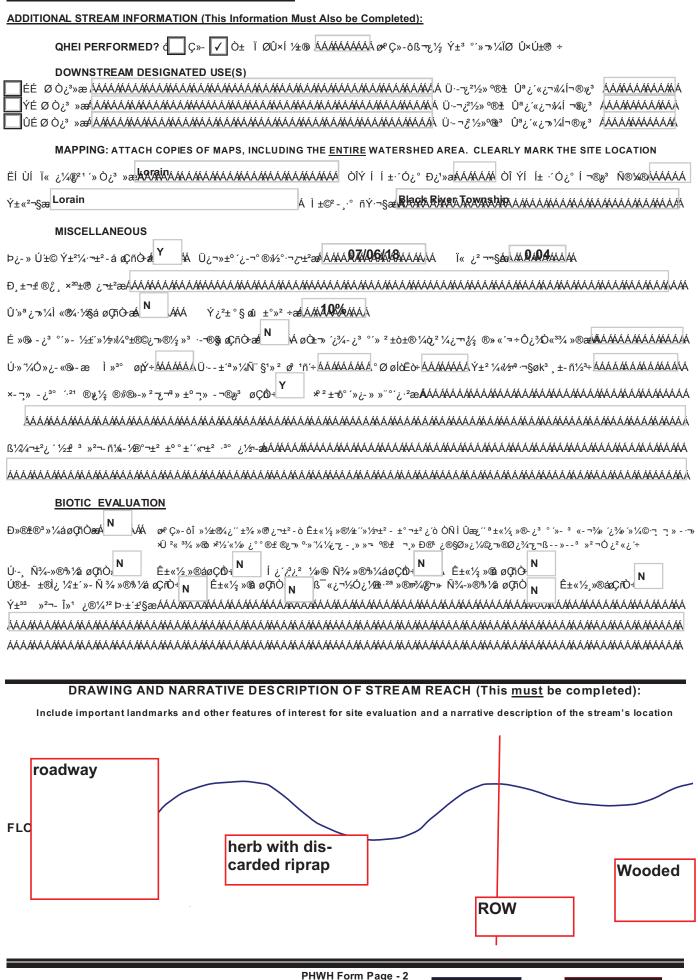
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NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Instru	
STREAM CHANNEL DÓÑOÙ nổ BÌË ÎBÔ Ý ØBOÒÛÔ DÎÛÝ ÑÊÛÎÛ Ü VÎÛÝ ÑÊÛÎ×ÒÙ DÎÛÝ ÛÒÌ ÑÎ ÒÑ ÎÛ ÝI MODIFICATIONS:	ÑÊÛÎÇ
1. SUBSTRATE (Estimate percent of every type of substrate present. Ý, »½ ONLY ¬⊕ °® ½±³ -²¿² ¬- «¾ ¬® ¬» TYPE ½±¨» -	
ØÓ¿¨±ºíî÷òß¼¼±±ç´²«³¾»®±°¹².º.½²¬«¾-®,¬»-6°»- º±«²¼øÓ¿¨±°è÷òÚ²¿´³»¬®½-½±®»«°±°¾±¨»-ßúÞò	HHEI Metric
TYPE PERCENT TYPE PERCENT D' PÔÜÎ Í ỞB ÞÍ ÅÏË ° ¬-à D' I × Ở Å ° ¬Ã 20%	Points
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Ì ±¬¿±° Đ»⑱½°¬¿¹ »- ±° 25.00% (A)	A + B
SCORE OF TWO MOST PREDOMINATE SUBSTRATE TYPES: 15 TOTAL NUMBER OF SUBSTRATE TYPES: 6	
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) »³¿´«¿¬±² ®¸¿½¸ ¿¬¬¬¸» ¬³ » ±° »³¿´«¿¬±² ວິດ3°±¼° °«²¹» °±±′- °®³ ®¸¿¼¼*°³»®¬±® ¬±® ©¿¬»®°-°»-÷ øÝ¸»½ ONLY±²» ¾±′÷æ	Pool Dep
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ChieEPA ච®³ ႘® Ø»႘½©႘¬೫Ø႘႘¾ೡ႘¬Ûª႘′«႘¬±² Ú±® HHEI Score (sum of metrics 1, 2, 3) :

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URIO 1971/12/12/12/12/12/12/12/12/12/12/12/12/12	
NOTE: Complete All Items On This Form - Refer to "Field Evaluation Manual for Ohio's PHWH Streams" for Inst	ructions
STREAM CHANNEL DÓÑOÙ ÑOBÌË ÎBÔ ÝØBÒOÙÔ DÎÛÝ ÑÊÛÎÛ Ü DÎÛÝ ÑÊÛÎ×ÒÙ ÎÛÝ ÛÒÌ ÑÎ ÒÑ ÎÛ Ý MODIFICATIONS: earthwork	⁄ÑÊ ÛÎÇ
1. SUBSTRATE (Estimate percent of every type of substrate present. Ý, »¼ ONLY ¬@ °® ¼±³ ²¿² ¬- «¾ ®♂» TYPE ¾±¨» -	
φΌ ¿¨ ±° í î ÷ò ß ¼¼±τχ´² «³ ¾»®±° - 1² .º.½² ¬- «¾ -®, ¬»-§° »- °±«² ¼φΌ; ¨ ±° è ÷ò Ú² ¿´³ »¬®½-½®» «³ ±°¾±¨»- ß ú Þò TYPE PERCENT O% I ×Ô Å °-Ã ΦΝΕ ΘΌΙ Î σᾶ ëê ³ ³ ÷Å ê ° ¬Ã O% Ο ΦΩς΄ ±° è ÷ò Ú² ¿΄³ »¬®½-½®» «³ ±°¾±¨»- ß ú Þò FERCENT O ΦΩς΄ ΦΑ Γ΄ Α΄ Θ΄	HHEI Metric Points
	Substrate Max = 40
☐ ÛÎ BÊÛÔơ ớề 3° + Åç° ¬Ã 30% ☐ ÓËÝÕ Åŏ° ¬Ã 0% ☐ Í BÔÜ ớã 1° 3° + Åệ° ¬Ã ☐ BÎÌ YÚ×Ý×BÔ Åí° ¬Ã 0%	16
〕 ±¬¿±° Đ»®»²¬¿¹ »- ±° 10.00% (A)	A + B
2. Maximum Pool Depth (Measure the maximum pool depth within the 61 meter (200 ft) » ^a ¿ ´«¿¬±² ® ¿½ ¿¬¬¬ » ¬³ » ±°	Pool Dept
» ° ¿´«¿¬±° òß° ± ½° ´«° ¹ » ° ±±′- °®³ ®± ½½½ ° »®¬ ±® ¬±® ¬±® ¬±® ¬±® ·° »-÷ øÝ, »½ i ONLY ±² » ¯¾±¯÷æ	Max = 30
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This foregoing document was electronically filed with the Public Utilities

Commission of Ohio Docketing Information System on

11/15/2018 3:15:38 PM

in

Case No(s). 18-1395-EL-BLN

Summary: Letter of Notification Application Appendices 9 of 10 electronically filed by Mr. Robert J Schmidt on behalf of American Transmission Systems Inc.