Site:	Poston	-Lick Wet 8	Rater(s): Tim Walters	Date: Jul 2015
	1	1		•
2	2	Metric 1. Wetland Area	a (size)	
max 6 pts.	subtotal	Select one size class and assign sco	•	
		>50 acres (>20.2ha) (6 pts)		
		25 to <50 acres (10.1 to <20.2	2ha) (5 pts)	
		10 to <25 acres (4 to <10.1 ha		Approximated.
		3 to <10 acres (1.2 to <4 ha) (2 0.3 to < 3 acres (012 to <1.2h		0.009 acre within corridor
		2 0.3 to < 3 acres (012 to <1.2h 0.1 to <0.3 acres (0.04 to <0.1		
		<0.1 acres (0.04ha) (0 pts)		
	4.4			
9	11		rs and surrounding land	
max 14 pts.	subtotal	_	ct only one and assign score. Do not double	
			(164 ft) or more around wetland perimeter (7 im to <50m (82 to <164ft) around wetland pe	
			0m to <25m (32ft to <82ft) around wetland p	
		VERY NARROW. Buffers ave	erage <10m (<32ft) around wetland perimete	r (0)
		2b. Intensity of surrounding land use. Sel	_	
			der forest, prairie, savannah, wildlife area, e	ic. (7)
			hrubland, young second growth forest. (5) ential, fenced pasture, park, conservation till	age, new fallow field, (3)
			n pasture, row cropping, mining, construction	
40	0.4			
13	24	Metric 3. Hydrology.		
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	y.	3b. Connectivity. Score all that apply.
		High pH groundwater (5)		100 year floodplain (1)
		Other groundwater (3) 1 Precipitation (1)		Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1)
		3 Seasonal/Intermittent surface	water (3)	1 Part of riparian or upland corridor (1)
		Perennial surface water (lake	or stream (5)	on/saturation. Score one or dbl check.
3c. Maxim	num water der	oth. Select only one and assign score.		Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2	,	Regularly inundated/saturated (3) Seasonally inundated (2)
		1 <0.4m (<15.7m) (1))	Seasonally saturated in upper 30cm (12in) (1)
		. , , , ,	ime. Score one or double check and averag	
		None or none apparent (12)	Check all disturbances observed	
		5 Recovered (7) x Recovering (3)	x ditch tile	point source (nonstormwater)
		Recovering (3) Recent or no recovery (1)	dike	x filling/grading road bed/RR track
			weir	dredging
			stormwater input	Other:
	1	-		
13	37	Metric 4 Habitat Alter	ation and Development.	
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or	•	
max 20 pto.	oubtotui	None or none apparent (4)	acasic check and average.	
		3 Recovered (3)		
		Recovering (2)		
		Recent or no recovery (1) 4b. Habitat development. Select only one	and agaign agara	
		Excellent (7)	and assign score.	
		Very good (6)		
		Good (5)		
		4 Moderately good (4)		
		Fair (3)		
		Poor to fair (2) Poor (1)		
		4c. Habitat alteration. Score one or doub	e check and average.	
		None or none apparent (9)	Check all disturbances observed	
		6 Recovered (6)	mowing	shrub/sapling removal
		Recovering (3) Recent or no recovery (1)	grazing X clearcutting	herbaceous/aquatic bed removal sedimentation
	27		X selective cutting	dredging
	37		woody debris removal	farming
S	ubtotal this page	<u> </u>	toxic pollutants	nutrient enrichment

Site:	Poston	-Lick Wet 8	Rater(s):	Tim Walters	Date: Jul 2015
	37 subtotal first page				
0	37	Metric 5. Special	Wetlands.		
max 10 pts.	subtotal	Check all that apply and score	e as indicated.		
		Bog (10)			
		Fen (10)			
		Old growth forest			
		Mature forested w			
			tributary wetland -unrestrict	,	
			tributary wetland-restricted		
			Prairies (Oak Openings) (10)	
		Relict Wet Prairies	,	r endangered species (10)	
			e state/federal threatened o ory songbird/water fowl hab		
			nd. See Question 1 Qualita		
	140	 			icrotonography
5 max 20 pts.	42 subtotal	Metric 6. Plant confidence of the Metric	•	terspersion, m egatation Community Co	
παλ 20 pls.	Subtotal	Score all present using 0 to 3			Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	_	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		2 Emergent	<u> </u>	ı	
		Shrub		2	Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a small part and is of high
		Forest	_		quality.
		Mudflats		3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Open Water	_	-	
		Other		amatica Base tetra con	and the Coults
		6b. Horizontal (plan view) Inte Score only one.	rspersion. N	arrative Description of Ve	egetation Quality Low spp diversity and/or predominance of nonnative or disturbance
		High (5)		low	tolerant native species
		Moderately high (4	-	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be present.
		Moderate (3)			and species diversity moderate to moderately high, but generally w/o
		Moderately low (2	_		presence of rare, threatened, or endangered spp
		Low (1)	_	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high
		0 None (0)	to Defend		spp diversity and often, but not always, the presence of rare,
		6c. Coverage of invasive plan Table 1 ORAM long form for lis	_	udflat and Open Water C	threatened, or endangered spp
		deduct points for coverage.		0	Absent <0.1ha (0.247 acres)
		Extensive >75% c	over (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 25-75%	cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Sparse 5-25% cov	/er (-1)	3	High 4ha (9.88 acres) or more
		0 Nearly absent <59	% cover (0) N	icrotopography Cover So	ale
		Absent (1)	_	0	Absent
		6d. Microtopography. Score all present using 0 to 3 s	scale.	1	Present in very small amounts or if more common of marginal quality
		1 Vegetated hummu	_		
		1 Coarse woody del		2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		Standing dead >2		^	
	7	1 Amphibian breedi	ng pools	3	Present in moderate or greater amounts and of highest quality
42	GRANI	D TOTAL (max 10	0 pts)		

Project/Site:		City/0	County:	8	Sampling Date:	
Applicant/Owner:				State:	Sampling Point:	
					Slope (%):	
			Datum:			
					ion:	
Are climatic / hydrologic condi		-				
Are Vegetation, Soil _				l Circumstances" pre	esent? Yes No	
Are Vegetation, Soil _	, or Hydrology	naturally problem	atic? (If needed, e	explain any answers	in Remarks.)	
SUMMARY OF FINDIN	GS – Attach sit	e map showing sar	npling point location	ons, transects,	important features, etc.	
Hydrophytic Vagotation Bros	oont? Voo	No				
Hydrophytic Vegetation Pres Hydric Soil Present?		No No	Is the Sampled Area			
Wetland Hydrology Present?		No	within a Wetland?	Yes For Wetlan		
Remarks:				,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	"'	
HYDROLOGY						
Wetland Hydrology Indicat					ors (minimum of two required)	
Primary Indicators (minimum	n of one is required; of			Surface Soil C	` ′	
Surface Water (A1)		True Aquatic Plants	` '		tated Concave Surface (B8)	
High Water Table (A2) Saturation (A3)		Hydrogen Sulfide Oc Oxidized Rhizospher		Drainage Patte		
Water Marks (B1)		Oxidized Knizospher	= : :	Moss Trim Line		
Sediment Deposits (B2)	,	Recent Iron Reduction		Dry-Season Water Table (C2) Crayfish Burrows (C8)		
Drift Deposits (B3)		Thin Muck Surface (ble on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		Other (Explain in Re			essed Plants (D1)	
Iron Deposits (B5)				Geomorphic P	osition (D2)	
Inundation Visible on Ad	erial Imagery (B7)			Shallow Aquita	rd (D3)	
Water-Stained Leaves (B9)			Microtopograp		
Aquatic Fauna (B13)				FAC-Neutral T	est (D5)	
Field Observations:						
Surface Water Present?		Depth (inches):				
Water Table Present?		Depth (inches):			,	
Saturation Present? (includes capillary fringe)	Yes No _	Depth (inches):	Wetland I	Hydrology Present?	? Yes No	
Describe Recorded Data (str	ream gauge, monitor	ing well, aerial photos, pro	evious inspections), if ava	ailable:		
Remarks:						
İ						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_			-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow Dark Surface (TF12)		
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 9	Rater(s): Tim Walters		Date: Jul 2015
		1			
1	1	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	re.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	rha) (5 pts)		
		10 to <25 acres (4 to <10.1 ha	, , , ,	Approximated	d.
		3 to <10 acres (1.2 to <4 ha) (0.016 acre within corridor
		0.3 to < 3 acres (012 to <1.2hd 1 0.1 to <0.3 acres (0.04 to <0.1			
		<0.1 acres (0.04ha) (0 pts)	2.10) (1.50)		
9	10	Motric 2 Unland buffs	ro and autrounding land	ا الم	
max 14 pts.	subtotal	•	rs and surrounding land t only one and assign score. Do not double		
max 14 pto.	oubtotal		164 ft) or more around wetland perimeter (7		
			m to <50m (82 to <164ft) around wetland pe		
			Om to <25m (32ft to <82ft) around wetland perimete		
		2b. Intensity of surrounding land use. Sel		(0)	
			der forest, prairie, savannah, wildlife area, e	etc. (7)	
			hrubland, young second growth forest. (5) ential, fenced pasture, park, conservation till	age new fallow fie	ald (3)
			pasture, row cropping, mining, construction	-	(o)
11	21	Motric 2 Unideal con			
11 max 30 pts.	21 subtotal	Metric 3. Hydrology. 3a. Sources of Water. Score all that apply	,	3h Connectivity	y. Score all that apply.
max 30 pts.	Sublotal	High pH groundwater (5)	<i>(</i> .	3b. Connectivity	100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1)	water (2)	1	Part of wetland/upland (e.g. forest), complex (1)
		3 Seasonal/Intermittent surface Perennial surface water (lake	• •	on/saturation. S	Part of riparian or upland corridor (1) core one or dbl check.
3c. Maxim	num water dep	oth. Select only one and assign score.	,		Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3)		2	Regularly inundated/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) (2 1 <0.4m (<15.7in) (1))		Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
			ime. Score one or double check and average	ge.	
		None or none apparent (12) Recovered (7)	Check all disturbances observed x ditch		point source (nonstormwater)
		3 Recovering (3)	x tile	х	filling/grading
		Recent or no recovery (1)	dike		road bed/RR track
			weir stormwater input		dredging Other:
		_			
7	28	Motrio 4 Hobitat Altare	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or	•		
max 20 pto.	oubtota.	None or none apparent (4)	acable oncontains are age.		
		Recovered (3)			
		2 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)			
		2 Poor to fair (2) Poor (1)			
		4c. Habitat alteration. Score one or doubl			
		None or none apparent (9)	Check all disturbances observed		shrub/gapling romoval
		Recovered (6) 3 Recovering (3)	mowing grazing		shrub/sapling removal herbaceous/aquatic bed removal
		Recent or no recovery (1)	X clearcutting	Х	sedimentation
	28		X selective cutting woody debris removal		dredging farming
SI	ubtotal this page		toxic pollutants	Х	nutrient enrichment

Site:	Poston-	-Lick Wet	9 R	ater(s): Tim Walters	Date: Jul 2015
		1			
	28				
	subtotal first page	1			
0	28		. Special Wetland	S.	
max 10 pts.	subtotal		apply and score as indicated.		
			g (10)		
		Fer	า (10)		
		Old	I growth forest (10)		
		Ма	ture forested wetland (5)		
		Lak	ke Erie coastal/tributary wetland	I -unrestricted hydrology (10)	
		Lak	ke Erie coastal/tributary wetland	l-restricted hydrology (5)	
		Lak	ce Plain Sand Prairies (Oak Op	enings) (10)	
		Rel	lict Wet Prairies (10)		
		Kno	own occurrence state/federal th	reatened or endangered species (10)	
		Sig	nificant migratory songbird/wat	er fowl habitat or usage (10)	
		Cat	tegory 1 Wetland. See Questic	n 1 Qualitative Rating (-10)	
3	31	Metric 6.	. Plant communit	ies, interspersion, mic	crotopography.
max 20 pts.	subtotal		egetation Communities.	Vegatation Community Cove	
		Score all preser	nt using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aqı	uatic bed	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		2 Em	ergent		
		Shi	rub	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a small part and is of high
		For	rest		quality.
		Mu	dflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Ор	en Water		vogotation and to or night quality.
		Oth	ner		
			(plan view) Interspersion.	Narrative Description of Vege	-
		Score only one.		low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
			ıh (5)	mod	Native spp are dominant component of the vegetation, although
			derately high (4)		nonnative and/or disturbance tolerant native spp can also be present,
			derate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
			derately low (2)	high	A predominance of native species, with nonnative spp and/or
			v (1)	riigii	disturbance tolerant native spp absent or virtually absent, and high
			ne (0) of invasive plants. Refer to		spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		•	long form for list. Add or	Mudflat and Open Water Clas	7 3 11
		deduct points fo	or coverage.	0	Absent <0.1ha (0.247 acres)
		Ext	ensive >75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Мо	derate 25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Spa	arse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		0 Nea	arly absent <5% cover (0)	Microtopography Cover Scale	e
		Abs	sent (1)	0	Absent
		6d. Microtopog		1	Present in very small amounts or if more common of marginal quality
			nt using 0 to 3 scale. getated hummucks/tussucks		. 1995. In 1975 office difficulty of it more common of marginal quality
		H	_	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			arse woody debris >15cm (6in)		amounts of ingricor quality
			anding dead >25cm (10in) dbh	3	Propert in moderate or greater amounts and of high and applied
	7		phibian breeding pools		Present in moderate or greater amounts and of highest quality
31	GRANI	TOTAL	(max 100 pts)		

Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4)	Project/Site:		City/C	ounty:		Sampling Date:		
Section, Township, Range: Section, Township, Range: Slope (%): bregion (LRR or MLRA): Lat: Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: Datum								
Indiform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: bregion (LRR or MLRA): Lat: Long: NWI classification: e climatic / hydrologic conditions on the site typical for this time of year? Yes No_ (If no, explain in Remarks.) e Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No_ e Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No_ Soil Present? Yes No_ Within a Wetland? Yes No_ For Watland? VPROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Saturation (Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Inonation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Microtopographic Relief (D4)								
thregion (LRR or MLRA): Lat: Long: Datum: Datum:								
All Map Unit Name:								
e climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) e Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes, No e Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Indicators: **Pror Wetland Hydrology Indicators:** **Pror Wetla								
e Vegetation, Soil, or Hydrologysignificantly disturbed? Are "Normal Circumstances" present? Yes No e Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No								
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (Art) High Water Table (A2) High Water Table (A2) High Water Marks (B1) Saturation (A3)	· -		-					
Alydrophytic Vegetation Present? Yes No Silversent?	Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)		
Adjustic Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Water Marks (B1) Drift Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Water-Stained Leaves (B9) Within a Wetland? Wetland? Yes	SUMMARY OF FINDINGS	S – Attach site n	nap showing sam	pling point location	ons, transects	s, important features, e		
YDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) Evaluation (C4) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Hydric Soil Present? Wetland Hydrology Present?	Yes	No	-				
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	LIVEROLOGY							
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)					Or a redemy loadion	- /		
Surface Water (A1)			ارياموم فصطفالحا					
High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	-	•						
Saturation (A3)								
Water Marks (B1)			· -					
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)				= : : :				
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· , ,							
Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· ' '							
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Algal Mat or Crust (B4)		Other (Explain in Rem	narks)	Stunted or S	Stressed Plants (D1)		
Water-Stained Leaves (B9) Microtopographic Relief (D4)	· · · ·				Geomorphic	Position (D2)		
)						
	Aquatic Fauna (B13)				FAC-Neutra	Test (D5)		
	Field Observations:	Vaa Na	Donath (in the se)					
	Surface Water Present?							
	Water Table Present? Saturation Present?				Judralagy Proso	nt? Vos No		
	(includes capillary fringe)	res No	_ Deptil (iliches)	Welland F	iyarology Fresei	iitr res NO		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (strea	m gauge, monitoring	well, aerial photos, prev	vious inspections), if ava	ilable:			
Remarks:	Remarks:							

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_			-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow Dark Surface (TF12)		
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston-	-Lick Wet 10	Rater(s): Tim Walters		Date: Jul 2015
		 1			
3	3	Metric 1. Wetland Area	a (size).		
max 6 pts.	subtotal	Select one size class and assign sco	•		
		>50 acres (>20.2ha) (6 pts)			
		25 to <50 acres (10.1 to <20.2		Approximate	d
		10 to <25 acres (4 to <10.1 ha 3 3 to <10 acres (1.2 to <4 ha) (Approximate	u. 0.406 acre within corridor
		0.3 to < 3 acres (012 to <1.2ha			
		0.1 to <0.3 acres (0.04 to <0.1	2ha) (1 pt)		
		<0.1 acres (0.04ha) (0 pts)			
12	15	Metric 2. Upland buffe	rs and surrounding land	l use.	
max 14 pts.	subtotal	•	et only one and assign score. Do not double		
		7 WIDE. Buffers average 50m (164 ft) or more around wetland perimeter (7	")	
			im to <50m (82 to <164ft) around wetland pe		
			Om to <25m (32ft to <82ft) around wetland perage <10m (<32ft) around wetland perimete		
		2b. Intensity of surrounding land use. Sel		, (0)	
			der forest, prairie, savannah, wildlife area, e	etc. (7)	
			hrubland, young second growth forest. (5)		11.40
			ential, fenced pasture, park, conservation till pasture, row cropping, mining, construction	-	eld. (3)
		Theri. Orban, industrial, open	pasture, row cropping, mining, construction	1. (1)	
24	39	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	/ .		y. Score all that apply.
		High pH groundwater (5)		1	100 year floodplain (1)
		Other groundwater (3) Precipitation (1)			Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1)
		3 Seasonal/Intermittent surface	water (3)	1	Part of riparian or upland corridor (1)
		Perennial surface water (lake	or stream (5)	on/saturation. S	core one or dbl check.
3c. Maxim	num water dep	oth. Select only one and assign score.		4	Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 2 0.4 to 0.7m (15.7 to 27.6in) (2			Regularly inundated/saturated (3) Seasonally inundated (2)
		2 0.4 to 0.7m (15.7 to 27.6in) (2) <0.4m (<15.7in) (1))		Seasonally saturated in upper 30cm (12in) (1)
		, , , ,	ime. Score one or double check and average	ge.	, , , , ,
		None or none apparent (12)	Check all disturbances observed		Letter and the state of the sta
		Recovered (7) Recovering (3)	ditch tile		point source (nonstormwater) filling/grading
		Recent or no recovery (1)	dike		road bed/RR track
			weir		dredging
			stormwater input		Other:
	T	1			
16.5	55.5	Metric 4. Habitat Altera	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or o	double check and average.		
		4 None or none apparent (4) Recovered (3)			
		Recovering (2)			
		Recent or no recovery (1)			
		4b. Habitat development. Select only one	and assign score.		
		Excellent (7)			
		Very good (6) 5 Good (5)			
		Moderately good (4)			
		Fair (3)			
		Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Score one or doubl	e check and average		
		7.5 None or none apparent (9)	Check all disturbances observed		
		x Recovered (6)	mowing		shrub/sapling removal
		Recovering (3)	grazing		herbaceous/aquatic bed removal
		Recent or no recovery (1)	clearcutting selective cutting		sedimentation
	55.5		woody debris removal		dredging farming
SI	ubtotal this page	■ 9	toxic pollutants		nutrient enrichment

Site:	Poston	-Lick Wet 10	Rater(s	s): Tim Walters	Date: Jul 2015
		1			
	55.5]			
	subtotal first page				
0	55.5	•	ecial Wetlands.		
max 10 pts.	subtotal	Check all that apply ar	nd score as indicated.		
		Bog (10)			
		Fen (10)			
		Old growth	n forest (10)		
		Mature for	ested wetland (5)		
		Lake Erie	coastal/tributary wetland -unrest	ricted hydrology (10)	
		Lake Erie	coastal/tributary wetland-restrict	ed hydrology (5)	
		Lake Plain	Sand Prairies (Oak Openings)	(10)	
		Relict Wet	Prairies (10)		
		Known occ	currence state/federal threatener	d or endangered species (10)	
		Significant	migratory songbird/water fowl h	abitat or usage (10)	
		Category 1	Wetland. See Question 1 Qua	litative Rating (-10)	
14	69.5	Metric 6. Pla	nt communities, i	nterspersion, m	icrotopography.
max 20 pts.	subtotal	6a. Wetland Vegetatio	•	Vegatation Community Co	
		Score all present using	0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic be	d	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		2 Emergent			
		3 Shrub		2	Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a small part and is of high
		2 Forest			quality.
		Mudflats		3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Open Wate	er	3	regulation and to or high quality.
		Other			
		6b. Horizontal (plan vie	ew) Interspersion.	Narrative Description of V	
		Score only one.		low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		High (5)		mod	Native spp are dominant component of the vegetation, although
		Moderately			nonnative and/or disturbance tolerant native spp can also be present,
		3 Moderate	` ,		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
		Moderately	/ low (2)	high	A predominance of native species, with nonnative spp and/or
		Low (1)		g	disturbance tolerant native spp absent or virtually absent, and high
		None (0) 6c. Coverage of invasi	ve plants. Refer to		spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Table 1 ORAM long for	•	Mudflat and Open Water C	
		deduct points for cover	age.	0	Absent <0.1ha (0.247 acres)
		Extensive	>75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 2	25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Sparse 5-2	25% cover (-1)	3	High 4ha (9.88 acres) or more
		0 Nearly abs	sent <5% cover (0)	Microtopography Cover S	cale
		Absent (1)		0	Absent
		6d. Microtopography.Score all present using	0 to 3 scale	1	Present in very small amounts or if more common of marginal quality
			hummucks/tussucks		
			ody debris >15cm (6in)	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			lead >25cm (10in) dbh		, ,
		- January C	breeding pools	3	Present in moderate or greater amounts and of highest quality
00.5	٦				
69.5	_JGRANI	D TOTAL (ma	x 100 pts)		

Metric 1. Wetland Area (size). Selection on size class and sargon score. Selection on size class and size (size). Selection on size (size)	Site:	Poston	-Lick Wet 11	Rater(s): Tim Walters		Date: Jul 2015
Select one size class and assign score. Select one size class and assign score.			1			
## So acces (P.O.D. All (6 pis) ## So be accessed	1	1	Metric 1. Wetland Area	ı (size).		
Sist Set Services (10.1 to <20.20a) (5 yea)	max 6 pts.	subtotal		re.		
10 to -25 sarces (4 to -10.1 ha) (4 pils) Approximated.				ha) (5 pts)		
Doctor of States (Octor) Doctor Doctor (Octor) Doctor) Doctor (Octor) Doctor) Doctor (Octor)					Approximated	
1						0.011 acre within corridor
Source S			`	· · · ·		
max 19 pis. sebbled 20 pis. sebread 20 pis. Secret of the profession (15 pis.) per control deable check. WIDEL Buffers average 50th (16 pis.) or noe around wetland perimeter (7) per control deable check. WIDEL Buffers average 50th (16 pis.) or noe around wetland perimeter (1) per control perimeter (1) per control perimeter (1) per control perimeter (2) per control perimeter (3) per control perimeter (4) per control perimeter (4) per control perimeter (5) per control perimeter (6) per control perimeter (6) per control perimeter (7) per control perimeter (8)				,, ,		
max 19 pis. sebbled 20 pis. sebread 20 pis. Secret of the profession (15 pis.) per control deable check. WIDEL Buffers average 50th (16 pis.) or noe around wetland perimeter (7) per control deable check. WIDEL Buffers average 50th (16 pis.) or noe around wetland perimeter (1) per control perimeter (1) per control perimeter (1) per control perimeter (2) per control perimeter (3) per control perimeter (4) per control perimeter (4) per control perimeter (5) per control perimeter (6) per control perimeter (6) per control perimeter (7) per control perimeter (8)	4	5	Motric 2 Unland buffer	re and currounding land	HEA	
MEDIUM. Buffers average 25th to -50m (52 to -164ft) around welland perimeter (4) 1 ANRAROW. Buffers average 5 fbm (-520ft) around welland perimeter (1) 2 Interval you surrounding allow average 4 fbm (-520ft) around welland perimeter (1) 2 Interval your surrounding allow as Select one or double check and average. 1 EVERY LOW, 2nd growth or older forest, praine, sevanonal, vilicitie area, etc. (7) 1 Co. Old field (-10 years), shruband, young second growth forest, (5) 3 MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field, (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction, (1) 1 1 6 Metric 3. Hydrology. max 30 piss webstel 3a. Sources of Water. Score all that apply. 3b. Connectivity. Score all that apply. 3b. Connectivity. Score all that apply. 3c. Connectivity. Score all that apply. 3c. Maximum water depth. Select only one and assign score. 9 Part of reparation or upand corridor (1) 1 Part of reparation or upand corridor (1) 2 Seasonally inundated/saturated (4) Requirity nundated/saturated (2) 3c. Modifications to natural hydrologic regime. Score one or double check and average. No en or near apparent (1) 1 A do 7m (15.7 to 27 tilen) (2) 3 Recovering (3) 3 Recovering (3) 4 Recovered (7) 4 Recovered (3) 4 Recovered (3) 4 Recovered (3) 4 Recovered (3) 4 Recovered (6) 5 Recovering (3) 4 Recovered (6) 6 Recovered (6) 7 Recovering (7) 8 Recovering (8) 8 Recovering (9) 8 Recovering (1) 8 Recovering (1) 8 Recovering (1) 8 Recovering (1) 9 Recovering (1) 1						
MARROW, Buffers average of ton to <28th (32 for <28th) around wetland perimeter (1)						
VERY NARROW. Buffers average < 10th (<32th) around wetland permeter (f)						
VERY LOW, 2nd growth or older forest, prairie, savannah, willdife area, etc. (7) LOW, Old felder (19-years), shrubday, young second growth forest, (5) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) 11 16 Macric 3, Hydrology. 3a. Sources of Water. Score all that apply. 3b. Connectivity. Score all that apply. 3c. Maximum water deepth. Select only one and assign score. 3c. Maximum water deepth. Select on rone apparent (12) 3 Recovered (7) 4b. Habitat Alteration and Development. 4c. Substate disturbance. Score one or double check and average. 77 23 Metric 4. Habitat Alteration and Development. 4a. Substate disturbance. Score one or double check and average. 4b. Substate disturbance. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 78 23 Metric 5. Habitat development. Select only one and assign score. 5c. Maximum water deepth. Select on rone apparent (4) 8c. Modifications to natural hydrologic regime. Score one or double check and average. 5c. Maximum water deepth. Select on rone apparent (4) 8c. Recovered (7) 4b. Habitat alterator. Score one or double check and average. 4c. Substate disturbance. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or double check and average. 4c. Habitat alterator. Score one or						
LOW. Old field (-10 years), shrubland, young second growth forest. (5) 3 MODERATELY (FIGH. Residental, Recode pasture, park, conservation liligee, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (1) 11 16 Metric 3. Hydrology. max 30 pts. subtotal 3a. Sources of Water. Score all that apply. High pt groundwater (5) High pt groundwater (6) Health pts (1)				_		
MOERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3) HIGH. Urban, industrial, open pasture, row cropping, mining, construction. (3) HIGH. Where is a subtoal of the poundwater (5) San Sources of Witter. Score all that apply. San Sources of Witter. Score all that apply. San Sources of Witter. Score all that apply. San Sources from the provided of (5) High proundwater (5) Differ groundwater (6) Differ groundwater (7) Perential surface water (7) Pere					c. (7)	
## Subtrial The content of the co					age, new fallow fie	eld. (3)
Samura Suprise Samura Suprise Samura Suprise		T	HIGH. Urban, industrial, open	pasture, row cropping, mining, construction.	. (1)	
Samura Suprise Samura Suprise Samura Suprise	11	16	Metric 3. Hydrology.			
Other groundwater (3)				<i>/</i> .	3b. Connectivity	y. Score all that apply.
1 Precipitation (1) 3 Seasonal/Intermittent surface water (3) 1 Prant of riparian or upland corridor (1) Seminitor permanenty inundated/saturated (3) Seasonally inundated (2) Seasonally inundated (2) Seasonally inundated (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)						
3 Seasonal/Intermittent surface water (3)						
3c. Maximum water depth. Select only one and assign score. Content of the cont				water (3)	1	
Solution			•	or stream (5)		
0 4 to 0.7m (15.7 fo 27.6in) (2) 2 Seasonally inundated (2) Seasonally inundated (2) Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)	3c. Maxim	ıum water dep				
None or none apparent (12) Check all disturbances observed None or none apparent (2) Recovered (7) X ditch X title X filling/grading road bed/fix track Weir Stormwater input Other: Total					2	
None or none apparent (12) Recovered (7) Recovering (3) Recovering (4) Recovering (5) Recovering (6) Recovering (7) Recovering (7) Recovering (8) Recovering (8) Recovering (9) Recovering			. , , , ,	ime. Score one or double check and average		Seasonally saturated in upper 30cm (12in) (1)
Record or no recovery (1)				-	C.	
Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) 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) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovering (2) Recent or no recovery (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Reco			` '			
weir stormwater input weir dredging Other:						
Metric 4. Habitat Alteration and Development. 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) 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) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovering (3) Recovering (3) Recent or no recovery (1) X selective cutting X selective cutting Woody debris removal dredging farming Arming Armin			r tooding of the receivery (17)			
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1)				stormwater input		Other:
max 20 pts. subtotal 4a. Substrate disturbance. Score one or double check and average. None or none apparent (4) Recovered (3) Recent or no recovery (1)			1			
None or none apparent (4) Recovered (3) 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) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) 3 Recovering (3) Recent or no recovery (1) X clearcutting Woody debris removal Abitat alteration. Sore one or double check and average. Shrub/sapling removal herbaceous/aquatic bed removal sedimentation A selective cutting woody debris removal farming	7	23	Metric 4. Habitat Altera	ation and Development.		
Recovered (3) 2 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) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovered (6) Recovering (3) Recent or no recovery (1) X selective cutting woody debris removal Ab. Habitat alteration. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) Check all disturbances observed mowing grazing herbaceous/aquatic bed removal a sedimentation dredging farming	max 20 pts.	subtotal		double check and average.		
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) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) X selective cutting woody debris removal farming						
4b. Habitat development. Select only one and assign score. Excellent (7) Very good (6) Good (5) Moderately good (4) Fair (3) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) Recent or no recovery (1) X selective cutting woody debris removal farming						
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Good (5) Moderately good (4) Fair (3) 2 Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) 3 Recovering (3) Recent or no recovery (1) Check all disturbances observed mowing grazing mowing grazing herbaceous/aquatic bed removal X selective cutting woody debris removal farming				aa assig., see. e.		
Moderately good (4) Fair (3) Poor to fair (2) Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) X selective cutting woody debris removal farming						
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Poor (1) 4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) X clearcutting X selective cutting woody debris removal farming			, , ,			
4c. Habitat alteration. Score one or double check and average. None or none apparent (9) Recovered (6) Recovering (3) Recent or no recovery (1) X selective cutting woody debris removal farming			` '			
Recovered (6) 3 Recovering (3) Recent or no recovery (1) X clearcutting X selective cutting woody debris removal Arming Shrub/sapling removal herbaceous/aquatic bed removal x sedimentation dredging farming				e check and average.		
Recovering (3) Recent or no recovery (1) X clearcutting X selective cutting woody debris removal Recent or no recovery (1) X selective cutting woody debris removal Recovering (3) x sedimentation dredging farming			None or none apparent (9)			
Recent or no recovery (1) X clearcutting X sedimentation X selective cutting woody debris removal dredging farming			`			. •
woody debris removal farming				9 9	Х	·
Woody desire removal		23				= =
	SI			1	х	9

Site:	Poston-	Lick Wet 11	Rater(s	s): Tim Walters	Date: Jul 2015	
	23 subtotal first page					
0	23	Metric 5. Spe	ecial Wetlands.			
max 10 pts.	subtotal	Check all that apply ar	nd score as indicated.			
		Bog (10)				
		Fen (10)				
		Old growth	forest (10)			
		Mature for	ested wetland (5)			
		Lake Erie	coastal/tributary wetland -unres	tricted hydrology (10)		
		Lake Erie	coastal/tributary wetland-restrict	ed hydrology (5)		
		Lake Plain	Sand Prairies (Oak Openings)	(10)		
		Relict Wet	Prairies (10)			
		Known occ	currence state/federal threatene	d or endangered species (10)		
		Significant	migratory songbird/water fowl h	nabitat or usage (10)		
		Category 1	Wetland. See Question 1 Qua	alitative Rating (-10)		
0				interspersion, mic	rotonography	
3 max 20 pts.	26 subtotal	6a. Wetland Vegetatio		Vegatation Community Cover		
max 20 pto.	odblotdi	Score all present using		0	Absent or comprises <0.1ha (0.2471 acres) contiguous area	_
		Aquatic be	d		Present and either comprises small part of wetland's vegetation and	
		2 Emergent		1	of moderate quality, or comprises a significant part but is of low qua	iity
		Shrub			Present and either comprises significant part of wetland's vegetation	n
		Forest		2	and is of moderate quality, or comprises a small part and is of high quality.	
		Mudflats			Present and comprises significant part, or more, of wetland's	_
		Open Wate	er	3	vegetation and is of high quality.	
		Other				
		6b. Horizontal (plan vi	ew) Interspersion.	Narrative Description of Vege	tation Quality	
		Score only one.		low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species	
		High (5)			·	
		Moderately	v high (4)	mod	Native spp are dominant component of the vegetation, although nonnative and/or disturbance tolerant native spp can also be preser	nt,
		Moderate	3)		and species diversity moderate to moderately high, but generally w	0
		Moderately	/ low (2)		presence of rare, threatened, or endangered spp	
		Low (1)		high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high	
		0 None (0)	on alanta Defeate		spp diversity and often, but not always, the presence of rare,	
		6c. Coverage of invasi Table 1 ORAM long for	•	Mudflat and Open Water Class	threatened, or endangered spp	_
		deduct points for cover		0	Absent <0.1ha (0.247 acres)	_
		Extensive	>75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		Moderate 2	25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
		Sparse 5-2	25% cover (-1)	3	High 4ha (9.88 acres) or more	
		0 Nearly abs	ent <5% cover (0)	Microtopography Cover Scale		_
		Absent (1)		0	Absent	_
		6d. Microtopography.		1		_
		Score all present using			Present in very small amounts or if more common of marginal qualit	ЗУ
			hummucks/tussucks ody debris >15cm (6in)	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	
			ead >25cm (10in) dbh breeding pools	3	Present in moderate or greater amounts and of highest quality	_
200]		- '		mountained of migroot quality	_
26	IGRANI	TOTAL (ma	x 100 pts)			

Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4)	Project/Site:		City/C	ounty:		Sampling Date:	
Section, Township, Range: Section, Township, Range: Slope (%): bregion (LRR or MLRA): Lat: Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: Datum							
Indiform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: bregion (LRR or MLRA): Lat: Long: NWI classification: e climatic / hydrologic conditions on the site typical for this time of year? Yes No_ (If no, explain in Remarks.) e Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No_ e Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No_ Soil Present? Yes No_ Within a Wetland? Yes No_ For Watland? VPROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Saturation (Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Inonation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Microtopographic Relief (D4)							
thregion (LRR or MLRA): Lat: Long: Datum: Datum:							
All Map Unit Name:							
e climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) e Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes, No e Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Indicators: **Pror Wetland Hydrology Indicators:** **Pror Wetla							
e Vegetation, Soil, or Hydrologysignificantly disturbed? Are "Normal Circumstances" present? Yes No e Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No							
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (Art) High Water Table (A2) High Water Table (A2) High Water Marks (B1) Saturation (A3)	· -		-				
Alydrophytic Vegetation Present? Yes No Silversent?	Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)	
Adjustic Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Water Marks (B1) Drift Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Water-Stained Leaves (B9) Within a Wetland? Wetland? Yes	SUMMARY OF FINDINGS	S – Attach site n	nap showing sam	pling point location	ons, transects	s, important features, e	
YDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) Evaluation (C4) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Hydric Soil Present? Wetland Hydrology Present?	Yes	No	-			
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	LIVEROLOGY						
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)					Or a redemy loadion	- /	
Surface Water (A1)			ارياموم فصطفالحا				
High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	-	•					
Saturation (A3)							
Water Marks (B1)			· -				
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)				= : : :			
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· , ,						
Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· ' '						
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Algal Mat or Crust (B4)		Other (Explain in Rem	narks)	Stunted or S	Stressed Plants (D1)	
Water-Stained Leaves (B9) Microtopographic Relief (D4)	· · · ·				Geomorphic	Position (D2)	
)			· -		
	Aquatic Fauna (B13)				FAC-Neutra	Test (D5)	
	Field Observations:	Vaa Na	Donath (in the se)				
	Surface Water Present?						
	Water Table Present? Saturation Present?				Judralagy Proso	nt? Vos No	
	(includes capillary fringe)	res No	_ Deptil (iliches)	Welland F	iyarology Fresei	iitr res NO	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (strea	m gauge, monitoring	well, aerial photos, prev	vious inspections), if ava	ilable:		
Remarks:	Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_	-		-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 12	Rater(s): Tim Walters		Date: Jul 2015	
		1				
1	1	Metric 1. Wetland Area	ı (size).			
max 6 pts.	subtotal	Select one size class and assign sco	•			
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	Pholi/Entel			
		10 to <25 acres (4 to <10.1 ha		Approximated	d.	
		3 to <10 acres (1.2 to <4 ha) (3	(3 pts)		0.013 acre within corridor	
		0.3 to < 3 acres (012 to <1.2ha				
		1 0.1 to <0.3 acres (0.04 to <0.1)<0.1 acres (0.04ha) (0 pts)	2Πα) (Τ μι)			
1			d company ding land	·		
4 max 14 pts.	5 subtotal		ers and surrounding land of the control of the cont			
max _F .	Junior		(164 ft) or more around wetland perimeter (7)			
			5m to <50m (82 to <164ft) around wetland per			
			I0m to <25m (32ft to <82ft) around wetland perimeter			
in road		2b. Intensity of surrounding land use. Sele		· (0)		
			lder forest, prairie, savannah, wildlife area, et	tc. (7)		
			shrubland, young second growth forest. (5) ential, fenced pasture, park, conservation tilla	age, new fallow fie	ald (3)	
			n pasture, row cropping, mining, construction.	=		
11	16	Metric 3. Hydrology.				
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	v	3b. Connectivit	y. Score all that apply.	
		High pH groundwater (5)	•		100 year floodplain (1)	
		Other groundwater (3)			Between stream/lake and other human use (1)	
		1 Precipitation (1) 3 Seasonal/Intermittent surface v	water (3)		Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)	
		Perennial surface water (lake of	• •	on/saturation. So	core one or dbl check.	
3c. Maxim	num water der	pth. Select only one and assign score.			Semi- to permanently inundated/saturated (4)	
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2)	.)		Regularly inundated/saturated (3) Seasonally inundated (2)	
		1 <0.4m (<15.7in) (1)			Seasonally saturated in upper 30cm (12in) (1)	
		3e. Modifications to natural hydrologic regi	gime. Score one or double check and average Check all disturbances observed	je.		
		Recovered (7)	x ditch		point source (nonstormwater)	
		3 Recovering (3)	tile		filling/grading road bed/RR track	
		Recent or no recovery (1)	dike weir		road bed/RR track dredging	
		1	stormwater input		Other:	
	т—	ا ا				
7	23	Metric 4. Habitat Altera	ation and Development.			
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or d	•			
		None or none apparent (4) Recovered (3)				
		2 Recovering (2)				
		Recent or no recovery (1)				
		4b. Habitat development. Select only one Excellent (7)	and assign score.			
		Very good (6)				
		Good (5)				
		Moderately good (4) Fair (3)				
		2 Poor to fair (2)				
		Poor (1) 4c. Habitat alteration. Score one or double	In sheet and average			
		None or none apparent (9)	Check all disturbances observed			
		Recovered (6)	mowing		shrub/sapling removal	
		Recovering (3) Recent or no recovery (1)	grazing X clearcutting		herbaceous/aquatic bed removal sedimentation	
	- 22	Recent or no recovery (1)	X clearcutting X selective cutting		sealmentation dredging	
ļ	23	1	woody debris removal		farming	
S	subtotal this page	e e	toxic pollutants	х	nutrient enrichment	

Site:	Poston-	Lick Wet 12	Rater(s): Tim Walters	Date: Jul 2015
s	23 subtotal first page			
0	23	Metric 5. Special W	∕etlands.	
max 10 pts.	subtotal	Check all that apply and score as	indicated.	
		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetlan	nd (5)	
		Lake Erie coastal/tribu	utary wetland -unrestricted hydrology (10)	
			utary wetland-restricted hydrology (5)	
			ies (Oak Openings) (10)	
		Relict Wet Prairies (10		
		`	ate/federal threatened or endangered species (10)	
			songbird/water fowl habitat or usage (10)	
			See Question 1 Qualitative Rating (-10)	
4	27	Metric 6. Plant con	nmunities, interspersion, mi	
max 20 pts.	subtotal	6a. Wetland Vegetation Communi		
		Score all present using 0 to 3 scale	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is
		Aquatic bed	1	of moderate quality, or comprises a significant part but is of low quality
		2 Emergent		Present and either comprises significant part of wetland's vegetation
		Shrub	2	and is of moderate quality, or comprises a small part and is of high
		Forest		quality.
		Mudflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Open Water		
		Other		
		6b. Horizontal (plan view) Interspe Score only one.	ersion. Narrative Description of Veg	
		High (5)	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
			mod	Native spp are dominant component of the vegetation, although
		Moderately high (4)		nonnative and/or disturbance tolerant native spp can also be present,
		Moderate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
		Moderately low (2)	high	A predominance of native species, with nonnative spp and/or
		Low (1)	· · · g· ·	disturbance tolerant native spe absent or virtually absent, and high
		0 None (0) 6c. Coverage of invasive plants. I	Refer to	spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Table 1 ORAM long form for list. A		, , , , , , , , , , , , , , , , , , , ,
		deduct points for coverage.	0	Absent <0.1ha (0.247 acres)
		Extensive >75% cover	r (-5) 1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 25-75% cov	ver (-3) 2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Sparse 5-25% cover (-1)3	High 4ha (9.88 acres) or more
		0 Nearly absent <5% co	over (0) Microtopography Cover Sca	ile
		Absent (1)	0	Absent
		6d. Microtopography.	1	
		Score all present using 0 to 3 scale	e	Present in very small amounts or if more common of marginal quality
		Vegetated hummucks, Coarse woody debris:	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		Standing dead >25cm	(10in) dbh	
	1	1 Amphibian breeding p	3	Present in moderate or greater amounts and of highest quality
27	GRANI	TOTAL (max 100 j	pts)	

Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Microtopographic Relief (D4)	Project/Site:		City/C	ounty:		Sampling Date:	
Section, Township, Range: Section, Township, Range: Slope (%): bregion (LRR or MLRA): Lat: Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: Datum							
Indiform (hillslope, terrace, etc.): Local relief (concave, convex, none): Slope (%): bregion (LRR or MLRA): Lat: Long: Datum: bregion (LRR or MLRA): Lat: Long: NWI classification: e climatic / hydrologic conditions on the site typical for this time of year? Yes No_ (If no, explain in Remarks.) e Vegetation Soil or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes No_ e Vegetation Soil or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No_ Soil Present? Yes No_ Within a Wetland? Yes No_ For Watland? VPROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) High Water Table (A2) Hydros Sulfide Ofor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Drift Deposits (B3) Thin Muck Surface (C7) Saturation (Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Inonation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Microtopographic Relief (D4)							
thregion (LRR or MLRA): Lat: Long: Datum: Datum:							
All Map Unit Name:							
e climatic / hydrologic conditions on the site typical for this time of year? Yes No (If no, explain in Remarks.) e Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes, No e Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No Is the Sampled Area within a Wetland? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No Wetland Hydrology Indicators: **Pror Wetland Hydrology Indicators:** **Pror Wetla							
e Vegetation, Soil, or Hydrologysignificantly disturbed? Are "Normal Circumstances" present? Yes No e Vegetation, Soil, or Hydrologynaturally problematic? (If needed, explain any answers in Remarks.) UMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc. Hydrophytic Vegetation Present? Yes No							
Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (Art) High Water Table (A2) High Water Table (A2) High Water Marks (B1) Saturation (A3)	· -		-				
Alydrophytic Vegetation Present? Yes No Silversent?	Are Vegetation, Soil	, or Hydrology	naturally problema	atic? (If needed, e	explain any answe	ers in Remarks.)	
Adjustic Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Wetland Hydrology Indicators: Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Surface Water (A1) High Water Table (A2) Hydrogen Sulfide Odor (C1) Saturation (A3) Water Marks (B1) Water Marks (B1) Drift Deposits (B2) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Water-Stained Leaves (B9) Within a Wetland? Wetland? Yes	SUMMARY OF FINDINGS	S – Attach site n	nap showing sam	pling point location	ons, transects	s, important features, e	
YDROLOGY Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Water Marks (B1) Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Sediment Deposits (B2) Presence of Reduced Iron (C4) Drift Deposits (B3) Thin Muck Surface (C7) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Drainage Patterns (B10) Evaluation (C4) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Saturation Visible on Aerial Imagery (C9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Hydric Soil Present? Wetland Hydrology Present?	Yes	No	-			
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required) Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) True Aquatic Plants (B14) Sparsely Vegetated Concave Surface (B8) High Water Table (A2) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Dry-Season Water Table (C2) Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	LIVEROLOGY						
Primary Indicators (minimum of one is required; check all that apply) Surface Soil Cracks (B6) Surface Water (A1) High Water Table (A2) Moss Trim Lines (B16) Water Marks (B1) Presence of Reduced Iron (C4) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)					Or a redemy loadion	- /	
Surface Water (A1)			ارياموم فصطفالحا				
High Water Table (A2) Saturation (A3) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4)	-	•					
Saturation (A3)							
Water Marks (B1)			· -				
Sediment Deposits (B2) Recent Iron Reduction in Tilled Soils (C6) Crayfish Burrows (C8) Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)				= : : :			
Drift Deposits (B3) Thin Muck Surface (C7) Saturation Visible on Aerial Imagery (C9) Algal Mat or Crust (B4) Other (Explain in Remarks) Stunted or Stressed Plants (D1) Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· , ,						
Iron Deposits (B5) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Shallow Aquitard (D3) Water-Stained Leaves (B9) Microtopographic Relief (D4)	· ' '						
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9) Shallow Aquitard (D3) Microtopographic Relief (D4)	Algal Mat or Crust (B4)		Other (Explain in Rem	narks)	Stunted or S	Stressed Plants (D1)	
Water-Stained Leaves (B9) Microtopographic Relief (D4)	· · · ·				Geomorphic	Position (D2)	
)			· -		
	Aquatic Fauna (B13)				FAC-Neutra	Test (D5)	
	Field Observations:	Vaa Na	Donath (in the se)				
	Surface Water Present?						
	Water Table Present? Saturation Present?				Judralagy Proso	nt? Vos No	
	(includes capillary fringe)	res No	_ Deptil (iliches)	Welland F	iyarology Fresei	iitr res NO	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Describe Recorded Data (strea	m gauge, monitoring	well, aerial photos, prev	vious inspections), if ava	ilable:		
Remarks:	Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_	-		-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 13	Rater(s): Tim Walters		Date: Jul 2015
	<u> </u>	1			
4	4	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	ore.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	Pha) (5 nts)		
		4 10 to <25 acres (4 to <10.1 ha	, , , ,	Approximate	d.
		3 to <10 acres (1.2 to <4 ha) (2.832 acre within corridor
		0.3 to < 3 acres (012 to <1.2h 0.1 to <0.3 acres (0.04 to <0.1			
		<0.1 acres (0.04ha) (0 pts)	2.10) (1 pt)		
10	14	Motric 2 Unland buffs	re and currounding land	4	
max 14 pts.	subtotal		rs and surrounding land t only one and assign score. Do not double		
max 14 pto.	oubtotal		164 ft) or more around wetland perimeter (7		
			im to <50m (82 to <164ft) around wetland po		
			0m to <25m (32ft to <82ft) around wetland բ erage <10m (<32ft) around wetland perimete		
		2b. Intensity of surrounding land use. Sel		Si (0)	
			der forest, prairie, savannah, wildlife area, e	etc. (7)	
			hrubland, young second growth forest. (5) ential, fenced pasture, park, conservation till	lage new fallow fie	ald (3)
			pasture, row cropping, mining, construction	-	(o)
20	4.4	Motrio 2 Unidendami			
30 max 30 pts.	44 subtotal	Metric 3. Hydrology. 3a. Sources of Water. Score all that apply	,	3h Connectivity	y. Score all that apply.
max 50 pts.	Subtotal	High pH groundwater (5)	,	1	100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1) 3 Seasonal/Intermittent surface	water (3)	1	Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)
		3 Seasonal/Intermittent surface5 Perennial surface water (lake	, ,		core one or dbl check.
3c. Maxim	num water der	oth. Select only one and assign score.		4	Semi- to permanently inundated/saturated (4)
		3 >0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2			Regularly inundated/saturated (3) Seasonally inundated (2)
		<0.4m (<15.7in) (1)			Seasonally saturated in upper 30cm (12in) (1)
			ime. Score one or double check and avera	ge	'
		None or none apparent (12) Recovered (7)	Check all disturbances observed ditch		point source (nonstormwater)
		Recovering (3)	tile		filling/grading
		Recent or no recovery (1)	dike		road bed/RR track
			weir stormwater input		dredging Other:
		_			
16.5	60.5	Metric 4. Habitat Altera	ation and Davalanment		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or			
		4 None or none apparent (4)			
		Recovered (3)			
		Recovering (2) Recent or no recovery (1)			
		4b. Habitat development. Select only one	and assign score.		
		Excellent (7)			
		Very good (6) 5 Good (5)			
		Moderately good (4)			
		Fair (3)			
		Poor to fair (2) Poor (1)			
		4c. Habitat alteration. Score one or double			
		7.5 None or none apparent (9)	Check all disturbances observed		laharah /a adia a asasa sad
		X Recovered (6) Recovering (3)	mowing grazing		shrub/sapling removal herbaceous/aquatic bed removal
		Recent or no recovery (1)	clearcutting		sedimentation
	60.5		selective cutting		dredging farming
s	ubtotal this page		woody debris removal toxic pollutants	-	nutrient enrichment

Site:	Poston	-Lick W	let 13	Rater(s): Tim Walters	Date: Jul 2015
	CO 5	1			
	60.5 subtotal first page	_			
_	1	1	E Chaoial Watla	ndo	
0	60.5		5. Special Wetla		
max 10 pts.	subtotal	Check all tr	hat apply and score as indicate	d.	
			Bog (10)		
			Fen (10)		
			Old growth forest (10)		
			Mature forested wetland (5)		
			╡	tland -unrestricted hydrology (10)	
			Lake Erie coastal/tributary we	tland-restricted hydrology (5)	
			Lake Plain Sand Prairies (Oak	COpenings) (10)	
			Relict Wet Prairies (10)		
			Known occurrence state/feder	al threatened or endangered species (10)	
			Significant migratory songbird	/water fowl habitat or usage (10)	
	T		Category 1 Wetland. See Que	estion 1 Qualitative Rating (-10)	
16	76.5	Metric	6. Plant commu	nities, interspersion, mi	crotopography.
max 20 pts.	subtotal	6a. Wetlan	nd Vegetation Communities.	Vegatation Community Cov	ver Scale
		Score all pr	resent using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
			Aquatic bed	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		3	Emergent		
		3	Shrub	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a small part and is of high
		2	Forest	_	quality.
			Mudflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
			Open Water	3	vegetation and is of high quality.
			Other		
			ntal (plan view) Interspersion.	Narrative Description of Ve	
		Score only	7	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
			High (5)	mod	Native spp are dominant component of the vegetation, although
		4	Moderately high (4)	med	nonnative and/or disturbance tolerant native spp can also be present,
			Moderate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
			Moderately low (2)	high	A predominance of native species, with nonnative spp and/or
			Low (1)	nign	disturbance tolerant native species, with normative spp and/or
		6c Covera	None (0) age of invasive plants. Refer to		spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
			RAM long form for list. Add or	Mudflat and Open Water Cl	
		deduct poir	nts for coverage.	0	Absent <0.1ha (0.247 acres)
			Extensive >75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
			Moderate 25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
			Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		0	Nearly absent <5% cover (0)	Microtopography Cover Sc	ale
			Absent (1)	0	Absent
		6d. Microto	opography. resent using 0 to 3 scale.	1	Present in very small amounts or if more common of marginal quality
		1	Vegetated hummucks/tussuck		
		1	Coarse woody debris >15cm (2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		1	Standing dead >25cm (10in) o	lbh 3	
	1	1	Amphibian breeding pools		Present in moderate or greater amounts and of highest quality
76.5	GRANI	D TOT	AL (max 100 pts)		

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1) True Aquatic Plants (B14)					egetated Concave	Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)					atterns (B10)	
Saturation (A3) Oxidized Rhizospheres on Living) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches): Depth (inches):		Hydrology Prose	ent? Yes	No
(includes capillary fringe)					ent: Tes	No
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_			-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 14	Rater(s): Tim Walters		Date: Oct 2015
_		1			
0	0	Metric 1. Wetland Area	a (size).		
max 6 pts.	subtotal	Select one size class and assign sco	ore.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	Pha) (5 pts)		
		10 to <25 acres (4 to <10.1 ha		Approximate	d.
		3 to <10 acres (1.2 to <4 ha)			0.009 acre within corridor
		0.3 to < 3 acres (012 to <1.2h			
		0.1 to <0.3 acres (0.04 to <0.7 <0.1 acres (0.04ha) (0 pts)	(ι μι)		
				_	
3	3		rs and surrounding land		
max 14 pts.	subtotal		ct only one and assign score. Do not double (164 ft) or more around wetland perimeter (7		
			im to <50m (82 to <164ft) around wetland perimeter (7		
		NARROW. Buffers average 1	0m to <25m (32ft to <82ft) around wetland p	erimeter (1)	
			erage <10m (<32ft) around wetland perimete	er (0)	
in road		2b. Intensity of surrounding land use. Se	ect one of double check and average. Ider forest, prairie, savannah, wildlife area, e	tc. (7)	
			hrubland, young second growth forest. (5)		
			ential, fenced pasture, park, conservation till	•	eld. (3)
	l	HIGH. Urban, industrial, oper	n pasture, row cropping, mining, construction	ı. (1)	
7	10	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that appl	y.	3b. Connectivity	y. Score all that apply.
		High pH groundwater (5)			100 year floodplain (1)
		Other groundwater (3) 1 Precipitation (1)			Between stream/lake and other human use (1) Part of wetland/upland (e.g. forest), complex (1)
		Seasonal/Intermittent surface	water (3)		Part of riparian or upland corridor (1)
		Perennial surface water (lake	or stream (5)	on/saturation. S	core one or dbl check.
3c. Maxim	ıum water de _l	oth. Select only one and assign score.			Semi- to permanently inundated/saturated (4) Regularly inundated/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) (2)	2	Seasonally inundated (2)
		1 <0.4m (<15.7in) (1)			Seasonally saturated in upper 30cm (12in) (1)
		None or none apparent (12)	rime. Score one or double check and averaç Check all disturbances observed	ge.	
		Recovered (7)	ditch		point source (nonstormwater)
		3 Recovering (3)	tile	Х	filling/grading
		Recent or no recovery (1)	dike weir	X	road bed/RR track dredging
			stormwater input		Other:
		_			
8	18	Motric 4 Habitat Altor	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or			
		None or none apparent (4)			
		Recovered (3)			
		2 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)			
		3 Fair (3)			
		Poor to fair (2) Poor (1)			
		4c. Habitat alteration. Score one or doub	e check and average.		
		None or none apparent (9)	Check all disturbances observed		
		Recovered (6)	mowing		shrub/sapling removal
		Recovering (3) Recent or no recovery (1)	grazing X clearcutting		herbaceous/aquatic bed removal sedimentation
ļ	10	1	X selective cutting		dredging
	18		woody debris removal		farming
SL	ubtotal this page		toxic pollutants		nutrient enrichment

Site:	Poston-	Lick Wet 14	Rater(s): Tim Walters	Date: Oct 2015
	18 ubtotal first page			
0	18	Metric 5. Special Wet	lands.	
max 10 pts.	subtotal	Check all that apply and score as indic	ated.	
		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5	5)	
		Lake Erie coastal/tributary	wetland -unrestricted hydrology (10)	
		Lake Erie coastal/tributary	wetland-restricted hydrology (5)	
		Lake Plain Sand Prairies (0	Dak Openings) (10)	
		Relict Wet Prairies (10)	3.,(3,	
		` '	deral threatened or endangered species (10)	
			pird/water fowl habitat or usage (10)	
			Question 1 Qualitative Rating (-10)	
4	22	Metric 6. Plant comm	unities, interspersion, mic	
max 20 pts.	subtotal	6a. Wetland Vegetation Communities.	Vegatation Community Cover	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is
		Aquatic bed	1	of moderate quality, or comprises a significant part but is of low quality
		2 Emergent		Present and either comprises significant part of wetland's vegetation
		Shrub	2	and is of moderate quality, or comprises a small part and is of high
		Forest		quality.
		Mudflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Open Water		
		Other	-	
		6b. Horizontal (plan view) Interspersion Score only one.	n. Narrative Description of Vege	
			low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		High (5)	mod	Native spp are dominant component of the vegetation, although
		Moderately high (4)		nonnative and/or disturbance tolerant native spp can also be present,
		Moderate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
		Moderately low (2)	high	
		Low (1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high
		0 None (0)	r to	spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		6c. Coverage of invasive plants. Refer Table 1 ORAM long form for list. Add of		, , , , , , , , , , , , , , , , , , , ,
		deduct points for coverage.	0	Absent <0.1ha (0.247 acres)
		Extensive >75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 25-75% cover (-3	3) 2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		Nearly absent <5% cover (0) Microtopography Cover Scale	e
		· ·	0	
		Absent (1) 6d. Microtopography.	<u>-</u>	Absent
		Score all present using 0 to 3 scale.	1	Present in very small amounts or if more common of marginal quality
		Vegetated hummucks/tuss	ucks 2	Present in moderate amounts, but not of highest quality or in small
		Coarse woody debris >15c		amounts of highest quality
		Standing dead >25cm (10in	n) dbh	
		1 Amphibian breeding pools	3	Present in moderate or greater amounts and of highest quality
22	CDANI			
22	JGKANL	TOTAL (max 100 pts	5)	

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1) True Aquatic Plants (B14)					egetated Concave	Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)					atterns (B10)	
Saturation (A3) Oxidized Rhizospheres on Living) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches): Depth (inches):		Hydrology Prose	ent? Yes	No
(includes capillary fringe)					ent: Tes	No
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2.		FACW species x 2 =
2.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
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		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 15	Rater(s): Tim Walters		Date: Oct 2015
		1			
3	3	Metric 1. Wetland Area	a (size).		
max 6 pts.	subtotal	Select one size class and assign sco	•		
		>50 acres (>20.2ha) (6 pts)			
		25 to <50 acres (10.1 to <20.2	, , , ,	Approximate	٦
		10 to <25 acres (4 to <10.1 ha 3 3 to <10 acres (1.2 to <4 ha) (Approximated	u. 1.078 acre within corridor
		0.3 to < 3 acres (012 to <1.2h			
		0.1 to <0.3 acres (0.04 to <0.1	2ha) (1 pt)		
	Τ	<0.1 acres (0.04ha) (0 pts)			
3	6	Metric 2. Upland buffe	rs and surrounding land	l use.	
max 14 pts.	subtotal		et only one and assign score. Do not double		
			(164 ft) or more around wetland perimeter (7		
			im to <50m (82 to <164ft) around wetland pe 0m to <25m (32ft to <82ft) around wetland p		
			erage <10m (<32ft) around wetland perimete		
		2b. Intensity of surrounding land use. Se		,	
			der forest, prairie, savannah, wildlife area, e	etc. (7)	
			hrubland, young second growth forest. (5) ential, fenced pasture, park, conservation till:	age new fallow fie	eld (3)
			n pasture, row cropping, mining, construction	-	(o)
40	46	Mark da O. III. da alam			
10	16	Metric 3. Hydrology.		2h	Coors all that analy
max 30 pts.	subtotal	3a. Sources of Water. Score all that appl High pH groundwater (5)	y.	3b. Connectivity	y. Score all that apply. 100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1)			Part of wetland/upland (e.g. forest), complex (1)
		3 Seasonal/Intermittent surface Perennial surface water (lake		on/acturation S	Part of riparian or upland corridor (1) core one or dbl check.
3c. Maxim	num water der	oth. Select only one and assign score.	or stream (5)		Semi- to permanently inundated/saturated (4)
00	ia Hater dep	>0.7 (27.6in) (3)			Regularly inundated/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) (2)	2	Seasonally inundated (2)
		1 <0.4m (<15.7in) (1) 3e. Modifications to natural hydrologic rec	jime. Score one or double check and average	ge.	Seasonally saturated in upper 30cm (12in) (1)
		None or none apparent (12)	Check all disturbances observed		
		Recovered (7)	x ditch		point source (nonstormwater)
		Recovering (3) Recent or no recovery (1)	tile dike		filling/grading road bed/RR track
			weir		dredging
			stormwater input		Other:
		1			
9.5	25.5	Metric 4. Habitat Altera	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or	•		
		None or none apparent (4)			
		Recovered (3) 2 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)			
		3 Fair (3)			
		Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Score one or doub	e check and average.		
		None or none apparent (9)	Check all disturbances observed		
		x Recovered (6)	mowing		shrub/sapling removal
		4.5 Recovering (3) Recent or no recovery (1)	grazing X clearcutting		herbaceous/aquatic bed removal sedimentation
	OF F	. 1888 51 110 1888761 (1)	X selective cutting		dredging
	25.5		woody debris removal		farming
SI	ubtotal this page		toxic pollutants		nutrient enrichment

Site:	Poston	-Lick Wet 15	Rater(s): Tim Walters	Date: Oct 2015
	0	1		
	25.5			
	subtotal first page	1		
0	25.5	Metric 5. Special We		
max 10 pts.	subtotal	Check all that apply and score as indi	cated.	
		Bog (10)		
		Fen (10)		
		Old growth forest (10)		
		Mature forested wetland (5)	
		Lake Erie coastal/tributary	wetland -unrestricted hydrology (10)	
		Lake Erie coastal/tributary	wetland-restricted hydrology (5)	
		Lake Plain Sand Prairies	(Oak Openings) (10)	
		Relict Wet Prairies (10)		
		Known occurrence state/f	ederal threatened or endangered species (10	u)
		Significant migratory song	bird/water fowl habitat or usage (10)	
1		Category 1 Wetland. See	Question 1 Qualitative Rating (-10)	
7	32.5	Metric 6. Plant comm	nunities, interspersion, n	nicrotopography.
max 20 pts.		6a. Wetland Vegetation Communities	•	
		Score all present using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
		Aquatic bed	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		2 Emergent		
		1 Shrub	2	Present and either comprises significant part of wetland's vegetation and is of moderate quality, or comprises a small part and is of high
		Forest		quality.
		Mudflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
		Open Water		vogotation and to or mgr quality.
		Other	_	
		6b. Horizontal (plan view) Interspersion	on. Narrative Description of \	
		Score only one.	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
		High (5)	mod	Native spp are dominant component of the vegetation, although
		Moderately high (4)		nonnative and/or disturbance tolerant native spp can also be present,
		Moderate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
		Moderately low (2)	high	A predominance of native species, with nonnative spp and/or
		Low (1)	9	disturbance tolerant native spp absent or virtually absent, and high
		0 None (0) 6c. Coverage of invasive plants. Refe	er to	spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
		Table 1 ORAM long form for list. Add		
		deduct points for coverage.	0	Absent <0.1ha (0.247 acres)
		Extensive >75% cover (-5)1	Low 0.1 to <1ha (0.247 to 2.47 acres)
		Moderate 25-75% cover (-3) 2	Moderate 1 to <4ha (2.47 to 9.88 acres)
		Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		Nearly absent <5% cover	(0) Microtopography Cover S	3cale
		1 Absent (1)	0	Absent
		6d. Microtopography. Score all present using 0 to 3 scale.	1	Present in very small amounts or if more common of marginal quality
		2 Vegetated hummucks/tus	sucks	
		Coarse woody debris >15	2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		Standing dead >25cm (10	in) dbh	<u> </u>
		1 Amphibian breeding pools	3	Present in moderate or greater amounts and of highest quality
20 E				
32.5	_IGKANI	D TOTAL (max 100 pt	5)	

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1)					egetated Concave	Surface (B8)
High Water Table (A2) Hydrogen Sulfide Odor (C1)					atterns (B10)	
Saturation (A3) Oxidized Rhizospheres on Living) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches): Depth (inches):		Hydrology Prose	ent? Yes	No
(includes capillary fringe)					ent: Tes	No
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2.		FACW species x 2 =
2.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_	-		-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston-	-Lick Wet 16	Rater(s): Tim Walters		Date: Oct 2015
]			
3	3	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	re.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	tha) (5 nte)		
		10 to <25 acres (4 to <10.1 ha		Approximated	d.
		3 3 to <10 acres (1.2 to <4 ha) (2.089 acre within corridor
		0.3 to < 3 acres (012 to <1.2ha	, , , ,		
		0.1 to <0.3 acres (0.04 to <0.1 <0.1 acres (0.04ha) (0 pts)	2ha) (1 pt)		
	_	-0.1 ασίου (σ.υ ma) (σ μω)			
4	7	• • • • • • • • • • • • • • • • • • •	rs and surrounding land		
max 14 pts.	subtotal		t only one and assign score. Do not double		
			164 ft) or more around wetland perimeter (7) m to <50m (82 to <164ft) around wetland pe		
			0m to <25m (32ft to <82ft) around wetland p		
			erage <10m (<32ft) around wetland perimeter	r (0)	
		2b. Intensity of surrounding land use. Sel	ect one or double check and average. der forest, prairie, savannah, wildlife area, et	to (7)	
			hrubland, young second growth forest. (5)	ic. (1)	
			ential, fenced pasture, park, conservation tilla	-	eld. (3)
1		HIGH. Urban, industrial, open	pasture, row cropping, mining, construction.	. (1)	
11	18	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	<i>I</i> .	3b. Connectivity	/. Score all that apply.
		High pH groundwater (5)			100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1) 3 Seasonal/Intermittent surface	water (3)	1	Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)
		Perennial surface water (lake	• •		core one or dbl check.
3c. Maxim	um water dep	th. Select only one and assign score.			Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2		2	Regularly inundated/saturated (3) Seasonally inundated (2)
		1 <0.4m (<15.7in) (1)	,	_	Seasonally saturated in upper 30cm (12in) (1)
			ime. Score one or double check and averag	е	
		None or none apparent (12) Recovered (7)	Check all disturbances observed x ditch		point source (nonstormwater)
		3 Recovering (3)	tile		filling/grading
		Recent or no recovery (1)	dike		road bed/RR track
			weir stormwater input		dredging Other:
			Stoffiwater input		othor.
0.5	07.5] '			
9.5		Metric 4. Habitat Altera 4a. Substrate disturbance. Score one or o			
max 20 pts.	subtotal	None or none apparent (4)	double check and average.		
		Recovered (3)			
		2 Recovering (2)			
		Recent or no recovery (1) 4b. Habitat development. Select only one	and assign score.		
		Excellent (7)	and accign cools		
		Very good (6)			
		Good (5) Moderately good (4)			
		3 Fair (3)			
		Poor to fair (2)			
		Poor (1) 4c. Habitat alteration. Score one or doubl	e check and average		
		None or none apparent (9)	Check all disturbances observed		
		x Recovered (6)	x mowing		shrub/sapling removal
		4.5 Recovering (3)	grazing		herbaceous/aquatic bed removal
ı	0= =	Recent or no recovery (1)	X clearcutting X selective cutting		sedimentation dredging
	27.5		woody debris removal		farming
SU	ibtotal this page		toxic pollutants		nutrient enrichment

Site:	Poston	-Lick W	<u>/et 16</u>	Rater(s): Tim Walters	Date: Oct 2015
	27.5				
0	27.5	1	: 5. Special Wetla	nds.	
max 10 pts.	subtotal		hat apply and score as indicate		
			Bog (10)		
			Fen (10)		
			Old growth forest (10)		
			Mature forested wetland (5)		
			1	tland uprostricted bydrology (10)	
			Lake Erie coastal/tributary we	tland restricted hydrology (10)	
			╡		
			Lake Plain Sand Prairies (Oak	Openings) (10)	
			Relict Wet Prairies (10)	-1404	
			-	al threatened or endangered species (10)	
			╡ ゙	/water fowl habitat or usage (10)	
	1		_ ~ .	estion 1 Qualitative Rating (-10)	
6	33.5	Metric	: 6. Plant commu	nities, interspersion, mi	crotopography.
max 20 pts.	subtotal		nd Vegetation Communities.	Vegatation Community Cove	
		Score all pr	resent using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area Present and either comprises small part of wetland's vegetation and is
			Aquatic bed	1	of moderate quality, or comprises a significant part but is of low quality
		2	Emergent		Present and either comprises significant part of wetland's vegetation
		1	Shrub	2	and is of moderate quality, or comprises a small part and is of high
			Forest		quality.
			Mudflats	3	Present and comprises significant part, or more, of wetland's vegetation and is of high quality.
			Open Water		
			Other		
		6b. Horizon Score only	ntal (plan view) Interspersion.	Narrative Description of Veg	-
		Ocore only	7	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
			High (5)	mod	Native spp are dominant component of the vegetation, although
			Moderately high (4)		nonnative and/or disturbance tolerant native spp can also be present,
			Moderate (3)		and species diversity moderate to moderately high, but generally w/o presence of rare, threatened, or endangered spp
			Moderately low (2)	high	A predominance of native species, with nonnative spp and/or
			Low (1)	9.1	disturbance tolerant native spp absent or virtually absent, and high
		6c. Covera	None (0) age of invasive plants. Refer to		spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
			RAM long form for list. Add or	Mudflat and Open Water Cla	
		deduct poir	nts for coverage.	0	Absent <0.1ha (0.247 acres)
			Extensive >75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
			Moderate 25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
			Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		0	Nearly absent <5% cover (0)	Microtopography Cover Sca	le
			Absent (1)	0	Absent
		6d. Microto Score all pr	ppography. resent using 0 to 3 scale.	1	Present in very small amounts or if more common of marginal quality
		2	Vegetated hummucks/tussuck	s <u> </u>	Describing and describe and other transfer of the state o
			Coarse woody debris >15cm (2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
			Standing dead >25cm (10in) o	lbh 3	
	_	1	Amphibian breeding pools		Present in moderate or greater amounts and of highest quality
33.5	GRANI	D TOT	AL (max 100 pts)		

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1)	•	_ True Aquatic Plants (B14)		` ,	Surface (B8)
High Water Table (A2)	·	_ Hydrogen Sulfide Od	•	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)		
Saturation (A3)	<u> </u>	-	es on Living Roots (C3)) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches): Depth (inches):		Hydrology Prose	ent? Yes	No
(includes capillary fringe)					ent: Tes	No
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet:
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_	-		-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston-	-Lick Wet 17	Rater(s): Tim Walters		Date: Oct 2015
		1			
2	2	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	ore.		
		>50 acres (>20.2ha) (6 pts)	Pho (F pto)		
		25 to <50 acres (10.1 to <20.2 10 to <25 acres (4 to <10.1 ha		Approximate	d.
		3 to <10 acres (1.2 to <4 ha) (0.244 acre within corridor
		2 0.3 to < 3 acres (012 to <1.2ha	· · · ·		
		0.1 to <0.3 acres (0.04 to <0.1 <0.1 acres (0.04ha) (0 pts)	2ha) (1 pt)		
		-0.1 acres (0.04πa) (0 μts)			
11	13	Metric 2. Upland buffe	rs and surrounding land	d use.	
max 14 pts.	subtotal		et only one and assign score. Do not double		
			(164 ft) or more around wetland perimeter (7 im to <50m (82 to <164ft) around wetland pe		
			0m to <25m (32ft to <82ft) around wetland p		
			erage <10m (<32ft) around wetland perimeter		
		2b. Intensity of surrounding land use. Sel	_		
			der forest, prairie, savannah, wildlife area, ε hrubland, young second growth forest. (5)	etc. (7)	
			ential, fenced pasture, park, conservation till	lage, new fallow fie	eld. (3)
		HIGH. Urban, industrial, open	pasture, row cropping, mining, construction	n. (1)	
14.5	27.5	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	ı,	3h Connectivit	y. Score all that apply.
max oo pto.	Subtotal	High pH groundwater (5)	,.	OD: COMICCIONA	100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1)			Part of wetland/upland (e.g. forest), complex (1)
		Seasonal/Intermittent surface Perennial surface water (lake		1 on/saturation S	Part of riparian or upland corridor (1) core one or dbl check.
3c. Maxim	ıum water der	oth. Select only one and assign score.	0. 00.00 (0)		Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3)			Regularly inundated/saturated (3)
		0.4 to 0.7m (15.7 to 27.6in) (2) 1 <0.4m (<15.7in) (1))	2	Seasonally inundated (2) Seasonally saturated in upper 30cm (12in) (1)
			ime. Score one or double check and avera-	ge.	Seasonally Saturated in upper Social (12iii) (1)
		X None or none apparent (12)	Check all disturbances observed		
		9.5 Recovered (7) Recovering (3)	ditch		point source (nonstormwater)
		Recovering (3) Recent or no recovery (1)	tile dike	х	filling/grading road bed/RR track
			weir		dredging
			stormwater input		Other:
	Τ	1			
12.5	40	Metric 4. Habitat Altera	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or o	double check and average.		
		4 None or none apparent (4) Recovered (3)			
		Recovered (3)			
		Recent or no recovery (1)			
		4b. Habitat development. Select only one	and assign score.		
		Excellent (7) Very good (6)			
		Good (5)			
		4 Moderately good (4)			
		Fair (3)			
		Poor to fair (2) Poor (1)			
		4c. Habitat alteration. Score one or doubl	e check and average.		
		None or none apparent (9)	Check all disturbances observed		
		X Recovered (6) 4.5 Recovering (3)	x mowing grazing		shrub/sapling removal herbaceous/aquatic bed removal
		Recovering (3) Recent or no recovery (1)	X clearcutting		sedimentation
	40		X selective cutting		dredging
		J .	woody debris removal		farming
SI	ubtotal this page	;	toxic pollutants	1	nutrient enrichment

Site:	Poston-	<u>-Lick W</u>	et 17	Rater(s): Tim Walters	Date: Oct 2015
,	40				
0	40	Metric	5. Special Wetla	nds.	
max 10 pts.	subtotal	Check all th	nat apply and score as indicated	d.	
			Bog (10)		
			Fen (10)		
			Old growth forest (10)		
			Mature forested wetland (5)		
			Lake Erie coastal/tributary wet	land -unrestricted hydrology (10)	
			Lake Erie coastal/tributary wet	land-restricted hydrology (5)	
			Lake Plain Sand Prairies (Oak	Openings) (10)	
			Relict Wet Prairies (10)		
			Known occurrence state/federa	al threatened or endangered species (10)	
			Significant migratory songbird/	water fowl habitat or usage (10)	
			Category 1 Wetland. See Que	estion 1 Qualitative Rating (-10)	
7	47	Metric	6 Plant commur	nities, interspersion, mic	rotonography
max 20 pts.	47		d Vegetation Communities.	Vegatation Community Cove	
max 20 pto.	oubtotu.		resent using 0 to 3 scale.	0	Absent or comprises <0.1ha (0.2471 acres) contiguous area
			Aquatic bed	1	Present and either comprises small part of wetland's vegetation and is of moderate quality, or comprises a significant part but is of low quality
		2	Emergent	ı	of moderate quality, or comprises a significant part but is of low quality
			Shrub		Present and either comprises significant part of wetland's vegetation
		2	Forest	2	and is of moderate quality, or comprises a small part and is of high quality.
			Mudflats		Present and comprises significant part, or more, of wetland's
			Open Water	3	vegetation and is of high quality.
			Other		
			ntal (plan view) Interspersion.	Narrative Description of Veg	etation Quality
		Score only	7	low	Low spp diversity and/or predominance of nonnative or disturbance tolerant native species
			High (5)	mod	Native spp are dominant component of the vegetation, although
			Moderately high (4)	mod	nonnative and/or disturbance tolerant native spp can also be present,
			Moderate (3)		and species diversity moderate to moderately high, but generally w/o
			Moderately low (2)		presence of rare, threatened, or endangered spp
		1	Low (1)	high	A predominance of native species, with nonnative spp and/or disturbance tolerant native spp absent or virtually absent, and high
		Co. Covers	None (0)		spp diversity and often, but not always, the presence of rare, threatened, or endangered spp
			ge of invasive plants. Refer to AM long form for list. Add or	Mudflat and Open Water Clas	7 3 11
			its for coverage.	0	Absent <0.1ha (0.247 acres)
			Extensive >75% cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)
			Moderate 25-75% cover (-3)	2	Moderate 1 to <4ha (2.47 to 9.88 acres)
			Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more
		0	Nearly absent <5% cover (0)	Microtopography Cover Scal	e
			Absent (1)	0	Absent
		6d. Microto		1	Dreaget in your small amounts or if more common of more including
		Score all pr	resent using 0 to 3 scale.		Present in very small amounts or if more common of marginal quality
			Vegetated hummucks/tussuck Coarse woody debris >15cm (2	Present in moderate amounts, but not of highest quality or in small amounts of highest quality
		1	Standing dead >25cm (10in) d	bh	
	1	1	Amphibian breeding pools	3	Present in moderate or greater amounts and of highest quality
47	GRANI	TOTA	AL (max 100 pts)		

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1)	•	_ True Aquatic Plants (B14)		` ,	Surface (B8)
High Water Table (A2)	·	_ Hydrogen Sulfide Od	•	Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)		
Saturation (A3)	<u> </u>	-	es on Living Roots (C3)) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Season Water Table (C2)		
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches): Depth (inches):		Hydrology Prose	ent? Yes	No
(includes capillary fringe)					ent: Tes	No
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet:
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_	-		-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston	-Lick Wet 18	Rater(s): Tim Walters		Date: Oct 2015
		1			
1	1	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	re.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	tha) (5 pts)		
		10 to <25 acres (4 to <10.1 ha		Approximated	d.
		3 to <10 acres (1.2 to <4 ha) (0.051 acre within corridor
		0.3 to < 3 acres (012 to <1.2ha 0.1 to <0.3 acres (0.04 to <0.1			
		1 <0.1 acres (0.04ha) (0 pts)			
11	12	Motric 2 Unland buffs	re and currounding land	Luco	
max 14 pts.	subtotal	•	rs and surrounding land to only one and assign score. Do not double		
			164 ft) or more around wetland perimeter (7		
			m to <50m (82 to <164ft) around wetland pe		
			Om to <25m (32ft to <82ft) around wetland p rage <10m (<32ft) around wetland perimete		
		2b. Intensity of surrounding land use. Sel		. (0)	
			der forest, prairie, savannah, wildlife area, e	tc. (7)	
			hrubland, young second growth forest. (5) ential, fenced pasture, park, conservation till	age, new fallow fie	eld. (3)
			pasture, row cropping, mining, construction	-	(-)
11	23	Motrio 2 Hydrology			
max 30 pts.	subtotal	Metric 3. Hydrology. 3a. Sources of Water. Score all that apply	,	3h Connectivity	y. Score all that apply.
max oo pto.	odbiotai	High pH groundwater (5)	•	ob. Comicouvity	100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1) Seasonal/Intermittent surface	water (3)		Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)
		Perennial surface water (lake	* *	on/saturation. S	core one or dbl check.
3c. Maxim	num water dep	oth. Select only one and assign score.			Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2		2	Regularly inundated/saturated (3) Seasonally inundated (2)
		1 <0.4m (<15.7in) (1)	,		Seasonally saturated in upper 30cm (12in) (1)
			ime. Score one or double check and average	je.	
		None or none apparent (12) Recovered (7)	Check all disturbances observed ditch		point source (nonstormwater)
		Recovering (3)	tile		filling/grading
		Recent or no recovery (1)	dike weir	х	road bed/RR track dredging
			stormwater input		Other:
	_	-			
8	31	Metric 4. Habitat Altera	ation and Development		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or o	•		
		None or none apparent (4)			
		Recovered (3) 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) 2 Poor to fair (2)			
		Poor (1)			
		4c. Habitat alteration. Score one or doubl			
		None or none apparent (9) Recovered (6)	Check all disturbances observed x mowing		shrub/sapling removal
		3 Recovering (3)	grazing		herbaceous/aquatic bed removal
		Recent or no recovery (1)	X clearcutting		sedimentation
	31	1	X selective cutting woody debris removal		dredging farming
SI	ubtotal this page	■ 9	toxic pollutants		nutrient enrichment

Site:	Poston-	<u>-Lick Wet 18</u>	Rat	ter(s): Tim Walters	Date: Oct 2015	
	31 subtotal first page					
0	31	Metric 5. S	pecial Wetlands	i .		
max 10 pts.	subtotal	Check all that apply	and score as indicated.			
		Bog (10)			
		Fen (10)			
		Old gro	vth forest (10)			
		Mature	orested wetland (5)			
		Lake Er	e coastal/tributary wetland -	unrestricted hydrology (10)		
		Lake Er	e coastal/tributary wetland-re	estricted hydrology (5)		
		Lake PI	ain Sand Prairies (Oak Open	ings) (10)		
		Relict V	et Prairies (10)			
			, ,	atened or endangered species (10)		
			int migratory songbird/water			
			y 1 Wetland. See Question	5 , ,		
_	0.4			5 ,	rotonography	
3	34			es, interspersion, mic		
max 20 pts.	subtotal	6a. Wetland Vegeta Score all present us		Vegatation Community Cover	Absent or comprises <0.1ha (0.2471 acres) contiguous area	
		Aquatic	_		Present and either comprises small part of wetland's vegetation a	
		2 Emerge		1	of moderate quality, or comprises a significant part but is of low q	uality
		Shrub			Present and either comprises significant part of wetland's vegetat	ion
		Forest		2	and is of moderate quality, or comprises a small part and is of hig quality.	h
		Mudflat			Present and comprises significant part, or more, of wetland's	
		Open W		3	vegetation and is of high quality.	
			alci			
		Other_ 6b. Horizontal (plan	view) Interspersion.	Narrative Description of Vege	tation Quality	
		Score only one.			Low spp diversity and/or predominance of nonnative or disturband	се
		High (5)		low	tolerant native species	
		Modera	ely high (4)	mod	Native spp are dominant component of the vegetation, although	ont
		Modera	e (3)		nonnative and/or disturbance tolerant native spp can also be pres and species diversity moderate to moderately high, but generally	
		Modera	ely low (2)		presence of rare, threatened, or endangered spp	
		Low (1)		high	A predominance of native species, with nonnative spp and/or	
		0 None (0)		disturbance tolerant native spp absent or virtually absent, and hig spp diversity and often, but not always, the presence of rare,	n
		-	asive plants. Refer to		threatened, or endangered spp	
		Table 1 ORAM long deduct points for co		Mudflat and Open Water Clas	s Quality Absent <0.1ha (0.247 acres)	
			ve >75% cover (-5)	<u>0</u> 1	Low 0.1 to <1ha (0.247 acres)	
			. ,	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	
			e 25-75% cover (-3)	3	,	
			5-25% cover (-1)		High 4ha (9.88 acres) or more	
		0 Nearly a	bsent <5% cover (0)	Microtopography Cover Scale		
		Absent 6d. Microtopograph		0	Absent	
		Score all present us		1	Present in very small amounts or if more common of marginal qua	ality
		Vegetat	ed hummucks/tussucks	-	Present in moderate amounts, but not of highest quality or in small	.11
		Coarse	woody debris >15cm (6in)	2	Present in moderate amounts, but not of highest quality or in sma amounts of highest quality	"
		Standin	g dead >25cm (10in) dbh			
			an breeding pools	3	Present in moderate or greater amounts and of highest quality	
24]					
34	JGKANI	ノ IUIAL (m	ax 100 pts)			

Site:	Poston	-Lick Wet 19	Rater(s): Tim Walters	Date: Oct 2015			
		-		•			
1	1	Metric 1. Wetland Area	(cizo)				
•		Select one size class and assign sco					
max 6 pts.	subtotal	>50 acres (>20.2ha) (6 pts)	ne.				
		25 to <50 acres (10.1 to <20.2	?ha) (5 pts)				
		10 to <25 acres (4 to <10.1 ha	a) (4 pts)	Approximated.			
		3 to <10 acres (1.2 to <4 ha) (3 pts)	0.149 acre within corridor			
		0.3 to < 3 acres (012 to <1.2h					
		1 0.1 to <0.3 acres (0.04 to <0.1	2ha) (1 pt)				
1	T	<0.1 acres (0.04ha) (0 pts)					
9	10	Metric 2 Unland buffe	rs and surrounding land	Lueo			
max 14 pts.	subtotal		t only one and assign score. Do not double				
max pto.	oubtota.		164 ft) or more around wetland perimeter (7				
			m to <50m (82 to <164ft) around wetland pe				
		NARROW. Buffers average 1	0m to <25m (32ft to <82ft) around wetland p	perimeter (1)			
		<u> </u>	erage <10m (<32ft) around wetland perimete	r (0)			
		2b. Intensity of surrounding land use. Sel	_				
			der forest, prairie, savannah, wildlife area, e	tc. (/)			
			LOW. Old field (>10 years), shrubland, young second growth forest. (5) MODERATELY HIGH. Residential, fenced pasture, park, conservation tillage, new fallow field. (3)				
			pasture, row cropping, mining, construction	-			
			, i i i i i i i i i i i i i i i i i i i				
16	26	Metric 3. Hydrology.					
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	/ .	3b. Connectivity. Score all that apply.			
		High pH groundwater (5)		100 year floodplain (1)			
		Other groundwater (3)		1 Between stream/lake and other human use (1)			
		1 Precipitation (1)	(2)	Part of wetland/upland (e.g. forest), complex (1)			
		3 Seasonal/Intermittent surface Perennial surface water (lake		1 Part of riparian or upland corridor (1) on/saturation. Score one or dbl check.			
3c Maxim	num water der	oth. Select only one and assign score.	or stream (5)	Semi- to permanently inundated/saturated (4)			
JC. Waxiii	ium water dep	>0.7 (27.6in) (3)		Regularly inundated/saturated (3)			
		0.4 to 0.7m (15.7 to 27.6in) (2)	2 Seasonally inundated (2)			
		1 <0.4m (<15.7in) (1)		Seasonally saturated in upper 30cm (12in) (1)			
			ime. Score one or double check and average	ge.			
		None or none apparent (12)	Check all disturbances observed	noint course (nonetermuster)			
		7 Recovered (7) Recovering (3)	ditch tile	point source (nonstormwater) filling/grading			
		Recent or no recovery (1)	dike	x road bed/RR track			
		, , ,	weir	dredging			
			stormwater input	Other:			
		<u> </u>					
10	36	Matria 4 Habitat Altan	ation and Davidonment				
_		<u>-</u>	ation and Development.				
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or or None or none apparent (4)	double check and average.				
		3 Recovered (3)					
		Recovering (2)					
		Recent or no recovery (1)					
		4b. Habitat development. Select only one	and assign score.				
		Excellent (7)					
		Very good (6)					
		Good (5)					
		4 Moderately good (4) Fair (3)					
		Poor to fair (2)					
		Poor (1)					
		4c. Habitat alteration. Score one or doubl	e check and average.				
		None or none apparent (9)	Check all disturbances observed	·			
		Recovered (6)	mowing	shrub/sapling removal			
		3 Recovering (3)	grazing	herbaceous/aquatic bed removal			
		Recent or no recovery (1)	X clearcutting	sedimentation			
	36		X selective cutting woody debris removal	x dredging farming			
SI	ubtotal this page	.	toxic pollutants	nutrient enrichment			

Site:	Poston-	Lick Wet 19	Rater(s	s): Tim Walters	Date: Oct 2015	
s	36 subtotal first page					
0	36	Metric 5. Specia	al Wetlands.			
max 10 pts.	subtotal	Check all that apply and sco	ore as indicated.			
		Bog (10)				
		Fen (10)				
		Old growth fore:	st (10)			
		Mature forested	wetland (5)			
		Lake Erie coast	al/tributary wetland -unres	tricted hydrology (10)		
		Lake Erie coast	al/tributary wetland-restrict	ed hydrology (5)		
		Lake Plain Sand	d Prairies (Oak Openings)	(10)		
		Relict Wet Prair		. ,		
			. ,	d or endangered species (10)		
			atory songbird/water fowl h	• • • • • •		
			land. See Question 1 Qua	5 . ,		
				5	voto no avendo.	
3	39		•	interspersion, mic		
max 20 pts.	subtotal	6a. Wetland Vegetation Cor Score all present using 0 to		Vegatation Community Cover	Absent or comprises <0.1ha (0.2471 acres) contiguous area	
		Aquatic bed			Present and either comprises small part of wetland's vegetatio	
		Emergent		1	of moderate quality, or comprises a significant part but is of lov	v quality
		2 Shrub			Present and either comprises significant part of wetland's vege	etation
		Forest		2	and is of moderate quality, or comprises a small part and is of quality.	high
		Mudflats			Present and comprises significant part, or more, of wetland's	
				3	vegetation and is of high quality.	
		Open Water				
		Other6b. Horizontal (plan view) Ir	nterspersion	Narrative Description of Vege	tation Quality	
		Score only one.			Low spp diversity and/or predominance of nonnative or disturb	ance
		High (5)		low	tolerant native species	
		Moderately high	(4)	mod	Native spp are dominant component of the vegetation, although	_
		Moderate (3)			nonnative and/or disturbance tolerant native spp can also be p and species diversity moderate to moderately high, but genera	
		Moderately low	(2)		presence of rare, threatened, or endangered spp	
		Low (1)		high	A predominance of native species, with nonnative spp and/or	
		0 None (0)			disturbance tolerant native spp absent or virtually absent, and spp diversity and often, but not always, the presence of rare,	nign
		6c. Coverage of invasive pla			threatened, or endangered spp	
		Table 1 ORAM long form for deduct points for coverage.	list. Add or	Mudflat and Open Water Clas	s Quality Absent <0.1ha (0.247 acres)	
		Extensive >75%	cover (-5)	1	Low 0.1 to <1ha (0.247 to 2.47 acres)	
		Moderate 25-75	, ,	2	Moderate 1 to <4ha (2.47 to 9.88 acres)	-
		Sparse 5-25% o	, ,	3	High 4ha (9.88 acres) or more	
					,	
			5% cover (0)	Microtopography Cover Scale		
		Absent (1) 6d. Microtopography.		0	Absent	
		Score all present using 0 to	3 scale.	1	Present in very small amounts or if more common of marginal	quality
		Vegetated humi	mucks/tussucks	2	Present in moderate amounts, but not of highest quality or in s	mall
		Coarse woody o	debris >15cm (6in)		amounts of highest quality	
		Standing dead	>25cm (10in) dbh			
		1 Amphibian bree	ding pools	3	Present in moderate or greater amounts and of highest quality	r
39	GRANI	D TOTAL (max 1	00 pts)			

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1)	•	_ True Aquatic Plants (B14)		egetated Concave	Surface (B8)
High Water Table (A2)	·	_ Hydrogen Sulfide Od	•		atterns (B10)	
Saturation (A3)	<u> </u>	-	es on Living Roots (C3)) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches):		and Hydrology Present? Yes No		
(includes capillary fringe)					ent: Tes	NO
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet:
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

L						npling Point:	
file Description: (Describe to the dept			ator or confir	m the absence	e of indicators	s.)	
pth Matrix ches) Color (moist) %		x Features	mo ¹ Loo ²			Domorlo	
ches) Color (moist) %	Color (moist)	<u>%</u> <u>T</u> y	rpe ¹ Loc ²	Texture		Remarks	
		- 			<u> </u>		
				_			
				_			-
		- 	·				
		- 					
				_			
				-			
				-			
					·		
		. —————					
pe: C=Concentration, D=Depletion, RM=	Reduced Matrix MS	S=Masked Sar	nd Grains	² Location: P	L=Pore Lining	M=Matrix	
dric Soil Indicators:	-reduced Matrix, Mi	0-Masked Gai	id Oranis.			olematic Hydri	c Soils
Histosol (A1)	Dark Surface	e (S7)				0) (MLRA 147)	
Histic Epipedon (A2)		elow Surface (S	S8) (MI RA 14		Coast Prairie R		
Black Histic (A3)		urface (S9) (ML			(MLRA 147,		
Hydrogen Sulfide (A4)		ed Matrix (F2)	, ,			dplain Soils (F1	9)
Stratified Layers (A5)	Depleted Ma				(MLRA 136,		,
2 cm Muck (A10) (LRR N)	Redox Dark			1	Red Parent Ma		
Depleted Below Dark Surface (A11)	Depleted Da	rk Surface (F7))	`	Very Shallow D	ark Surface (Ti	- 12)
Thick Dark Surface (A12)	Redox Depre	essions (F8)		(Other (Explain	in Remarks)	
Sandy Mucky Mineral (S1) (LRR N,	Iron-Mangan	ese Masses (F	12) (LRR N,				
MLRA 147, 148)	MLRA 13	•		2			
Sandy Gleyed Matrix (S4)		ace (F13) (MLF				rophytic vegeta	
Sandy Redox (S5)	Piedmont Flo	oodplain Soils	(F19) (MLRA 1	•	-	ogy must be pre	
Stripped Matrix (S6)				١	unless disturbe	d or problemati	C.
strictive Layer (if observed):							
Туре:							
Depth (inches):				Hydric Soi	I Present?	Yes N	No
narks:				•			

Site:	Poston-	-Lick Wet 20	Rater(s): Tim Walters	Date: Oct 2015	
]			
2	2	Metric 1. Wetland Area	ı (size).		
max 6 pts.	subtotal	Select one size class and assign sco	re.		
		>50 acres (>20.2ha) (6 pts) 25 to <50 acres (10.1 to <20.2	ha) (5 pts)		
		10 to <25 acres (4 to <10.1 ha		Approximated	
		3 to <10 acres (1.2 to <4 ha) (0.017 acre within corridor
		2 0.3 to < 3 acres (012 to <1.2ha 0.1 to <0.3 acres (0.04 to <0.1	, ,		
		<0.1 acres (0.04ha) (0 pts)	, , ,		
9	11	Metric 2 Unland buffe	rs and surrounding land	ΠΕΔ	
max 14 pts.	subtotal		t only one and assign score. Do not double		
			164 ft) or more around wetland perimeter (7)		
			m to <50m (82 to <164ft) around wetland per 0m to <25m (32ft to <82ft) around wetland pe		
			rage <10m (<32ft) around wetland perimeter		
		2b. Intensity of surrounding land use. Sel-	_		
			der forest, prairie, savannah, wildlife area, et nrubland, young second growth forest. (5)	c. (7)	
			ential, fenced pasture, park, conservation tilla	age, new fallow fie	eld. (3)
		HIGH. Urban, industrial, open	pasture, row cropping, mining, construction.	. (1)	
17	28	Metric 3. Hydrology.			
max 30 pts.	subtotal	3a. Sources of Water. Score all that apply	<i>.</i> .	3b. Connectivity	y. Score all that apply.
		High pH groundwater (5)			100 year floodplain (1)
		Other groundwater (3)			Between stream/lake and other human use (1)
		1 Precipitation (1) 3 Seasonal/Intermittent surface	water (3)		Part of wetland/upland (e.g. forest), complex (1) Part of riparian or upland corridor (1)
		Perennial surface water (lake	. ,		core one or dbl check.
3c. Maxim	um water dep	oth. Select only one and assign score.			Semi- to permanently inundated/saturated (4)
		>0.7 (27.6in) (3) 0.4 to 0.7m (15.7 to 27.6in) (2			Regularly inundated/saturated (3) Seasonally inundated (2)
		1 <0.4m (<15.7in) (1)			Seasonally saturated in upper 30cm (12in) (1)
		None or none apparent (12)	ime. Score one or double check and averag Check all disturbances observed	е.	
		7 Recovered (7)	ditch		point source (nonstormwater)
		Recovering (3)	tile		filling/grading
		Recent or no recovery (1)	dike weir		road bed/RR track dredging
			stormwater input		Other:
	1	1			
9	37	Metric 4. Habitat Altera	ation and Development.		
max 20 pts.	subtotal	4a. Substrate disturbance. Score one or o	• • • • • • • • • • • • • • • • • • •		
		None or none apparent (4)			
		3 Recovered (3) Recovering (2)			
		Recent or no recovery (1)			
		4b. Habitat development. Select only one Excellent (7)	and assign score.		
		Very good (6)			
		Good (5)			
		Moderately good (4)			
		3 Fair (3) Poor to fair (2)			
		Poor (1)			
		4c. Habitat alteration. Score one or doubl	e check and average. Check all disturbances observed		
		None or none apparent (9) Recovered (6)	x mowing		shrub/sapling removal
		3 Recovering (3)	grazing		herbaceous/aquatic bed removal
ı		Recent or no recovery (1)	X clearcutting X selective cutting		sedimentation dredging
	37		woody debris removal		farming
SU	ubtotal this page		toxic pollutants		nutrient enrichment

Site:	Poston-	Lick W	et 20	Rater(s): Tim Walters	Date: Oct 2015	
	37 ubtotal first page					
0	37	Metric	5. Special Wetlar	nds.		
max 10 pts.	subtotal	Check all th	nat apply and score as indicated	1.		
			Bog (10)			
			Fen (10)			
			Old growth forest (10)			
			Mature forested wetland (5)			
			Lake Erie coastal/tributary wetl	and -unrestricted hydrology (10)		
			Lake Erie coastal/tributary wetl			
			Lake Plain Sand Prairies (Oak			
			Relict Wet Prairies (10)	- F		
			1	al threatened or endangered species (10)		
			†	water fowl habitat or usage (10)		
			Category 1 Wetland. See Que	5 , ,		
_	I	B.		- ' '	(
6	43			nities, interspersion, mic		
max 20 pts.	subtotal		d Vegetation Communities. resent using 0 to 3 scale.	Vegatation Community Cove	Absent or comprises <0.1ha (0.2471 acres) contiguous area	
		Coore an pr	Aquatic bed	0	Present and either comprises small part of wetland's vegetation an	nd is
		2	Emergent	1	of moderate quality, or comprises a significant part but is of low qu	ality
		2	1 ~	·	Present and either comprises significant part of wetland's vegetation	on
			Shrub	2	and is of moderate quality, or comprises a small part and is of high	
			Forest		quality. Present and comprises significant part, or more, of wetland's	
			Mudflats	3	vegetation and is of high quality.	
			Open Water	-		
		6h Horizor	Other ntal (plan view) Interspersion.	Narrative Description of Veg	netation Quality	
		Score only		Turidave Bescription of Vegi	Low spp diversity and/or predominance of nonnative or disturbance	e
			High (5)	low	tolerant native species	
			Moderately high (4)	mod	Native spp are dominant component of the vegetation, although	
			Moderate (3)		nonnative and/or disturbance tolerant native spp can also be prese and species diversity moderate to moderately high, but generally v	
			Moderately low (2)		presence of rare, threatened, or endangered spp	
		1	Low (1)	high	A predominance of native species, with nonnative spp and/or	
			None (0)		disturbance tolerant native spp absent or virtually absent, and high spp diversity and often, but not always, the presence of rare,	1
		6c. Covera	age of invasive plants. Refer to		threatened, or endangered spp	
			AM long form for list. Add or	Mudflat and Open Water Clas	•	
		deduct poin	nts for coverage.	0 1	Absent <0.1ha (0.247 acres)	
			Extensive >75% cover (-5)	2	Low 0.1 to <1ha (0.247 to 2.47 acres)	
			Moderate 25-75% cover (-3)		Moderate 1 to <4ha (2.47 to 9.88 acres)	
			Sparse 5-25% cover (-1)	3	High 4ha (9.88 acres) or more	_
		0	Nearly absent <5% cover (0)	Microtopography Cover Scal	le	
		Cd Missate	Absent (1)	0	Absent	
		6d. Microto Score all pr	opograpny. resent using 0 to 3 scale.	1	Present in very small amounts or if more common of marginal qua	lity
			Vegetated hummucks/tussucks			
			Coarse woody debris >15cm (6	2 Bin)	Present in moderate amounts, but not of highest quality or in small amounts of highest quality	1
			Standing dead >25cm (10in) di	bh	†	
	3	1	Amphibian breeding pools	3	Present in moderate or greater amounts and of highest quality	
43	GRANI	TOTA	AL (max 100 pts)			

Project/Site:		City/C	County:		_ Sampling Date:	
Applicant/Owner:				State:	Sampling Poir	nt:
Investigator(s):		Section	on, Township, Range:			
Landform (hillslope, terrace, e						pe (%):
Subregion (LRR or MLRA):						
Soil Map Unit Name:						
Are climatic / hydrologic condi					·	
· -		•				NI.
Are Vegetation, Soil					present? Yes	NO
Are Vegetation, Soil	, or Hydrology	naturally problemate	atic? (If needed,	, explain any answ	ers in Remarks.)	
SUMMARY OF FINDING	GS – Attach site ı	map showing san	npling point locat	ions, transect	s, important fe	eatures, etc
Hydrophytic Vegetation Pres	sent? Yes	No				
Hydric Soil Present?		No	Is the Sampled Area		Na	
Wetland Hydrology Present?		No	within a Wetland?	For We	No	
Remarks:						
HYDROLOGY						
Wetland Hydrology Indicat	ors:			Secondary India	cators (minimum of	two required)
Primary Indicators (minimum		ck all that apply)		Surface So	•	<u></u>
Surface Water (A1)	•	_ True Aquatic Plants (B14)		egetated Concave	Surface (B8)
High Water Table (A2)	·	_ Hydrogen Sulfide Od	•		atterns (B10)	
Saturation (A3)	<u> </u>	-	es on Living Roots (C3)) Moss Trim	Lines (B16)	
Water Marks (B1)	_	_ Presence of Reduced	d Iron (C4)	Dry-Seasor	n Water Table (C2)	
Sediment Deposits (B2)	_	Recent Iron Reduction	n in Tilled Soils (C6)	Crayfish Bu	ırrows (C8)	
Drift Deposits (B3)	_	_ Thin Muck Surface (0	27)	Saturation \	Visible on Aerial Im	agery (C9)
Algal Mat or Crust (B4)		Other (Explain in Rer	marks)		Stressed Plants (D	1)
Iron Deposits (B5)					c Position (D2)	
Inundation Visible on Ae				Shallow Aq		
Water-Stained Leaves (39)				raphic Relief (D4)	
Aquatic Fauna (B13)				FAC-Neutra	ai Test (D5)	
Field Observations: Surface Water Present?	Voc. No.	Depth (inches):				
Water Table Present?						
Saturation Present?		Depth (inches):		and Hydrology Present? Yes No		
(includes capillary fringe)					ent: Tes	NO
Describe Recorded Data (str	eam gauge, monitoring	well, aerial photos, pre	evious inspections), if av	/ailable:		
Remarks:						

	Total Cover	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
2	Total Cover	Total Number of Dominant Species Across All Strata:
4	Total Cover	Percent of Dominant Species That Are OBL, FACW, or FAC: (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 =
6	Total Cover	Prevalence Index worksheet:
8 =	Total Cover	Total % Cover of: Multiply by: OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1	Total Cover	OBL species x 1 =
Sapling/Shrub Stratum (Plot size:) 1		
2. 3. 4.		FACW species x 2 =
2. 3. 4.		FAC species x 3 =
4		FACU species x 4 =
		UPL species x 5 =
5.		Column Totals: (A) (B)
		Prevalence Index = B/A =
6		Hydrophytic Vegetation Indicators:
7		1 - Rapid Test for Hydrophytic Vegetation
8		2 - Dominance Test is >50%
9		3 - Prevalence Index is ≤3.0 ¹
10 = -		4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot size:)		Problematic Hydrophytic Vegetation ¹ (Explain)
1		
2		¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4		Definitions of Four Vegetation Strata:
5		Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or
6		more in diameter at breast height (DBH), regardless of
7		height.
8		Sapling/Shrub – Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall.
10		
11		Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12		
Woody Vine Stratum (Plot size:)	Total Cover	Woody vine – All woody vines greater than 3.28 ft in height.
1		
2		
3		
4		Hydrophytic
5		Vegetation Present? Yes No
6		Tresent: Tes NO
Remarks: (Include photo numbers here or on a separate sheet.)	Total Cover	

APPENDIX D

Agency Correspondences

From: Ann M. Stevens

Sent: Monday, April 13, 2015 4:48 PM **To:** 'obdrequest@dnr.state.oh.us'

Subject: Natural Heritage Research, Poston-Lick 138kV Transmission line, Athens, Vinton &

Jackson Counties, Ohio

Attachments: Poston Lick Natural Heritage.pdf; Poston - Lick Location Map.pdf; Poston - Lick.zip

To whom it may concern:

We are requesting a Natural Heritage database research in preparation for an application to the Ohio Power Siting Board for an electrical transmission line Letter of Notification.

I have included a location map and shapefile for use with GIS.

Thank you very much for your assistance. Please feel free to contact me if you have any questions.

Ann M. Stevens, RLA*, PMP

* Michigan, Ohio, Indiana, Pennsylvania & Illinois Project Manager Environmental Services & Licensing

O (517) 768-7127 C (517) 879-7471 Deliveries to: 2700 West Argyle Street, Jackson, MI 49202 Mail to: PO Box 1124, Jackson, MI 49204 www.cai-engr.com

COMMONWEALTH ASSOCIATES, INC.

Employee Owned and Managed since 1988

NATURAL HERITAGE DATA REQUEST FORM

OHIO DEPARTMENT OF NATURAL RESOURCES DIVISION OF WILDLIFE OHIO NATURAL HERITAGE PROGRAM 2045 MORSE RD., BLDG. G-3 COLUMBUS, OHIO 43229-6693 OHIO

OF THE PROPERTY OF WILDLIFE

PHONE: 614-265-6452; EMAIL: obdrequest@dnr.state.oh.us

INSTRUCTIONS:

Please complete both pages of this form, sign and return it to the address or email address above along with: **(1)** a brief letter describing your project, and **(2)** a map detailing the boundaries of your project site. A copy of the pertinent portion of a USGS 7.5 minute topographic map is preferred but other maps are acceptable. Data requests will be competed within approximately 30 days. There is currently no charge for data requests.

WHAT WE PROVIDE: The Natural Heritage Database is the most comprehensive source of information on the location of Ohio's rare species and significant natural features. Records for the following will be provided: plants and animals (state and federal listed species), high quality plant communities, geologic features, breeding animal concentrations and unprotected significant natural areas. We also provide locations for managed areas including federal, state, county, local and non-profit sites, as well as state and national scenic rivers. A minimum one mile radius around the project site will automatically be searched. Because the data is sensitive information, it is our policy to provide only the data needed to complete your project. The information is generally provided without comment on potential impacts to the species and their habitats and therefore does not constitute coordination with ODNR under NEPA, the Fish & Wildlife Coordination Act or the Federal Water Pollution Control Act. If your project requires ODNR coordination, please submit it for a more extensive environmental review by contacting John Kessler in the Office of Real Estate at 614-265-6621 or john.kessler@dnr.state.oh.us

~~~~~					
Date:	4/13/2015	Company name:	Com	monwealth A	ssociates, Inc.
Name of	f person response letter	should be addresse	ed to:	Mr. □ Ms. 🛚	Ann M. Stevens
	: 2700 West Argyl Jackson, M	i 49202			
City/Stat	te/Zip:				
Phone: _	517-728-7127	F	ax:	517-788-300	03
E-mail a	ddress: amsteven	s@cai-engr.com			
Project N	Name: Poston-Lick 1	38kV Transmissio	n Line	Э	
Project N	Number				

Project Site Address: Linear transm	nission line project, no address
Project County: Athens, Vinton &	Jackson Counties, Ohio
Project City/Township: Lick, Wellsto	on, Clinton, Vinton, Madison, Knox, Waterloo, Dover, York
Project site is located on the following	g USGS 7.5 minute topographic quad(s):
Nelsonville, The Plains, Mineral,	Val Mills, McArthur, Wilkesville, Jackson
	ilable (decimal degrees is preferred): end of the project is -82.179422/39.382517 d of the project is -82.609188/39.043682
Description of work to be performed a	at the project site: Re-building an electrical transmission
line on existing right of way.	
difference is in the format of our resp	? (Both formats provide exactly the same data. The only onse. The manual search is most appropriate for small thave GIS capabilities. Please choose only one option.)
Printed list and map (manual search)	OR GIS shapefile (computer search) <u>GIS Shap</u> efile
Additional information you require: _	Locations of rare plants, and animals, eagle nests, natural areas, and bat habitat within 5 miles of project.
How will the information be used?	Project Planning
crediting the ODNR Division of Wildlin	o Natural Heritage Program will not be published without fe as the source of the material. In addition, I certify that uted to others without the consent of the Division of Wildlife,

DNR 5203 REV 3/2013 **From:** DNR obdrequest < obdrequest@dnr.state.oh.us>

**Sent:** Tuesday, April 14, 2015 9:32 AM

To: Ann M. Stevens

Subject: RE: Natural Heritage Research, Poston-Lick 138kV Transmission line, Athens, Vinton &

Jackson Counties, Ohio

**Attachments:** conservation_sites.dbf; conservation_sites.prj; conservation_sites.sbn;

conservation_sites.sbx; conservation_sites.shp; conservation_sites.shx; data.dbf; data.prj;

data.sbn; data.sbx; data.shp; data.shp.xml; data.shx; managed_areas.dbf;

managed_areas.prj; managed_areas.sbn; managed_areas.sbx; managed_areas.shp; managed_areas.shx; sensitive_species.dbf; sensitive_species.prj; sensitive_species.sbx; sensitive_species.shp; sensitive_species.shx; poston-lick letter.pdf

Ann, Attached please find your response. Debbie

Debbie Woischke
Ohio Natural Heritage Database
ODNR Division of Wildlife
2045 Morse Rd., G-3
Columbus, OH 43229

Phone: 614-265-6818



Ohio Division of Wildlife Scott Zody, Chief 2045 Morse Rd., Bldg. G Columbus, OH 43229-6693

Phone: (614) 265-6300

April 14, 2015

Ann Stevens Commonwealth Associates, Inc. PO Box 1124 Jackson, MI 49204

Dear Ms. Stevens,

Per your request, I have e-mailed you a set of shapefiles with our Natural Heritage Program data for the Poston-Lick 138 kV Transmission Line Rebuild project, including a one mile radius, in Athens, Vinton and Jackson County, Ohio, and on the Nelsonville, The Plains, Mineral, Vales Mills, McArthur, Mulga and Wellston Quads. This data will not be published or distributed beyond the scope of the project description on the data request form without prior written permission of the Natural Heritage Program.

Records included in the data layer may be for rare and endangered plants and animals, geologic features, high quality plant communities and animal assemblages. Fields included are scientific and common names, state and federal statuses, as well as managed area and date of the most recent observation. State and federal statuses are defined as: E = endangered, T = threatened, P = potentially threatened, SC = species of concern, SI = special interest, FE = federal endangered, FT = federal threatened and A = recently added to inventory, status not yet determined.

In addition to the species given in the data shapefile, there is a record for one or more sensitive species within your project study area. Please be aware that we do not give out specific locations for sensitive species, therefore a generalized location is shown in the sensitive species shapefile.

The managed areas layer includes state, federal and county lands, as well as areas owned by non-profits, museums and other entities. Managed areas are sites under formal protection for their natural resources. Please be aware that this layer may not be complete and we are continually updating it as new information becomes available to us.

The conservation sites layer shows areas deemed by the Natural Heritage Program to be high quality sites not currently under formal protection. They may, for example, harbor one or more rare species, be an outstanding example of a plant community, or have geologically significant features, etc. These sites may be in private ownership and our listing of them does not imply permission for access.

Our inventory program has not completely surveyed Ohio and relies on information supplied by many individuals and organizations. Therefore, a lack of records for any particular area is not a

statement that rare species or unique features are absent from that area. This letter only represents a review of rare species and natural features data within the Ohio Natural Heritage Database. It does not fulfill coordination under the National Environmental Policy Act (NEPA) or the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S. C. 661 et seq.) and does not supersede or replace the regulatory authority of any local, state or federal agency nor relieve the applicant of the obligation to comply with any local, state or federal laws or regulations.

Please contact me at 614-265-6818 if I can be of further assistance.

Sincerely,

Debbie Woischke

Ohio Natural Heritage Program

Debbie Worschhe

From: Ann M. Stevens

**Sent:** Monday, April 13, 2015 2:54 PM

**To:** 'john.kessler@dnr.state.oh.us'; Tebbe, Sarah (Sarah.Tebbe@dnr.state.oh.us)

Cc: 'Ronald M Howard - AEP (rmhoward@aep.com)'

**Subject:** Environmental Review Coordination for Ohio Siting Board application, Poston-Lick

138kV Transmission line, Athens, Vinton & Jackson Counties, Ohio

**Attachments:** Poston - Lick.zip; Poston - Lick Location Map.pdf

John:

We are requesting an environmental review by the ODNR in preparation for an application to the Ohio Power Siting Board for an electrical transmission line Letter of Notification.

Our client American Electric Power is proposing to re-build an above ground electric transmission line in, Athens, Vinton and Jackson Counties, Ohio. The project extends approximately 35 miles on existing 100 foot wide right of way. Two segments of the line will be rebuilt while the middle portion now fed by the recently completed Elk line will be abandoned. The portion of line to be rebuilt is approximately 22 miles and extends from the Poston Station to Structure 72 (15 miles) and from Structure 138 to the Lick Station (7 miles). The segment of line between US 50 and State Route 184 (Kisor Road), Structures 72 and 138, will be abandoned (approximately 13 miles). The transmission line right of way has been semi-routinely maintained since construction in 1957 and is primarily clear of trees and woody vegetation. Limited tree clearing will be necessary for construction access and to meet current safety standards. No inwater work is proposed.

The Latitude/Longitude of the Poston Station at the north end of the project is -82.179422/39.382517 The Latitude/Longitude of the Lick Station at the south end of the project is -82.609188/39.043682

We have also requested information from the Ohio Natural Heritage Program, Division of Wildlife, and the US Fish & Wildlife Service. I have included a location map and shapefile for use with GIS.

I recognize that any information provided to the Ohio Department of Natural Resources constitutes a public record subject to disclosure.

Thank you very much for your assistance. Please feel free to contact me if you have any questions.

Ann M. Stevens, RLA, PMP
Project Manager
Environmental Services & Licensing

O (517) 768-7127 C (517) 879-7471 Deliveries to: 2700 West Argyle Street, Jackson, MI 49202 Mail to: PO Box 1124, Jackson, MI 49204 www.cai-engr.com

COMMONWEALTH ASSOCIATES, INC.

EMPLOYEE-OWNED AND MANAGED FOR 25 YEARS

**From:** Tebbe, Sarah <sarah.tebbe@dnr.state.oh.us>

**Sent:** Monday, May 18, 2015 1:31 PM

To: Ann M. Stevens

**Cc:** Kessler, John; 'Sharon Brown' (srbrown@D30043642.purehost.com)

**Subject:** 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments

**Attachments:** 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments.pdf; Approved Herpetologists.pdf

Hi Ann,

Please see the attached comments.

Thanks,

Sarah Tebbe Office of Real Estate Ohio Department of Natural Resources 2045 Morse Rd., Columbus, OH 43229-6605 614 -265-6397



Office of Real Estate

Paul R. Baldridge, Chief 2045 Morse Road – Bldg. E-2 Columbus, OH 43229 Phone: (614) 265-6649

Fax: (614) 267-4764

May 18, 2015

Ann M. Stevens Commonwealth Associates, Inc. 2700 West Argyle Street Jackson, Michigan 49204

**Re:** 15-307; Environmental Review Coordination for Ohio Siting Board application, Poston-Lick 138kV Transmission line

**Project:** The proposed project involves the re-building of approximately 35 miles of an above ground electric transmission line.

**Location:** The project is located in Athens and Vinton Counties, Ohio.

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

**Natural Heritage Database:** The Natural Heritage Database has the following data at or within a one mile radius of the project area:

Butterfly-pea (Clitoria mariana), P Bartley's reed grass (Calamagrostis porteri ssp. insperata), T Pedestal rock Blunt-leaved milkweed (Asclepias amplexicaulis), P Carolina thistle (Cirsium carolinianum), T Mixed mesophytic forest plant community Buttonbush shrub swamp plant community Green adder's-mouth (Malaxis unifolia), P Hemlock-hardwood forest plant community Floodplain forest plant community Large marsh st. john's-wort (*Triadenum tubulosum*), T Straw sedge (Carex straminea), P Oak-pine forest plant community Natural bridge or arch Mixed emergent marsh plant community Spotted pondweed (Potamogeton pulcher), E

Fringe-tree (*Chionanthus virginicus*), P Ashy sunflower (*Helianthus mollis*), T Round-fruited hedge-hyssop (*Gratiola virginiana*), T Short-fringed sedge (*Carex crinita var. brevicrinis*), T Eastern box turtle (*Terrapene carolina*), SC

Tennessee pondweed (Potamogeton tennesseensis), T

White milkweed (Asclepias variegate), P

Dwarf hawthorn (Crataegus uniflora), P

Cerulean warbler (Dendroica cerulean), SC

Chalky ramalina (Ramalina pollinaria), T

Wild kidney bean (Phaseolus polystachios), P

Timber rattlesnake (Crotalus horridus), E, FSC

Jackson County Line Wildlife Area – ODNR Division of Wildlife

Vinton Furnace State Wildlife Area – ODNR Division of Wildlife

Waterloo Wildlife Area – ODNR Division of Wildlife

Vinton Furnace Experimental Forest – ODNR Division of Forestry

Zaleski State Forest – ODNR Division of Forestry

Wayne National Forest – US Forest Service

Hamley Run Floodplain Forest Conservation Site

Lick Swamp Conservation Site

Little Raccoon Creek Marsh Conservation Site

We are unaware of any animal assemblages, scenic rivers, state nature preserves, state or national parks or national wildlife refuges within the project area. The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980.

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

Statuses are defined as: E = state endangered; T = state threatened; P = state potentially threatened; SC = state species of concern; SI = state special interest; A = species recently added to state inventory, status not yet determined; X = presumed extirpated in Ohio; FE = federal endangered, FT = federal threatened, FSC = federal species of concern, FC = federal candidate species

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

A portion of the project route crosses Vinton Furnace Wildlife Area. If existing easement documents do not cover the necessary access at Vinton Furnace Wildlife Area, a Right-of-Entry may be needed. Please contact John Sambuco, DOW Federal Lands Coordinator, at 614-265-6613.

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

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as

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

The project is within the range of the sheepnose (*Plethobasus cyphyus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the pink mucket (*Lampsilis orbiculata*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the little spectaclecase (*Villosa lienosa*), a state endangered mussel, and the fawnsfoot (Truncilla donaciformis), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact these species.

The project is within the range of the Ohio lamprey (*Ichthyomyzon bdellium*), a state endangered fish. The DOW recommends no in-water work in perennial streams at least April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, the project is not likely to impact this species.

The Natural Heritage Database has records within one mile of the project route for the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the proximity of records, and the potential for suitable habitat to be present along the project route and within the vicinity of the project route, the DOW recommends that a habitat suitability survey be conducted to determine if suitable timber rattlesnake habitat is present along the project route. If suitable habitat is found to be present along the project route, the DOW recommends that a presence/absence survey be conducted. The DOW recommends that habitat suitability surveys and presence/absence surveys be conducted by one of the herpetologists from the provided "Approved Herpetologists" list. The results of any habitat suitability survey and any subsequent presence/absence survey can be submitted to Nathan Reardon, DOW Compliance Coordinator, at Nathan.reardon@dnr.state.oh.us.

The project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat along the project route and within the vicinity of the project route, this project is not likely to impact this species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The project is within the range of the black bear (Ursus americanus), a state endangered species. Due to the mobility of this species, this project is not likely to impact this species.

The project is within the range of the American burying beetle (*Nicrophorus americanus*) a state and federal endangered beetle. Due to the habitat requirements of this species, the project is not likely to impact this species.

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

**Forestry:** The Division of Forestry offers the following comments.

The proposed project will occur in part on Zaleski and Vinton Furnace State Forests (Vinton County), within an existing ROW. The contractor has stated that they will work with ODNR Division of Forestry state forest staff as the project progresses. ODNR Division of Forestry recommends limiting any tree removal to the existing right-of-way as much as practical and using all available means to limit erosion.

If access or tree removal beyond the existing easement is required, the party involved must request it through the state forest manager. Pursuant to OAC, the chief of the Division of Forestry can waive forest rules through a special use permit. The Division recommends that the applicant work with state forest staff prior to the submission of the application to ensure completeness. A particular focus for this project will be ensuring any access minimally impacts any long-term research projects. Special use permits are for temporary access only; there is no guarantee of any permanent legal access beyond the existing easement. The Division requires that an application be submitted at least 30 days prior to the planned event.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler ODNR Office of Real Estate 2045 Morse Road, Building E-2 Columbus, Ohio 43229-6693 John.Kessler@dnr.state.oh.us

## Approved Herpetologist

Kent Bekker 542 Centerfield Drive Maumee, Ohio 43537 kbekker@gmail.com 419.376.4384

Jeff Davis 625 Crescent Road Hamilton, Ohio 45013 <u>ohiofrogs@gmail.com</u> 513.868.3154

Gregory Lipps, LLC 1473 County Road 5-2 Delta, Ohio 43515-9657 greglipps@gmail.com 419.376.3441

Tim O. Matson 5696 Matson Rd Geneva, OH 44041 tmatson@cmnh.org 440.417.8196 Ralph Pfingsten 347 Pineview Circle Berea, Ohio 44017 rap347@wideopenwest.com 440.243.7568

Kristin Stanford
OSU Stone Laboratory
P.O. Box 119
Put-in-Bay, OH 43456
theislandsnakelady@yahoo.com
419.285.1847

Doug Wynn 241 Chase Street, Apt. A3L Russell's Point, Ohio 43348 <u>Sistrurus@aol.com</u> 614.306.0313

# **Douglas A. Longpre**

**From:** Douglas A. Longpre

Sent: Wednesday, November 04, 2015 12:02 PM

To: 'Tebbe, Sarah'
Cc: Mark E. Walker

**Subject:** FW: 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments

**Attachments:** 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments.pdf; Approved Herpetologists.pdf

Hi Sarah,

Ann left Commonwealth at the end of May, Mark Walker has taken over as the new Environmental Project Manager, and I am in the process of putting together the T&E Species report to go to the OPSB. In working my way through the documents to be included with the report I noticed that the Office of Real Estate response letter, included in your e-mail to Ann, had the project location as being in Athens and Vinton Counties but not in Jackson County. Our request to the ODNR (4/13/15) included Athens, Vinton, and Jackson Counties and the response from Debbie Woischke (4/14/15), including GIS files and a letter regarding use of the files, covered all three counties. Do you think "Jackson" was accidentally left out of the text? Your letter, as well as the GIS files from NHP, include Lick Swamp, Little Raccoon Creek Marsh, Jackson County Line Wildlife Area, Ashy Sunflower, and Spotted Pondweed - all within Jackson County. Weather it is just a text issue or a review issue would it be possible to get a revised letter that includes Jackson?

Thank you,

Doug

## Douglas A. Longpre

Environmental Specialist
Transmission & Distribution Line Engineering
Environmental Services & Licensing

O (517) 796-5752 Deliveries to: 2700 West Argyle Street, Jackson, MI 49202 Mail to: PO Box 1124, Jackson, MI 49204 www.cai-engr.com

## COMMONWEALTH ASSOCIATES, INC.

**EMPLOYEE OWNED AND MANAGED SINCE 1988** 

**From:** Tebbe, Sarah [mailto:sarah.tebbe@dnr.state.oh.us]

Sent: Monday, May 18, 2015 1:31 PM

To: Ann M. Stevens

Cc: Kessler, John; 'Sharon Brown' (<a href="mailto:srbrown@D30043642.purehost.com">srbrown@D30043642.purehost.com</a>)

Subject: 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application Poston-Lick 138kV

Transmission line Comments

Hi Ann,

Please see the attached comments.

Thanks,

Sarah Tebbe Office of Real Estate Ohio Department of Natural Resources 2045 Morse Rd., Columbus, OH 43229-6605 614 -265-6397

# **Douglas A. Longpre**

From: sarah.tebbe@dnr.state.oh.us

Sent: Wednesday, November 04, 2015 12:23 PM

**To:** Douglas A. Longpre

**Subject:** 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments

**Attachments:** 15-307; CAI - Environmental Review Coordination for Ohio Siting Board application

Poston-Lick 138kV Transmission line Comments.pdf

Mr. Longpre,

Attached is the revised comment letter. Sorry for any inconvenience!

Thanks!

Sarah Tebbe
Ohio Department of Natural Resources
Office of Real Estate
2045 Morse Road
Columbus, Ohio 43229
(614) 265-6397



Office of Real Estate

Fax: (614) 267-4764

Paul R. Baldridge, Chief 2045 Morse Road – Bldg. E-2 Columbus, OH 43229 Phone: (614) 265-6649

November 4, 2015

Ann M. Stevens Commonwealth Associates, Inc. 2700 West Argyle Street Jackson, Michigan 49204

**Re:** 15-307; Environmental Review Coordination for Ohio Siting Board application, Poston-Lick 138kV Transmission line

**Project:** The proposed project involves the re-building of approximately 35 miles of an above ground electric transmission line.

**Location:** The project is located in Athens, Jackson, and Vinton Counties, Ohio.

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

**Natural Heritage Database:** The Natural Heritage Database has the following data at or within a one mile radius of the project area:

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Cerulean warbler (Dendroica cerulean), SC

Chalky ramalina (Ramalina pollinaria), T

Wild kidney bean (Phaseolus polystachios), P

Timber rattlesnake (Crotalus horridus), E, FSC

Jackson County Line Wildlife Area – ODNR Division of Wildlife

Vinton Furnace State Wildlife Area – ODNR Division of Wildlife

Waterloo Wildlife Area – ODNR Division of Wildlife

Vinton Furnace Experimental Forest – ODNR Division of Forestry

Zaleski State Forest – ODNR Division of Forestry

Wayne National Forest – US Forest Service

Hamley Run Floodplain Forest Conservation Site

Lick Swamp Conservation Site

Little Raccoon Creek Marsh Conservation Site

We are unaware of any animal assemblages, scenic rivers, state nature preserves, state or national parks or national wildlife refuges within the project area. The review was performed on the project area you specified in your request as well as an additional one mile radius. Records searched date from 1980.

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

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

A portion of the project route crosses Vinton Furnace Wildlife Area. If existing easement documents do not cover the necessary access at Vinton Furnace Wildlife Area, a Right-of-Entry may be needed. Please contact John Sambuco, DOW Federal Lands Coordinator, at 614-265-6613.

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

The project is within the range of the Indiana bat (*Myotis sodalis*), a state endangered and federally endangered species. The following species of trees have relatively high value as

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

The project is within the range of the sheepnose (*Plethobasus cyphyus*), a state endangered and federally endangered mussel, the fanshell (*Cyprogenia stegaria*), a state endangered and federally endangered mussel, the pink mucket (*Lampsilis orbiculata*), a state endangered and federally endangered mussel, the snuffbox (*Epioblasma triquetra*), a state endangered and federally endangered mussel, the little spectaclecase (*Villosa lienosa*), a state endangered mussel, and the fawnsfoot (Truncilla donaciformis), a state threatened mussel. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact these species.

The project is within the range of the Ohio lamprey (*Ichthyomyzon bdellium*), a state endangered fish. The DOW recommends no in-water work in perennial streams at least April 15 to June 30 to reduce impacts to indigenous aquatic species and their habitat. If no in-water work is proposed, the project is not likely to impact this species.

The Natural Heritage Database has records within one mile of the project route for the timber rattlesnake (*Crotalus horridus*), a state endangered species, and a federal species of concern. The timber rattlesnake is a woodland species. In addition to using wooded areas, the timber rattlesnake also utilizes sunlit gaps in the canopy for basking and deep rock crevices known as den sites for overwintering. Due to the proximity of records, and the potential for suitable habitat to be present along the project route and within the vicinity of the project route, the DOW recommends that a habitat suitability survey be conducted to determine if suitable timber rattlesnake habitat is present along the project route. If suitable habitat is found to be present along the project route, the DOW recommends that a presence/absence survey be conducted. The DOW recommends that habitat suitability surveys and presence/absence surveys be conducted by one of the herpetologists from the provided "Approved Herpetologists" list. The results of any habitat suitability survey and any subsequent presence/absence survey can be submitted to Nathan Reardon, DOW Compliance Coordinator, at Nathan.reardon@dnr.state.oh.us.

The project is within the range of the eastern spadefoot toad (*Scaphiopus holbrookii*), a state endangered species. This species is found in areas of sandy soils that are associated with river valleys. Breeding habitats may include flooded agricultural fields or other water holding depressions. Due to the location, the type of habitat along the project route and within the vicinity of the project route, this project is not likely to impact this species.

The project is within the range of the eastern hellbender (*Cryptobranchus alleganiensis alleganiensis*), a state endangered species and a federal species of concern. Due to the location, and that there is no in-water work proposed in a perennial stream of sufficient size to provide suitable habitat, this project is not likely to impact this species.

The project is within the range of the black bear (Ursus americanus), a state endangered species. Due to the mobility of this species, this project is not likely to impact this species.

The project is within the range of the American burying beetle (*Nicrophorus americanus*) a state and federal endangered beetle. Due to the habitat requirements of this species, the project is not likely to impact this species.

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

**Forestry:** The Division of Forestry offers the following comments.

The proposed project will occur in part on Zaleski and Vinton Furnace State Forests (Vinton County), within an existing ROW. The contractor has stated that they will work with ODNR Division of Forestry state forest staff as the project progresses. ODNR Division of Forestry recommends limiting any tree removal to the existing right-of-way as much as practical and using all available means to limit erosion.

If access or tree removal beyond the existing easement is required, the party involved must request it through the state forest manager. Pursuant to OAC, the chief of the Division of Forestry can waive forest rules through a special use permit. The Division recommends that the applicant work with state forest staff prior to the submission of the application to ensure completeness. A particular focus for this project will be ensuring any access minimally impacts any long-term research projects. Special use permits are for temporary access only; there is no guarantee of any permanent legal access beyond the existing easement. The Division requires that an application be submitted at least 30 days prior to the planned event.

ODNR appreciates the opportunity to provide these comments. Please contact John Kessler at (614) 265-6621 if you have questions about these comments or need additional information.

John Kessler ODNR Office of Real Estate 2045 Morse Road, Building E-2 Columbus, Ohio 43229-6693 John.Kessler@dnr.state.oh.us From: Ann M. Stevens

**Sent:** Monday, April 13, 2015 2:33 PM

To: 'ohio@fws.gov'

**Cc:** 'Ronald M Howard - AEP (rmhoward@aep.com)'

**Subject:** Informal consultation for Ohio Siting Board application, Poston-Lick 138kV Transmission

line, Athens, Vinton & Jackson Counties, Ohio,

**Attachments:** Poston - Lick Location Map.pdf; Poston - Lick.zip

**Importance:** High

## To Whom it May Concern:

We are requesting an informal consultation in preparation for an application to the Ohio Power Siting Board for an electrical transmission line Letter of Notification. In addition, the locations of documented bat roosts, maternity colonies, and hibernacula within 7 miles of the project area.

Our client American Electric Power is proposing to re-build an above ground electric transmission line in, Athens, Vinton and Jackson Counties, Ohio. The project extends approximately 35 miles on existing 100 foot wide right of way. Two segments of the line will be rebuilt while the middle portion now fed by the recently completed Elk line will be abandoned. The portion of line to be rebuilt is approximately 22 miles and extends from the Poston Station to Structure 72 (15 miles) and from Structure 138 to the Lick Station (7 miles). The segment of line between US 50 and State Route 184 (Kisor Road), Structures 72 and 138, will be abandoned (approximately 13 miles). The transmission line right of way has been semi-routinely maintained since construction in 1957 and is primarily clear of trees and woody vegetation. Limited tree clearing will be necessary for construction access and to meet current safety standards. No inwater work is proposed.

We will also be requesting information from the Ohio DNR. I have included a location map and shapefile for use with GIS.

Based on our review of the USFWS website, Pink mucket (E), Fanshell (E), Snuffbox mussel (E), Sheepnose mussel (E), Running buffalo clover (E), American burying beetle (E), Indiana Bat (E) and Northern Long-Eared Bat (E) are identified as a federal species in Athens, Vinton & Jackson Counties, Ohio.

If this correspondence can be forwarded to the appropriate staff to assist us in facilitating an informal consultation it would be greatly appreciated. Please let me know if the Service needs any additional information on this project. Thank you for your time and attention.

#### Ann M. Stevens, RLA, PMP

Project Manager Environmental Services & Licensing

O (517) 768-7127 C (517) 879-7471 Deliveries to: 2700 West Argyle Street, Jackson, MI 49202 Mail to: PO Box 1124, Jackson, MI 49204 www.cai-engr.com

# COMMONWEALTH ASSOCIATES, INC.

EMPLOYEE-OWNED AND MANAGED FOR 25 YEARS

From: Zimmermann, Susan <susan_zimmermann@fws.gov>

**Sent:** Monday, June 08, 2015 3:15 PM

To: Ann M. Stevens

Cc:Jennifer Finfera; Reardon, Nathan; jennifer.norris@dnr.state.oh.us; nathan.jesterSubject:Ohio Power Siting Board Application for Poston-Lick 138 kV Transmission Line

**Attachments:** 03E15000-2015-TA-1016.pdf

Dear Ms. Stevens,

The USFWS response to the subject project is attached.

Regards,

Susan

--

Susan C. Zimmermann
U.S. Fish and Wildlife Service
Ecological Services Office
4625 Morse Road, Suite 104
Columbus, OH 43230
(614) 416-8993 ext. 10
(614) 416-8994 fax
http://www.fws.gov/midwest/Ohio/



#### UNITED STATES DEPARTMENT OF THE INTERIOR

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



June 8, 2015

Ms. Ann Stevens Commonwealth Associates, Inc. P.O. Box 1124 Jackson, MI 49204 TAILS: 03E15000-2015-TA-1016

# Dear Ms. Stevens:

This is in response to your April 13, 2015 letter and additional information regarding the proposed rebuild of a 138kV above ground transmission line. The project will be located in Athens, Jackson, and Vinton Counties. The project area currently consists of a landscape of forested habitat, rural residential development, agricultural fields, and limited commercial development. The existing transmission line route is 35 miles in length. A segment in the middle will be abandoned. At the north end, 15 miles will be rebuilt and at the south end, 7 miles will be rebuilt. The 22 miles of rebuilt line will require some tree removal in the existing right-of-way (ROW).

There are no Federal wildlife refuges, wilderness areas, or Critical Habitat within the vicinity of this project. However, the transmission line does cross through both Zaleski State Forest and Vinton Furnace State Experimental Forest. The U.S. Fish and Wildlife Service (Service) encourages you to coordinate this project with the Nathan Jester of the Ohio Department of Natural Resources (ODNR) Division of Forestry at nathan.jester@dnr.state.oh.us or 740-774-1596.

You have indicated that no in-water work would be required. However, no information was provided on whether wetlands are located along the transmission line route. The Service recommends that impacts to wetlands be avoided and buffers surrounding streams and wetlands be preserved. Streams and wetlands provide valuable habitat for fish and wildlife resources. Buffers of native vegetation surrounding these systems are also important in preserving their wildlife-habitat and water quality-enhancement properties. We recommend that any proposed projects use best construction techniques to minimize erosion. Prevention of non-native, invasive plant establishment is critical in maintaining quality habitats. All disturbed areas should be mulched and re-vegetated with native plants.

Your letter indicates that the 100-foot ROW will require some tree removal. If the ROW must be maintained frequently we encourage the establishment of prairie species. Native prairie species provide valuable foraging and breeding opportunities for bird species that maintained lawn areas lack. Prairie sites can also provide nectar and host plants for native pollinators such as the monarch butterfly. Allowing the ROW to grow between maintenance activities will decrease the impact between the forest interior and the ROW. If the ROW must be moved on an annual basis

we recommend that it be completed only once per year before March 1 or any time after July 15 to avoid seasons when ground-nesting birds are breeding.

# MIGRATORY BIRD COMMENTS:

The project lies within the range of the **bald eagle** (*Haliaeetus leucocephalus*), a species protected under the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act. Due to the location of eagle nests in the area no significant impacts are expected for this species. Relative to this species, this precludes the need for further action on this project as required by the Bald and Golden Eagle Protection Act and the Migratory Bird Treaty Act.

# LISTED SPECIES COMMENTS:

All projects in the State of Ohio lie within the range of the federally endangered Indiana bat (Myotis sodalis) and the federally threatened **northern long-eared bat** (Myotis septentrionalis). In Ohio, presence of the Indiana bat and northern long-eared bat is assumed wherever suitable habitat occurs unless a presence/absence survey has been performed to document absence. Suitable summer habitat for Indiana bats and northern long-eared bats consists of a wide variety of forested/wooded habitats where they roost, forage, and travel and may also include some adjacent and interspersed non-forested habitats such as emergent wetlands and adjacent edges of agricultural fields, old fields and pastures. This includes forests and woodlots containing potential roosts (i.e., live trees and/or snags ≥3 inches dbh that have any exfoliating bark, cracks, crevices, hollows and/or cavities), as well as linear features such as fencerows, riparian forests, and other wooded corridors. These wooded areas may be dense or loose aggregates of trees with variable amounts of canopy closure. Individual trees may be considered suitable habitat when they exhibit the characteristics of a potential roost tree and are located within 1,000 feet (305 meters) of other forested/wooded habitat. Northern long-eared bats have also been observed roosting in human-made structures, such as buildings, barns, bridges, and bat houses; therefore, these structures should also be considered potential summer habitat. In the winter, Indiana bats and northern long-eared bats hibernate in caves and abandoned mines.

You have indicated that tree removal will be required to provide construction access and meet current safety standards. The existing ROW has been previously cleared of trees. Some young trees have become established within the ROW and will need to be removed. In addition, in the email dated April 21, 2015 you indicated that some trees that have grown into the edges of the ROW and some hazard trees outside of the ROW would be removed.

The proposed project is in the vicinity of one or more confirmed records of both Indiana bats and northern long-eared bats. Therefore, we recommend that trees ≥3 inches dbh be saved wherever possible. Because the project will result in a small amount of forest clearing relative to the available habitat in the immediately surrounding area, habitat removal is unlikely to result in significant impacts to these species. Since Indiana bat and northern long-eared bat presence in the vicinity of the project has been confirmed, clearing of trees ≥3 inches dbh during the summer roosting season may result in direct take of individuals. If any caves or abandoned mines may be disturbed, further coordination with this office is requested to determine if fall or spring surveys are warranted. If no caves or abandoned mines are present and tree removal is unavoidable, we recommend that removal of any trees ≥3 inches dbh only occur between October 1 and March 31. Following this seasonal tree clearing recommendation should ensure

that any effects to Indiana bats and northern long-eared bats are insignificant or discountable. Please note that, because Indiana bat and northern long-eared bat presence has already been confirmed in the project vicinity, any additional summer surveys would not constitute presence/absence surveys for these species.

This project may require a federal permit if wetlands will be impacted. In addition, it will require permitting from the Ohio Power Siting Board. If there is a federal nexus for the project (federal funding provided, federal permits required to construct, etc.) then no tree clearing on any portion of the parcel should occur until consultation under section 7 of the ESA, between the Service and the federal action agency, is completed. We recommend that the federal action agency submit to this office a determination of effects to the Indiana bat and northern long-eared bat for our review and concurrence.

The proposed project lies within the range of **running buffalo clover** (*Trifolium stoloniferum*), a federally listed endangered species. This species can be found in partially shaded woodlots, mowed areas (lawns, parks, cemeteries), and along streams and trails. Running buffalo clover requires periodic disturbance and a somewhat open habitat to successfully flourish, but cannot tolerate full-sun, full-shade, or severe disturbance. If suitable habitat is present, we recommend that surveys for this species be conducted by a trained botanist in May or June when the plant is in flower. More information on the consultation requirements for this species can be obtained at: <a href="http://www.fws.gov/midwest/ohio/endangered_rb_clover_workshop.html">http://www.fws.gov/midwest/ohio/endangered_rb_clover_workshop.html</a>

The project area lies within the range of the **American burying beetle** (*Nicrophorus americanus*) a federally listed endangered species. This insect is a generalist as far as habitat preference is concerned, meaning that it can be found in grasslands, open woodlands and brushlands. Due to the project location and minimal ground disturbance, significant impacts to this species are not expected.

The proposed project lies within the range of the **fanshell** (*Cyprogenia stegaria*), **sheepnose** (*Plethobasus cyphyus*), **pink mucket pearly mussel** (*Lampsilis abrupta*), and **snuffbox** (*Epioblasma triquetra*) mussel species. You have indicated that no in-water work is required. Therefore, due to the lack of impacts to suitable habitat, no impacts to these mussel species are expected.

## PROPOSED AND CANDIDATE SPECIES COMMENTS:

The project lies within the range of the **timber rattlesnake** (*Crotalus horridus horridus*), a federal species of concern and Ohio endangered species. Your proactive efforts to conserve this species now may help avoid the need to list the species under the Endangered Species Act in the future. In Ohio, the timber rattlesnake is restricted to the un-glaciated Allegheny Plateau. Winters are spent in dens usually associated with high, dry ridges. In the fall, timber rattlesnakes return to the same den.

It may be helpful to inquire about timber rattlesnake sightings with local resource agency personnel or reliable local residents. Local herpetologists may have knowledge of historical populations as well as precise knowledge of the habits, and especially the specific, local types of habitats that may contain timber rattlesnakes.

In areas where timber rattlesnakes or their dens are known or likely to exist, clearing, construction, and maintenance activities (mowing, cutting, burning, etc.) should be avoided at least 100 feet from ridges and areas of exposed rock and should be conducted from November 1 to March 1, when timber rattlesnakes are hibernating. In addition, the Service supports the recommendation by ODNR that a habitat suitability survey be conducted for this species.

The proposed project lies within the range of the **eastern hellbender** (*Cryptobranchus a. alleganiensis*), a Federal amphibian species of concern and an Ohio endangered species. The eastern hellbender is a salamander that inhabits perennial streams with large, flat rocks. You have indicated that no in-water work is required. Therefore, due to the lack of impacts to suitable habitat, no impacts to this species are expected.

These comments have been prepared under the authority of the Fish and Wildlife Coordination Act (48 Stat. 401, as amended; 16 U.S.C. 661 et seq.), the Endangered Species Act of 1973, as amended, and are consistent with the intent of the National Environmental Policy Act of 1969 and the U.S. Fish and Wildlife Service's Mitigation Policy. Please note that consultation under section 7 of the ESA may be warranted for this project if suitable habitat for federally listed species may be impacted by this project. This letter provides technical assistance only and does not serve as a completed section 7 consultation document.

If you have any questions regarding this response or if you need additional information, please contact Jennifer Finfera at Extension 13.

Sincerely,

Dan Everson Field Supervisor

cc: Nathan Jester, ODNR-DOF Jennifer Norris, ODNR-DOW Nathan Reardon, ODNR-DOW This foregoing document was electronically filed with the Public Utilities

**Commission of Ohio Docketing Information System on** 

6/13/2016 5:29:42 PM

in

Case No(s). 16-0020-EL-BLN

Summary: Letter of Notification Part 13 of 13 electronically filed by Mr. Hector Garcia on behalf of AEP Ohio Transmission Company