WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Sandpiper	City/County:	Wadena	Sampling Date:	09/12/2014	
Applicant/Owner: Enbridge		State: MI	N Sampling P	oint: WA020a1W	
Investigator(s): DPT		Section, To	ownship, Range:		
Landform (hillslope, terrace, etc.): Depression	Lo		oncave, convex, none):	Concave/Concave	
	ong.:	Datum			
Soil Map Unit Name			NWI Classification:		
Are climatic/hydrologic conditions of the site typical for	or this time of the year	r?	(If no, explain in remark	(S)	
Are vegetation , soil , or hydrology		ly disturbed?	Are "normal	,	
Are vegetation , soil , or hydrology		roblematic?		present? Yes	
(If needed, explain any answers in remarks)					
,					
SUMMARY OF FINDINGS					
	\Box				
Hydrophytic vegetation present? Y	Is the sample	d area with	in a wetland?	Υ	
Hydric soil present?	•				
Indicators of wetland hydrology present?	If yes, optional	l wetland site	e ID: WA020a1	W	
indicators of worlding hydrology procent.	ii yoo, optional	Wolland on	VV/102041		
Remarks: (Explain alternative procedures here or in a	separate report.)				
()					
DEM T O I					
PEM - Type 2, sedge meadow					
HYDROLOGY					
			Secondary Indicators (r	minimum of two	
Primary Indicators (minimum of one is required; chec	k all that apply)		required)		
Surface Water (A1) Water-Stained Leaves (B9)			Surface Soil Cracks (B6)		
	Aquatic Fauna (B13)		Drainage Patterns (B10)		
	Marl Deposits (B15)		Moss Trim Lines (B16)		
	Hydrogen Sulfide Odor (C1)		Dry-Season Water Table (C2)		
<u> </u>	Oxidized Rhizospheres on Living		Crayfish Burrows (C8)		
	Roots (C3)		Saturation Visible on Aerial Imagery		
	Presence of Reduced Iron (C4)		(C9)		
	Recent Iron Reduction in Tilled		Stunted or Stressed Plants (D1)		
	Soils (C6)		X Geomorphic Position (D2)		
	Thin Muck Surface (C7)		Shallow Aquitard (D3)		
<u> </u>			X FAC-Neutral Test (D5)		
Surface (B8)	(Explain in Romano)		Microtopographic Re	•	
Ounded (Bo)			Willordtopograpilio itt	mor (B4)	
Field Observations:					
Surface water present? Yes No	X Depth (inches)):	Indicators of		
Water table present? Yes No	X Depth (inches)		wetland		
Saturation present? Yes X No	Depth (inches)		hydrology		
(includes capillary fringe)			present?	Υ	
(includes supmary image)			procent	<u> </u>	
Describe recorded data (stream gauge, monitoring w	ell, aerial photos, prev	vious inspec	tions), if available:		
	, р, р		,,		
Remarks:					

VEGETATION - Use scientific names of plants Sampling Point: WA020a1W 50/20 Thresholds Absolute **Dominant** Indicator 20% 50% Tree Stratum Plot Size (30 ft % Cover **Species** Status Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 21 53 Woody Vine Stratum 0 5 **Dominance Test Worksheet** 6 Number of Dominant Species that are OBL, FACW, or FAC: (A) **Total Number of Dominant** Species Across all Strata: 10 (B) 0 = Total Cover Percent of Dominant Species that are OBL, 100.00%_(A/B) Sapling/Shrub Absolute **Dominant** Indicator FACW, or FAC: Plot Size (15 ft Stratum % Cover **Species** Status **Prevalence Index Worksheet** Total % Cover of: 3 OBL species 105 105 x 1 = _x 2 = **FACW** species 0 _ x 3 = 5 FAC species 0 0 FACU species 0 x 4 = 0 UPL species 0 x 5 = 0 105 (B) Column totals 105 (A) 8 9 Prevalence Index = B/A = 1.00 10 = Total Cover 0 **Hydrophytic Vegetation Indicators:** Dominant Indicator Rapid test for hydrophytic vegetation Absolute 5 ft Herb Stratum Plot Size (X Dominance test is >50% % Cover **Species** Status Carex lacustris 100 OBL X Prevalence index is ≤3.0* Ν OBL Scirpus cyperinus 5 Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* 5 6 (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic **Definitions of Vegetation Strata:** 10 Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 13 Sapling/shrub - Woody plants less than 3 in. DBH and 15 greater than 3.28 ft (1 m) tall. 105 = Total Cover Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine Indicator Absolute **Dominant** Plot Size (Status Stratum % Cover Species Woody vines - All woody vines greater than 3.28 ft in height. 3 Hydrophytic vegetation 0 = Total Cover present? Remarks: (Include photo numbers here or on a separate sheet)

SOIL WA020a1W **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) Type* 0-10 10YR 2/1 100 Muck 10-14 10YR 3/2 95 10YR 4/6 5 С Sand Μ 14-20 10YR 4/2 90 10YR 4/6 10 С М Sand *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface X Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Below Dark Suface (A11) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Red Parent Material (F21) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Hydric soil present? Y Depth (inches): Remarks: