## WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP		City/County: Wadena		Sampling Date: 2016-07-25		
Applicant/Owner: Enbridge		State: Minnesota		Sampling Point: w-138n33w11-aa1		
Investigator(s): DPT, MGH		Section, Townshi	p, Range: S11, T138N, R3	33W		
Landform (hillslope, terrace, etc.): [	Depression		Local Relief (concave, co	onvex, none): CL	Slope (%): 0-2%	
Subregion (LRR or MLRA):		 Latitude: 46	5.7863957537 Long	gitude: -94.81075569	Datum: NAD83	
Soil Map Unit Name: 543		_		NWI Cla	ssification: PSS1C	
Are climatic/hydrologic conditions	on the site typic	cal for this time of year	? (if no, explain in Remarl	ks):	No	
. , .		•		•		
Are Vegetation No_, Soil No_,	or Hydrology <u>IV</u>	Significantly disturt	ded? Are Normal Circum	nstances present? 1es		
Are Vegetation No_, Soil No_, or	Hydrology No	_ naturally problemation	? (If needed, explain an	y answers in Remarks)		
SUMMARY OF FINDINGS - Attac	ch site map sho	wing sampling point lo	cations, transects, impor	rtant features, etc.		
Hydrophytic Vegetation Present?		Yes	Is the Sampled Area			
Hydric Soil Present?		Yes	within a Wetland?		Yes	
Wetland Hydrology Present?		Yes	If yes, optional Wetland	Site ID:	w-138n33w11-aa	
Remarks: (Explain alternative proc	edures here or	in a separate report.)	<u> </u>		_	
Existing forest road, no digging, po	otential buried (	utilities. Precipitation a	bove normal based on W	ETS analysis.		
		·		•		
HYDROLOGY						
Wetland Hydrology Indicators:				Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of on	e is required; c	heck all that apply)		Surface So	il Cracks (B6)	
Surface Water (A1) Water-Stained Leaves		es (B9)	Drainage Patterns (B10)			
High Water Table (A2)	_	Aquatic Fauna (B13)		Moss Trim	Lines (B16)	
Saturation (A3)	_	Marl Deposits (B15)		Dry-Season Water Table (C2)		
Water Marks (B1)	-	Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)		
Sediment Deposits (B2)	Oxidized Rhizospheres		es on Living Roots (C3)	Saturation \	Saturation Visible on Aerial Imagery (C9)	
Drift Deposits (B3)	-	Presence of Reduced	I Iron (C4)	Stunted/Str	essed Plants (D1)	
Algal Mat or Crust (B4)	-	Recent Iron Reductio	on in Tilled Soils (C6)	yes Geomorphic Position (D2)		
Iron Deposits (B5)	-	Thin Muck Surface (C7)		Shallow Aquitard (D3)		
Inundation Visible on Aerial Image	tion Visible on Aerial Imagery (B7) Other (Explain in Rem		marks)	raphic Relief (D4)		
Sparsely Vegetated Concave Surfa	ce (B8)			yes FAC-Neutra	Test (D5)	
Field Observations:						
Surface Water Present?	<u>No</u>	Depth (inches)				
Water Table Present?		Depth (inches)				
Saturation Present?	<u>No</u>	Depth (inches)		Wetland Hydrology Pr	resent? Yes	
(includes capillary fringe)						
Describe Recorded Data (stream ga	auge, monitorin	g well, aerial photos, p	revious inspections), if av	vailable:		
Remarks:						
No digging allowed, could not con	firm/deny wate	r table.				
1						

		Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum	(Plot Size: 30	% Cover	Species?	Status	Number of Dominant Species	
1			_ ·		That Are OBL, FACW, or FAC: 4	(A)
2.					Total Number of Dominant	
					Species Across All Strata: 4	(B)
4.					Percent of Dominant Species	
5.					That Are OBL, FACW, or FAC: 100	0(A/B)
6.					Prevalence Index worksheet:	
7					Total % Cover of:	Multiply by:
		0	_ = Total Cover		OBL species 60.00	0 x 1 60
Sapling/Shrub Stratum (Pl	ot Size: <u>15</u> )				FACW species 30.00	) x 2 <u>60</u>
1. Salix petiolaris		5.00	Yes	OBL	FACU species 0.00	x3 <u>0</u>
2					UPL species <u>0.00</u>	x 4 <u>0</u>
3					Column Totals 105	(A) <u>165</u> (B)
4					Prevalence Index = B	3/A = <u>1.5714285</u>
5					Hydrophytic Vegetation Indicator	rs:
6					1 - Rapid Test for Hydrop	hytic Vegetation
7					yes 2 - Dominance Test is > 5	50%
		5	_ = Total Cover		yes 3 - Prevalence Index is ≤	3.0 <sup>1</sup>
Herb Stratum (Plot Size: 5	)				4 - Morphological Adapta	
1. Scirpus atrovirens		35.00	Yes	OBL	supporting data in Remarks or o	on a separate sheet)
2. Phalaris arundinacea		30.00	Yes	FACW	Problematic Hydrophytic Vegetation	<sup>1</sup> (Explain)
3. Carex lacustris		20.00	Yes	OBL	Indicators of hydric soil and wotland hydr	alony must be present unless
4. Solidago gigantea		15.00	No	FAC	Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
5					Definitions of Vegetation Strata:	
6						
					Tree - Woody plants 3 in. (.76 cm) or	r more in diameter at breast
8					height (DBH), regardless of height.	
9					Sapling/Shrub - Woody plants less the	han 3 in. DBH and greater than
10.					or equal to 3.28 ft (1 m) tall.	
			_	_	Herb - All herbaeceous (non-woody)	) plants, regardless of size, and
				_	woody plants less than 3.28 ft tall.	
		100	= Total Cover		Woody vines - All woody vines great	ter than 3.28 ft in height.
Woody Vine Stratum (Plot	: Size: 30		_		, ,	<u> </u>
1.	,					
2			_		Hydrophytic	
2			_		Vegetation Yes	
3					Present?	
4		0	-Total Cavar	_	┥	
5 1 / 1 1 1 1			=Total Cover			
Remarks: (include photo	numbers here or on a separate sheet.	.)				

Sampling Point: w-138n33...

Sampling Point: w-138n33... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Loc<sup>2</sup> (inches) Color (moist) Color (moist) % Type<sup>1</sup> Texture Remarks <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil<sup>3</sup>: Hydric Soil Indicators: Polyvalue Below Surface (S8) (LRR R, MLRA Histosol (A1) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Coast Prairie Redox (A16)(LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Dark Surface (S7) (LRR K, M) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Maganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (explain in remarks) Dark Surface (S7) (LRR R, MLRA 149B) Restrictive Layer (if observed): Hydric Soil Present? Yes Depth (inches): Remarks: No digging allowed, existing forest road, possible buried utilities. Soils assumed hydric based on veg/hydro.

Site Photograph 1 Sampling Point: w-138n33w11-aa1



Latitude: 46.7864328436989	Cowardin Classification: PEM
Longitude: -94.810697352602	Circular 39: 2
Direction: north	Eggers & Reed: Fresh (Wet) Meadow
Remarks:	

Site Photograph 2 Sampling Point: w-138n33w11-aa1



Latitude: 46.786431795961	Cowardin Classification: PEM
Longitude: -94.8107038066674	Circular 39: 2
Direction: west	Eggers & Reed: Fresh (Wet) Meadow
Remarks:	