WETLAI	ND DETERMINATIO	N DATA FORM - North Central a	nd Northeast Region			
Project/Site: SPP				Sampling Date: 2016-07-25		
Applicant/Owner: Enbridge		State: Minnesota	Samplin	g Point: w-138n33w1-ab1		
Investigator(s): DPT, MGH	Section	n, Township, Range: <u>S1, T138N, R33</u>	W			
Landform (hillslope, terrace, etc.): Depres	sion	Local Relief (concave, co	nvex, none): <u>CL</u>	Slope (%): <u>0-2%</u>		
Subregion (LRR or MLRA):	La	atitude: 46.7930825846 Long	gitude: <u>-94.78908352</u>	Datum: NAD83		
Soil Map Unit Name: 564			NWI Clas	sification: N/A		
Are climatic/hydrologic conditions on the	site typical for this ti	me of year? (if no, explain in Remark	s):	No		
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hyd	rology <u>No</u> significa	ntly disturbed? Are "Normal Circum	stances" present? Yes			
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	logy <u>No</u> naturally p	roblematic? (If needed, explain any	y answers in Remarks)			
SUMMARY OF FINDINGS - Attach site	map showing sampli	ng point locations, transects, impor	tant 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-138n33w1-ab		
Remarks: (Explain alternative procedures	s here or in a separate	e report.)				
No digging, existing forest road, potentia	al buried utilities. Pred	ipitation above normal based on W	ETS analysis.			
HYDROLOGY						
Wetland Hydrology Indicators:			Secondary Indicat	ors (minimum of two required)		
Primary Indicators (minimum of one is rea	quired; check all that	apply)	Surface Soil	Cracks (B6)		
yes Surface Water (A1)	Water-S	tained Leaves (B9)	Drainage Pat	tterns (B10)		
yes High Water Table (A2)	Aquatic	Fauna (B13)	Moss Trim L	ines (B16)		
yes Saturation (A3)			Dry-Season Water Table (C2)			
Water Marks (B1)	Water Marks (B1) Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)			
Sediment Deposits (B2)	Sediment Deposits (B2) Oxidized Rhizosphere		Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)	Drift Deposits (B3) Presence of Reduced Ir		Stunted/Stressed Plants (D1)			
Algal Mat or Crust (B4)	Algal Mat or Crust (B4)Recent Iron Reduction in		<u>Yes</u> Geomorphic Position (D2)			
Iron Deposits (B5)	Iron Deposits (B5) Thin Muck Surface (C7)		Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7)	Other (E	xplain in Remarks)	Microtopogra	aphic Relief (D4)		
Sparsely Vegetated Concave Surface (B8)			<u>Y</u> ES_FAC-Neutral	Test (D5)		
Field Observations:						
Surface Water Present?		th (inches) <u>6</u>				
Water Table Present?	-	th (inches) 0				
Saturation Present?	Yes Dep	th (inches) <u>0</u>	Wetland Hydrology Pre	esent? <u>Yes</u>		
(includes capillary fringe)	, ,					
Describe Recorded Data (stream gauge, n	nonitoring well, aeria	photos, previous inspections), if available	ailable:			
Remarks:						

## **VEGETATION** - Use scientific names of plants.

Sampling Point: w-138n33...

	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
3				Species Across All Strata: 4 (B)
4.				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
	0	= Total Cover		OBL species 70.00 x 1 70
Sapling/Shrub Stratum (Plot Size: 15 )				FACW species 25.00 x 2 50
1. Salix petiolaris	10.00	Yes	OBL	FACU species 0.00 x 3 0
2				UPL species 0.00 x 4 0
3.				Column Totals 110 (A) 165 (B)
4.				Prevalence Index = $B/A = 1.5$
				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7	10			yes2 - Dominance Test is > 50%yes3 - Prevalence Index is $\leq 3.0^1$
	10	= Total Cover		
Herb Stratum (Plot Size: 5)	22.22		0.01	4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
1. Sparganium americanum	30.00	Yes	OBL	4
2. Phalaris arundinacea	25.00	Yes	FACW	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
3. Carex lacustris	20.00	Yes	OBL	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless
4. Solidago gigantea	15.00	No	FAC	disturbed or problematic.
5. Scirpus cyperinus	10.00	No	OBL	Definitions of Vegetation Strata:
6				4
7				Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8				
9				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than
10				or equal to 3.28 ft (1 m) tall.
11			_	Herb - All herbaeceous (non-woody) plants, regardless of size, and
12				woody plants less than 3.28 ft tall.
	100	= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot Size: 30 )				
1.				
				- Hydrophytic
2				Vegetation Yes
3				Present?
4				4
	0	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.	.)			

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## SOIL

Sampling Poi	nt: w-138n33
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Depth	Matrix	Redox	Features				
(inches) Color (	moist) %	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
<sup>1</sup> Type: C=Concentration, D=Dep	letion, RM=Reduced M	atrix, MS=Masked Sand Gr	  rains.				<sup>2</sup> Location: PL=Pore Lining, M=Matr
Hydric Soil Indicators:		Debarelye Delevy	Surface /SI			Indicators for I	Problematic Hydric Soil <sup>3</sup> :
Histosol (A1)		Polyvalue Below 149B)	Surface (Se	5) <b>(LKK K,</b>	IVILKA	2 cm Mu	ck (A10) ( <b>LRR K, L, MLRA 149B</b> )
Histic Epipedon (A2)		Thin Dark Surface	e (S9) <b>(LRR</b>	R, MLRA	149B)	Coast Pra	irie Redox (A16)( <b>LRR K, L, R</b> )
Black Histic (A3)		Loamy Mucky Mi	neral (F1)	(LRR K, L)		5 cm Mu	cky Peat or Peat (S3) ( <b>LRR K, L, R</b> )
Hydrogen Sulfide (A4)		Loamy Gleyed M	atrix (F2)			Dark Surf	ace (S7) ( <b>LRR K, M)</b>
Stratified Layers (A5)		Depleted Matrix	(F3)			Polyvalue	Below Surface (S8) (LRR K, L)
Depleted Below Dark Surf	ace (A11)	Redox Dark Surfa	ice (F6)			Thin Dark	Surface (S9) (LRR K, L)
Thick Dark Surface (A12)		Depleted Dark Su	ırface (F7)			Iron-Mag	anese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1)	)	Redox Depressio	ns (F8)			Piedmont	Floodplain Soils (F19) <b>(MLRA 149B)</b>
Sandy Gleyed Matrix (S4)						Mesic Spo	odic (TA6) <b>(MLRA 144A, 145, 149B)</b>
Sandy Redox (S5)						Red Pare	nt Material (F21)
Stripped Matrix (S6)						Very Shal	llow Dark Surface (TF12)
Dark Surface (S7) (LRR R, I	MLRA 149B)					🔽 Other (ex	xplain in remarks)
Restrictive Layer (if observed):	Ε						
Туре:					н	lydric Soil Present?	Yes
Depth (inches):							
Remarks:							
No digging, existing forest road,	, soils assumed hydric b	ased on veg/hydro.					
	,	- ,					

## Site Photograph 1



Latitude: 46.7930906312976

Longitude: -94.7890739702571

Cowardin Classification: PEM

Eggers & Reed: Shallow Marsh

Circular 39: 3

Direction: south

Remarks:

Site Photograph 2



Latitude: 46.7930908408452

Longitude: -94.7890770715613

Cowardin Classification: PEM

Remarks:

Direction: east

Eggers & Reed: Shallow Marsh

Circular 39: 3