WETLAI	ND DETERMIN	ATION DATA F	ORM - North Cer	ntral and No	rtheast Region			
Project/Site: SPP	City/Cou	ity/County: Carlton				Sampling Date: 2016-07-18		
Applicant/Owner: Enbridge		State: Minnesota			Sampling Point: w-47n18w2-aa1			
Investigator(s): ZCW	S	ection, Townshi	p, Range: <u>S 2, T 47</u> 1	N, R 18W				
Landform (hillslope, terrace, etc.): Depres	sion	Local Relief (concave, convex, none): CC Slope (%): 0-2%					(%): 0-2%	
Subregion (LRR or MLRA):		Latitude: 46.5863229521 Longitude			: -92.58267408 Datum: NAD83			
Soil Map Unit Name: 268B				-	NWI Clas	sification: N/A		
Are climatic/hydrologic conditions on the	site typical for t	his time of year	? (if no, explain in R	Remarks):		Yes		
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hyd					s" present? Yes			
Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro	logy <u>No</u> natu	rally problemation	? (If needed, expl	ain any answe	ers in Remarks)			
SUMMARY OF FINDINGS - Attach site	map showing sa	ampling point lo	cations, transects,	important fe	atures, etc.			
Hydrophytic Vegetation Present?	Yes		Is the Sampled Ar	ea				
Hydric Soil Present?	Yes		within a Wetland	?		Yes		
Wetland Hydrology Present?	Yes		If yes, optional We	etland Site ID:	: w-47n18w2-aa			
HYDROLOGY								
Wetland Hydrology Indicators:				<u>,</u>	Secondary Indicat	ors (minimum	of two required)	
Primary Indicators (minimum of one is re-	quired; check al	l that apply)			Surface Soil	Cracks (B6)		
yes Surface Water (A1)	w	Water-Stained Leaves (B9)			Drainage Patterns (B10)			
High Water Table (A2)	A	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 on Living Roots (C3)			Saturation Visible on Aerial Imagery (C9)			
Drift Deposits (B3)		Presence of Reduced Iron (C4)			Stunted/Stressed Plants (D1)			
Algal Mat or Crust (B4)		Recent Iron Reduction in Tilled Soils (C6)			Yes Geomorphic Position (D2)			
Iron Deposits (B5)	TI	Thin Muck Surface (C7)			<u>no</u> Shallow Aquitard (D3)			
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)		narks)		Microtopographic Relief (D4)				
Sparsely Vegetated Concave Surface (B8)					<u>Yes</u> FAC-Neutral	Test (D5)		
Field Observations:	Vee		2					
Surface Water Present?	Yes	Depth (inches)						
Water Table Present?	Yes	Depth (inches)					Voc	
Saturation Present?	Yes	Depth (inches)	<u> </u>	wetia	nd Hydrology Pro	esent?	Yes	
(includes capillary fringe) Describe Recorded Data (stream gauge, n	nonitoring well,	aerial photos, p	revious inspections), if available:				
Remarks:								

VEGETATION - Use scientific names of plants.

Sampling Point: w-47n18w...

	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: 1 (A)
2.				Total Number of Dominant
3			_	Species Across All Strata: 1 (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 20.00 x 1 20
Sapling/Shrub Stratum (Plot Size: 15)		_		FACW species 45.00 x 2 90
1				FACU species 10.00 x 3 40
2				UPL species 0.00 x 4 0
3.			_	Column Totals 80 (A) 165 (B)
4.			_	Prevalence Index = $B/A = 2.0625$
			_	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				yes 2 - Dominance Test is > 50%
/	0	- Tatal Causer		yes 3 - Prevalence Index is $\leq 3.0^{1}$
Harb Strature (Dist Size 5	<u>.</u>	_ = Total Cover		
Herb Stratum (Plot Size: 5) 1. Poa palustris	30.00	Yes	FACW	4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
	15.00	No	OBL	– Problematic Hydrophytic Vegetation ¹ (Explain)
2. Scirpus atrovirens		-		Problematic Hydrophytic Vegetation (Explain)
3. Calamagrostis canadensis	15.00	<u>No</u>	FACW	¹ Indicators of hydric soil and wetland hydrology must be present, unless
4. Phleum pratense	10.00	<u>No</u>	FACU	disturbed or problematic.
5. Carex comosa	5.00	No	OBL	Definitions of Vegetation Strata:
6. Equisetum arvense	5.00	No	FAC	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 or equal to 3.28 ft (1 m) tall.
10				
11				Herb - All herbaeceous (non-woody) plants, regardless of size, and
12				woody plants less than 3.28 ft tall.
		= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot Size: 30)				
1.				
2.				– Hydrophytic
				Vegetation Present2 Yes
3				_ Present?
4	0			-
		=Total Cover		
Remarks: (include photo numbers here or on a separate s	sheet.)			

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Northcentral and Northeast Region – Version 2.0

SOIL

Sampling Poi	nt: w-47n18w
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Depth	Matrix		Redox	eatures				
(inches)	Color (moist)	% 	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
				·				
¹ Type: C=Concer		Reduced Matrix	, MS=Masked Sand Gr	 ains			Indicators for Pr	² Location: PL=Pore Lining, M=Matri oblematic Hydric Soil ³ :
Histosol (A Histic Epip Black Histi Hydrogen Stratified I Depleted I Thick Dark Sandy Mu Sandy Glee Sandy Red Stripped N	A1) pedon (A2) ic (A3) Sulfide (A4) Layers (A5) Below Dark Surface (A11) & Surface (A12) cky Mineral (S1) yed Matrix (S4) lox (S5)		Polyvalue Below : 149B) Thin Dark Surface Loamy Mucky Mi Loamy Gleyed Ma Depleted Matrix Redox Dark Surfa Depleted Dark Surfa Redox Depression	(S9) (LRR neral (F1) atrix (F2) (F3) ce (F6) rface (F7)	R, MLRA	149B)	2 cm Muck Coast Prairi 5 cm Muck Dark Surfac Polyvalue B Thin Dark Su Iron-Magar Piedmont Fl Mesic Spodi	(A10) (LRR K, L, MLRA 149B) ie Redox (A16)(LRR K, L, R) y Peat or Peat (S3) (LRR K, L, R) ee (S7) (LRR K, M) Below Surface (S8) (LRR K, L) uurface (S9) (LRR K, L) nese Masses (F12) (LRR K, L, R) loodplain Soils (F19) (MLRA 149B) ic (TA6) (MLRA 144A, 145, 149B) Material (F21) w Dark Surface (TF12)
Remarks:	(if observed): (inches): ken in road ditch. No digging	g. Hydric soils a:	ssumed based on vege	tation and	l hydrolog		ydric Soil Present?)	Yes

Site Photograph 1

Sampling Point: w-47n18w2-aa1



Latitude: 46.5863244608478

Longitude: -92.5826246292261

Cowardin Classification: PEM

Circular 39: 1

Remarks:

Direction: North

Eggers & Reed: Seasonally Flooded Basin

Site Photograph 2

Sampling Point: w-47n18w2-aa1



Latitude: 46.5863247542145

Longitude: -92.5826245454071

Direction: East

Remarks:

Circular 39: 1

Eggers & Reed: Seasonally Flooded Basin