

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site:	L3R	Date:	09/30/14
Applicant:	Enbridge	County:	Red Lake
Investigators:	NTT/BEH	State:	MN
Soil Unit:	138A	Subregion (MLRA or LRR):	MLRA 56
Landform:	Dip	NWI Classification:	PSS1C
Slope (%):	3 - 7%	Local Relief:	VC
	Latitude: 47.923229	Longitude: -96.059197	Datum:
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?	Are normal circumstances present?		
Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
Section:			
Township:			
Range:			Dir:

**SUMMARY OF FINDINGS**

Hydrophytic Vegetation Present? Yes      Hydric Soils Present? Yes

Wetland Hydrology Present? Yes      **Is This Sampling Point Within A Wetland? Yes**

Remarks: The wetland is located in a hardwood swamp dominated by quaking aspen and balsam poplar. The groundcover is dominated by sedges and red-osier dogwood.

**HYDROLOGY**

**Wetland Hydrology Indicators** (Check all that apply; Minimum of one primary or two secondary required):

<u>Primary:</u>		<u>Secondary:</u>
<input type="checkbox"/> A1 - Surface Water	<input type="checkbox"/> B11 - Salt Crust	<input type="checkbox"/> B6 - Surface Soil Cracks
<input type="checkbox"/> A2 - High Water Table	<input type="checkbox"/> B13 - Aquatic Fauna	<input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface
<input type="checkbox"/> A3 - Saturation	<input type="checkbox"/> C1 - Hydrogen Sulfide Odor	<input type="checkbox"/> B10 - Drainage Patterns
<input type="checkbox"/> B1 - Water Marks	<input type="checkbox"/> C2 - Dry Season Water Table	<input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (tilled)
<input type="checkbox"/> B2 - Sediment Deposits	<input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (not till)	<input type="checkbox"/> C8 - Crayfish Burrows
<input type="checkbox"/> B3 - Drift Deposits	<input type="checkbox"/> C4 - Presence of Reduced Iron	<input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery
<input checked="" type="checkbox"/> B4 - Algal Mat or Crust	<input type="checkbox"/> C7 - Thin Muck Surface	<input checked="" type="checkbox"/> D2 - Geomorphic Position
<input type="checkbox"/> B5 - Iron Deposits	<input type="checkbox"/> Other (Explain)	<input checked="" type="checkbox"/> D5 - FAC-Neutral Test
<input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery		<input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F)
<input type="checkbox"/> B9 - Water-Stained Leaves		

**Field Observations:**

Surface Water Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	<b>Wetland Hydrology Present?</b> <u>Y</u>
Water Table Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	
Saturation Present? Yes <input type="checkbox"/>	Depth: _____ (in.)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: Areas within the wetland have algal mats present throughout the lower depressional hollows.

**SOILS**

Profile Description (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

Depth (In.)	Matrix			Mottles				Texture	Remarks
	Color (Moist)	%		Color (Moist)	%	Type	Location		
0-8	Hue_10YR	2/1	100					FS	
8-12	Hue_10YR	4/1	95	Hue_7.5YR	6/8	5	C	M	SCL
12-24	Hue_10YR	3/1	90	Hue_2.5YR	4/6	10	C	M	CL

**NRCS Hydric Soil Field Indicators** (check here if indicators are not present):

<input type="checkbox"/> A1 - Histosol	<input type="checkbox"/> S5 - Sandy Redox	<b>Indicators for Problematic Soils<sup>1</sup></b>
<input type="checkbox"/> A2 - Histic Epipedon	<input type="checkbox"/> S6 - Stripped Matrix	<input type="checkbox"/> A9 - 1 cm Muck (LRR I, J)
<input type="checkbox"/> A3 - Black Histic	<input type="checkbox"/> F1 - Loamy Mucky Mineral	<input type="checkbox"/> A16 - Coast Prairie Redox (LRR F, G, H)
<input type="checkbox"/> A4 - Hydrogen Sulfide	<input type="checkbox"/> F2 - Loamy Gleyed Matrix	<input type="checkbox"/> S7 - Dark Surface (LRR G)
<input type="checkbox"/> A5 - Stratified Layers (LRR F)	<input type="checkbox"/> F3 - Depleted Matrix	<input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73)
<input type="checkbox"/> A9 - 1 cm Muck (LRR FGH)	<input type="checkbox"/> F6 - Redox Dark Surface	<input type="checkbox"/> F18 - Reduced Vertic
<input checked="" type="checkbox"/> A11 - Depleted Below Dark Surface	<input type="checkbox"/> F7 - Depleted Dark Surface	<input type="checkbox"/> TF2 - Red Parent Material
<input type="checkbox"/> A12 - Thick Dark Surface	<input type="checkbox"/> F8 - Redox Depressions	<input type="checkbox"/> TF12 - Very Shallow Dark Surface
<input type="checkbox"/> S1 - Sandy Mucky Mineral	<input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)		
<input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F)		
<input type="checkbox"/> S4 - Sandy Gleyed Matrix		

<sup>1</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: \_\_\_\_\_ Depth: \_\_\_\_\_      **Hydric Soil Present?** Y

Remarks: Soils meet indicator A11.

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **w-151n42w5-h1**

**VEGETATION** (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind. Status
1.	<i>Populus tremuloides</i>	35	Y	FAC
2.	<i>Populus balsamifera</i>	30	Y	FACW
3.	<i>Quercus macrocarpa</i>	10	N	FACU
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: 6 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)

Total Cover = 75

**Prevalence Index Worksheet**

Total % Cover of:	Multiply by:
OBL spp. <u>65</u>	x 1 = <u>65</u>
FACW spp. <u>60</u>	x 2 = <u>120</u>
FAC spp. <u>45</u>	x 3 = <u>135</u>
FACU spp. <u>10</u>	x 4 = <u>40</u>
UPL spp. <u>0</u>	x 5 = <u>0</u>
Total <u>180</u> (A)	<u>360</u> (B)

Prevalence Index = B/A = 2.000

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

1.	<i>Cornus alba</i>	10	Y	FACW
2.	<i>Cornus racemosa</i>	10	Y	FAC
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Hydrophytic Vegetation Indicators:**

         Rapid Test for Hydrophytic Vegetation

  X   Dominance Test is > 50%

  X   Prevalence Index is ≤ 3.0 \*

         Morphological Adaptations (Explain) \*

         Problem Hydrophytic Vegetation (Explain) \*

\* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Carex lacustris</i>	45	Y	OBL
2.	<i>Carex pellita</i>	20	Y	OBL
3.	<i>Carex sartwellii</i>	10	N	FACW
4.	<i>Equisetum pratense</i>	5	N	FACW
5.	<i>Rubus pubescens</i>	5	N	FACW
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				

**Definitions of Vegetation Strata:**

**Tree** - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** - Woody plants less than 3 in. DBH, regardless of height.

**Herb** - All herbaceous (non-woody) plants, regardless of size.

**Woody Vines** - All woody vines, regardless of height.

Woody Vine Stratum (Plot size: 30 ft. radius)

1.				
2.				
3.				
5.				
4.				

**Hydrophytic Vegetation Present?**   Y  

Remarks: **The tree stratum is dominated by quaking aspen and balsam poplar. The ground layer is dominated by sedges; mainly lake sedge and woolly sedge.**

**Additional Remarks:**