

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site:	L3R	Date:	06/28/14
Applicant:	Enbridge	County:	Kittson
Investigators:	EAB/RAJ	State:	MN
Soil Unit:	I132A	Subregion (MLRA or LRR):	MLRA 56
Landform:	Depression	NWI Classification:	
Slope (%):	0 - 2%	Local Relief:	CL
	Latitude: 48.569715	Longitude: -96.933287	Datum:
Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)			<input type="checkbox"/> Yes <input checked="" 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	Hydic Soils Present? Yes	
Wetland Hydrology Present?	Yes	Is This Sampling Point Within A Wetland?	Yes

Remarks: The wetland is a shallow marsh that is dominated by prairie cordgrass and located within a roadside ditch.

**HYDROLOGY**

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

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

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> <u>Y</u>
Surface Water Present? Yes <input checked="" type="checkbox"/> Depth: <u>10</u> (in.)	
Water Table Present? Yes <input type="checkbox"/> Depth: _____ (in.)	
Saturation Present? Yes <input checked="" type="checkbox"/> Depth: <u>0</u> (in.)	

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

Remarks: Recent rains have contributed to the current surface water level. The water table depth is unknown since soils could not be sampled within the roadside ditch.

**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		

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

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

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

Restrictive Layer	Type: _____	Depth: _____	<b>Hydic Soil Present?</b> <u>Y</u>
-------------------	-------------	--------------	-------------------------------------

Remarks: Soils could not be sampled due to potential buried utilities in the roadside ditch. Soils are assumed to be hydic based on the landscape position and dominance of hydrophytic vegetation.

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **w-159n49w26-a1**

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

Tree Stratum (Plot size: 30 ft. radius)

1.	Species Name	% Cover	Dominant	Ind.Status
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.7% (A/B)

Total Cover = 0

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

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

**Prevalence Index Worksheet**

Total % Cover of:		Multiply by:	
OBL spp.	<u>25</u>	x 1 =	<u>25</u>
FACW spp.	<u>55</u>	x 2 =	<u>110</u>
FAC spp.	<u>0</u>	x 3 =	<u>0</u>
FACU spp.	<u>25</u>	x 4 =	<u>100</u>
UPL spp.	<u>0</u>	x 5 =	<u>0</u>
Total		<u>105</u> (A)	<u>235</u> (B)
Prevalence Index = B/A =		<u>2.238</u>	

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Spartina pectinata</i>	40	Y	FACW
2.	<i>Eleocharis palustris</i>	15	Y	OBL
3.	<i>Elymus repens</i>	15	Y	FACU
4.	<i>Cirsium arvense</i>	10	N	FACU
5.	<i>Mentha arvensis</i>	5	N	FACW
6.	<i>Symphotrichum lanceolatum</i>	5	N	FACW
7.	<i>Alisma triviale</i>	5	N	OBL
8.	<i>Rumex stenophyllus</i>	5	N	FACW
9.	<i>Typha X glauca</i>	5	N	OBL
10.				
11.				
12.				
13.				
14.				
15.				

**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.

Total Cover = 105

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

1.				
2.				
3.				
4.				

**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.

Total Cover = 0

**Hydrophytic Vegetation Present?**   Y  

Remarks: **The vegetation is dominated by prairie cordgrass with a variety of other wetland species present, including some hybrid cattail, common spikerush, mint, and northern water plantain.**

**Additional Remarks:**