

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Subregion (MLRA or LRR):	MLRA 56	Date:	06/30/14
Applicant:	Enbridge	County:	Kittson	State:	MN
Investigators:	EAB/RAJ	Soil Unit:	I132A	NWI Classification:	
Landform:	Depression	Local Relief:	CC	Sample Point:	w-159n49w23-c1
Slope (%):	0 - 2%	Latitude:	48.57489	Longitude:	-96.937542
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?		Township:	
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		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 forested basin dominated by cottonwoods. It is located between drier areas of white spruce and cleared meadows.

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 checked="" 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 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)
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Field Observations:

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

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

Remarks: The observed hydrological indicators have been influenced by recent and ongoing rains.

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		
0-5	Hue 10YR	2/1	100					C	
5-10	Hue 10YR	2/1	70	Hue 2.5Y	4/1	30	D	M	C
10-18	Hue 2.5Y	4/4	56	Hue 10YR	3/6	4	C	M	C
10-18	Hue 10YR	2/1	40					C	

NRCS Hydric 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>Indicators for Problematic Soils¹</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)
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¹Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer Type: _____	Depth: _____	Hydic Soil Present? <u>Y</u>
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Remarks: The wetland seems to have been recently created; hydric soils may have yet to completely develop.

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Project/Site: **L3R** Sample Point: **w-159n49w23-c1**

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

Tree Stratum (Plot size: 30 ft. radius)

1.	Species Name	% Cover	Dominant	Ind.Status
1.	<i>Populus deltoides</i>	80	Y	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 4 (A)

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

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

Total Cover = 80

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>10</u>	x 1 =	<u>10</u>
FACW spp. <u>5</u>	x 2 =	<u>10</u>
FAC spp. <u>80</u>	x 3 =	<u>240</u>
FACU spp. <u>5</u>	x 4 =	<u>20</u>
UPL spp. <u>5</u>	x 5 =	<u>25</u>
Total <u>105</u> (A)		<u>305</u> (B)

Prevalence Index = B/A = 2.905

Total Cover = 0

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Bromus inermis</i>	5	Y	UPL
2.	<i>Poa pratensis</i>	5	Y	FACU
3.	<i>Symphotrichum lanceolatum</i>	5	Y	FACW
4.	<i>Typha X glauca</i>	5	Y	OBL
5.	<i>Alisma triviale</i>	5	Y	OBL
6.				
7.				
8.				
9.				
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 = 25

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

1.				
2.				
3.				
5.				
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 wetland is dominated by cottonwoods with a sparse understory.**

Additional Remarks: