

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site:	L3R	Subregion (MLRA or LRR):	MLRA 56	Date:	08/25/14
Applicant:	Enbridge	County:	Marshall	State:	MN
Investigators:	RAJ/BEH				
Soil Unit:	I53A	NWI Classification:			
Landform:	Dip	Local Relief:	CC	Sample Point:	w-155n45w28-c1
Slope (%):	0 - 2%	Latitude:	48.220917	Longitude:	-96.447716
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 checked="" type="checkbox"/> Soil <input checked="" type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed?			Are normal circumstances present?		
Are Vegetation <input checked="" type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?			<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No		
				Township:	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: A seasonally-flooded wetland in a cultivated field planted to soybeans. The depression was not planted this spring but has been planted in the past. As a managed plant community, the vegetation is naturally problematic and is disturbed from herbicide use. The soils are disturbed from tillage. All parameters of wetland conditions are met.

HYDROLOGY

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

<u>Primary:</u> <input checked="" type="checkbox"/> A1 - Surface Water <input type="checkbox"/> A2 - High Water Table <input type="checkbox"/> A3 - Saturation <input type="checkbox"/> B1 - Water Marks <input type="checkbox"/> B2 - Sediment Deposits <input checked="" 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)	<u>Secondary:</u> <input type="checkbox"/> B6 - Surface Soil Cracks <input checked="" type="checkbox"/> B8 - Sparsely Vegetated Concave Surface <input checked="" 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 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: <u>3</u> (in.)	Wetland Hydrology Present? <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: There is surface water present, but saturation and water table depths cannot be determined as the clay soil is an aquitard and is suspending recent precipitation water. There is a dense algal mat in the deeper microdepressions and tire ruts. Indicators of wetland hydrology are present.

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		
0-2	Hue_10YR	2/1	100					SICL	
2-12	Hue_2.5Y	6/1	60	Hue_2.5Y	5/4	40	C	M	C with pebbles
12-21	Hue_2.5Y	6/1	100						C with pebbles

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 checked="" 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 checked="" 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 - Coast 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 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: _____	Hydric Soil Present? <u>Y</u>
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Remarks: The soil has a thin dark surface over depleted clay. Hydric soils are indicated. Soil was sampled in a microdepression.

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Great Plains Region

Project/Site: **L3R** Sample Point: **w-155n45w28-c1**

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

Tree Stratum (Plot size: 30 ft. radius)

	Species Name	% Cover	Dominant	Ind. Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		Total Cover =	0	

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: **1** (A)

Total Number of Dominant Species Across All Strata: **1** (B)

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

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

1.				
2.				
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
		Total Cover =	0	

Prevalence Index Worksheet

Total % Cover of:	Multiply by:	
OBL spp. 1	x 1 =	1
FACW spp. 0	x 2 =	0
FAC spp. 15	x 3 =	45
FACU spp. 2	x 4 =	8
UPL spp. 0	x 5 =	0
Total 18 (A)		54 (B)
Prevalence Index = B/A =		3.000

Herb Stratum (Plot size: 5 ft. radius)

1.	<i>Echinochloa crus-galli</i>	15	Y	FAC
2.	<i>Artemisia biennis</i>	1	N	FACU
3.	<i>Amaranthus retroflexus</i>	1	N	FACU
4.	<i>Panicum capillare</i>	1	N	OBL
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
13.				
14.				
15.				
		Total Cover =	18	

Hydrophytic Vegetation Indicators:

Rapid Test for Hydrophytic Vegetation

Dominance Test is > 50%

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.

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.				
		Total Cover =	0	

Hydrophytic Vegetation Present? **Y**

Remarks: **Vegetation is naturally problematic as a managed plant community and is disturbed from herbicide use. The site is a depressional wetland plant community dominated by annual species. The little vegetation that is present is hydrophytic.**

Additional Remarks: