

WETLAND DETERMINATION DATA FORM - Great Plains Region

Project/Site: L3R City/County: Pennington Sampling Date: 2015-07-09

Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-153n44w11-b1_R

Investigator(s): BJC/BCS Section, Township, Range: _____

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Conca... Slope (%): 0-2%

Subregion (LRR or MLRA): LRR F Latitude: 48.0928041274... Longitude: -96.27396876...

Datum: Minnesota State Plane North, NAD 83 (2011) U.S. feet

Soil Map Unit Name: Rosewood fine sandy loam NWI Classification: PSS1B

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes

Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes

Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the Sampled Area within a Wetland? <u>Yes</u> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a Shrub-Carr dominated by meadow willow and lake sedge. It is located in a depression within a mesic forest.		

VEGETATION - Use scientific names of plants.

Tree Stratum	(Plot Size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
3.	_____	_____	_____	_____
4.	_____	_____	_____	_____
		<u>0</u> = Total Cover		
Sapling/Shrub Stratum (Plot Size: <u>15 ft</u>)				
1.	<u>Salix petiolaris</u>	<u>70.00</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Salix discolor</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>
3.	<u>Salix interior</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>
4.	_____	_____	_____	_____
5.	_____	_____	_____	_____
		<u>80</u> = Total Cover		
Herb Stratum (Plot Size: <u>5 ft</u>)				
1.	<u>Carex lacustris</u>	<u>35.00</u>	<u>Yes</u>	<u>OBL</u>
2.	<u>Typha X glauca</u>	<u>25.00</u>	<u>Yes</u>	<u>OBL</u>
3.	<u>Equisetum fluviatile</u>	<u>15.00</u>	<u>No</u>	<u>OBL</u>
4.	<u>Cornus alba</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>
5.	<u>Phalaris arundinacea</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>
6.	<u>Acorus americanus</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>
7.	_____	_____	_____	_____
8.	_____	_____	_____	_____
9.	_____	_____	_____	_____
10.	_____	_____	_____	_____
		<u>95</u> = Total Cover		
Woody Vine Stratum (Plot Size: _____)				
1.	_____	_____	_____	_____
2.	_____	_____	_____	_____
		<u>0</u> = Total Cover		
% Bare Ground in Herb Stratum _____				

Dominance Test worksheet:
Number of Dominant Species _____
That Are OBL, FACW, or FAC: 3 (A)
Total Number of Dominant Species _____
Species Across All Strata: 3 (B)
Percent of Dominant Species _____
That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:
Total % Cover of: _____ Multiply by: _____
OBL species 150.00 x 1 150
FACW species 25.00 x 2 50
FACU species 0.00 x 3 0
UPL species 0.00 x 4 0
Column Totals 175 (A) 200 (B)
Prevalence Index = B/A = 1.1428571...

Hydrophytic Vegetation Indicators:
yes 1 - Rapid Test for Hydrophytic Vegetation
yes 2 - Dominance Test is > 50%
yes 3 - Prevalence Index is ≤ 3.0¹
____ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation¹ _____
(Explain) _____
¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? _____

Remarks:
The wetland sample point is dominated by meadow willow, lake sedge, and hybrid cattail.

SOIL

Sampling Point: w-153n44...

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

Depth	Matrix	Redox Features							
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-10	10YR 2 1	100					P		
10-24	10YR 2 1	100					MP		

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

☒ Histosol (A1)

☐ Sandy Gleyed Matrix (S4)

☐ Histic Epipedon (A2)

☐ Sandy Redox (S5)

☐ Black Histic (A3)

☐ Stripped Matrix (S6)

☐ Hydrogen Sulfide (A4)

☐ Loamy Mucky Mineral (F1) (LRR K, L)

☐ Stratified Layers (A5)

☐ Loamy Gleyed Matrix (F2)

☐ 1cm Muck (A9) (LRR F, G, H)

☐ Depleted Matrix (F3)

☐ Depleted Below Dark Surface (A11)

☐ Redox Dark Surface (F6)

☐ Thick Dark Surface (A12)

☐ Depleted Dark Surface (F7)

☐ Sandy Mucky Mineral (S1)

☐ Redox Depressions (F8)

☐ 2.5cm Mucky Peat or Peat (S2)(LRR G, H)

☐ High Plains Depressions (F16)

☐ 5cm Mucky Peat or Peat (S3) (LRR F)

(MLRA 72 & 73 of LRR H)

Indicators for Problematic Hydric Soil³:

☐ 1cm Muck (A9) (LRR I, J)

☐ Coast Prairie Redox (A16)(LRR K, L, R)

☐ Dark Surface (S7) (LRR G)

☐ High Plains Depressions (F16)

(LRR H outside of MLRA 72 & 73)

☐ Reduced Vertic (F18)

☐ Red Parent Material (F21)

☐ Very Shallow Dark Surface (TF12)

☐ Other (explain in remarks)

³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if present):

☐

Type:

Depth (inches):

Hydric Soil Present? Yes

Remarks:

A dark peat layer was observed over a mucky peat layer of the same color.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)

yes Surface Water (A1)

Salt Crust (B11)

yes High Water Table (A2)

Aquatic Invertebrates (B13)

yes Saturation (A3)

Hydrogen Sulfide Odor (C1)

Water Marks (B1)

Dry-Season Water Table (C2)

Sediment Deposits (B2)

Oxidized Rhizospheres on Living Roots (C3)

Drift Deposits (B3)

(where not tilled)

Algal Mat or Crust (B4)

Presence of Reduced Iron (C4)

Iron Deposits (B5)

Thin Muck Surface (C7)

Water-Stained Leaves (B9)

Other (Explain in Remarks)

Inundation Visible on Aerial Imagery (B7)

Secondary Indicators (minimum of two required)

Surface Soil Cracks (B6)

Sparsely Vegetated Concave Surface (B8)

Drainage Patterns (B10)

Oxidized Rhizospheres on Living Roots (C3)

(where tilled)

Crayfish Burrows (C8)

Saturation Visible on Aerial Imagery (C9)

yes Geomorphic Position (D2)

yes FAC-Neutral Test (D5)

yes Frost-Heave Hummocks (D7) (LRR F)

Field Observations:

Surface Water Present? Yes

Depth (inches) 10

Water Table Present? Yes

Depth (inches) 0

Saturation Present? Yes

Depth (inches) 0

(includes capillary fringe)

Wetland Hydrology Present? Yes

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

Remarks:

Surface water is present throughout the wetland.

Site Photograph 1

Sampling Point: w-153n44w11-b1_R