

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 5/27/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CRR51010_615a2W
 Investigator(s): BJC/DGL Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CC
 Slope (%): 0 - 2% Lat.: 46.607707 Long.: -92.546058 Datum: _____
 Soil Map Unit Name: 975C NWI Classification: PSSB
 Are climatic/hydrologic conditions of the site typical for this time of the year? ☒ (If no, explain in remarks)
 Are vegetation ☐, soil ☐, or hydrology ☐ significantly disturbed? Are "normal
 Are vegetation ☐, soil ☐, or hydrology ☐ naturally problematic? circumstances" present? ☒
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a large scrub-shrub community located in a low-lying area.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ High Water Table (A2) ☒ Saturation (A3) ☐ Water Marks (B1) ☐ Sediment Deposits (B2) ☐ Drift Deposits (B3) ☐ Algal Mat or Crust (B4) ☐ Iron Deposits (B5) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Sparsely Vegetated Concave Surface (B8) ☐ Water-Stained Leaves (B9) ☐ Aquatic Fauna (B13) ☐ Marl Deposits (B15) ☐ Hydrogen Sulfide Odor (C1) ☐ Oxidized Rhizospheres on Living Roots (C3) ☐ Presence of Reduced Iron (C4) ☐ Recent Iron Reduction in Tilled Soils (C6) ☐ Thin Muck Surface (C7) ☐ Other (Explain in Remarks)		Secondary Indicators (minimum of two required) ☐ Surface Soil Cracks (B6) ☐ Drainage Patterns (B10) ☐ Moss Trim Lines (B16) ☐ Dry-Season Water Table (C2) ☐ Crayfish Burrows (C8) ☐ Saturation Visible on Aerial Imagery (C9) ☐ Stunted or Stressed Plants (D1) ☒ Geomorphic Position (D2) ☐ Shallow Aquitard (D3) ☐ Microtopographic Relief (D4) ☒ FAC-Neutral Test (D5)
Field Observations: Surface water present? Yes ☐ Depth (inches): _____ Water table present? Yes ☒ Depth (inches): <u>14</u> Saturation present? Yes ☒ Depth (inches): <u>12</u> (includes capillary fringe)		Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Surface saturation is present in other areas of the wetland, but not at the sample point.		

VEGETATION - Use scientific names of plants
Sampling Point:

CRR51010_615a2W

Tree Stratum		Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
			0	= Total Cover	

Sapling/Shrub Stratum		Plot Size (15 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Salix petiolaris</i>		50	Y	FACW
2	<i>Alnus incana</i>		10	N	FACW
3					
4					
5					
6					
7					
8					
9					
10					
			60	= Total Cover	

Herb Stratum		Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Calamagrostis canadensis</i>		25	Y	OBL
2	<i>Scirpus atrovirens</i>		20	Y	OBL
3	<i>Spiraea alba</i>		10	N	FACW
4	<i>Ranunculus hispidus</i>		10	N	FAC
5	<i>Trifolium pratense</i>		5	N	FACU
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
			70	= Total Cover	

Woody Vine Stratum		Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1					
2					
3					
4					
5					
			0	= Total Cover	

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	12	30
Herb Stratum	14	35
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

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

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	<u>45</u> x 1 =	<u>45</u>
FACW species	<u>70</u> x 2 =	<u>140</u>
FAC species	<u>10</u> x 3 =	<u>30</u>
FACU species	<u>5</u> x 4 =	<u>20</u>
UPL species	<u>0</u> x 5 =	<u>0</u>
Column totals	<u>130</u> (A)	<u>235</u> (B)
Prevalence Index = B/A =		<u>1.81</u>

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ Prevalence index is ≤3.0*

Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)

Problematic 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. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

Sapling/shrub - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall.

Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

Woody vines - All woody vines greater than 3.28 ft in height.

Hydrophytic vegetation present? Y

Remarks: (Include photo numbers here or on a separate sheet)
 The vegetation is dominated by tall shrub species. Ground cover is reduced due to the presence of cattle.

SOIL

Sampling Point: CRR51010_615a2W

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth (In.)	Matrix			Redox Features					Texture	Remarks
	Color (moist)		%	Color (moist)		%	Type*	Loc**		
0-11	Hue_7.5YR	2.5/1	80	Hue_5YR	3/4	20	C	M	FSL	
11-18	Hue_7.5YR	4/3	75	Hue_5YR	3/4	25	C	M	VFS	

*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

**Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators:

☐ Histic Sol (A1)
☐ Histic Epipedon (A2)
☐ Black Histic (A3)
☐ Hydrogen Sulfide (A4)
☐ Stratified Layers (A5)
☐ Depleted Below Dark Surface (A11)
☐ Thick Dark Surface (A12)
☐ Sandy Mucky Mineral (S1)
☐ Sandy Gleyed Matrix (S4)
☐ Sandy Redox (S5)
☐ Stripped Matrix (S6)
☐ Dark Surface (S7) (**LRR R, MLRA**)

☐ Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
☐ Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
☐ Loamy Mucky Mineral (F1) (**LRR K, L**)
☐ Loamy Gleyed Matrix (F2)
☐ Depleted Matrix (F3)
☒ Redox Dark Surface (F6)
☐ Depleted Dark Surface (F7)
☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils:

☐ 2 cm Muck (A10) (**LRR K, L, MLRA 149B**)
☐ Coast Prairie Redox (A16) (**LRR K, L, R**)
☐ 5 cm Mucky Peat or Peat (S3) (**LRR K, L, R**)
☐ Dark Surface (S7) (**LRR K, L**)
☐ Polyvalue Below Surface (S8) (**LRR K, L**)
☐ Thin Dark Surface (S9) (**LRR K, L**)
☐ Iron-Manganese Masses (F12) (**LRR K, L, R**)
☐ Piedmont Floodplain Soils (F19) (**MLRA 149B**)
☐ Mesic Spodic (TA6) (**MLRA 144A, 145, 149B**)
☐ Red Parent Material (F21)
☐ Very Shallow Dark Surface (TF12)
☐ Other (Explain in Remarks)

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

Restrictive Layer (if observed):
Type: _____
Depth (inches): _____

Hydric soil present? Y

Remarks:
High concentrations of redoximorphic features were observed throughout the soil profile.