

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 6/11/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CRC5115_300b1W
 Investigator(s): JRT/KJA Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CC
 Slope (%): 0 - 2% Lat.: 46.580922 Long.: -92.616418 Datum: _____
 Soil Map Unit Name: 504C 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 consists of a sedge meadow community located within a pastured area. There are many hummocks and small pockets of standing water throughout the site.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) <table style="width: 100%;"> <tr> <td>☐ Surface Water (A1)</td> <td>☐ Water-Stained Leaves (B9)</td> </tr> <tr> <td>☐ High Water Table (A2)</td> <td>☐ Aquatic Fauna (B13)</td> </tr> <tr> <td>☒ Saturation (A3)</td> <td>☐ Marl Deposits (B15)</td> </tr> <tr> <td>☐ Water Marks (B1)</td> <td>☐ Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td>☐ Sediment Deposits (B2)</td> <td>☐ Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td>☐ Drift Deposits (B3)</td> <td>☐ Presence of Reduced Iron (C4)</td> </tr> <tr> <td>☐ Algal Mat or Crust (B4)</td> <td>☐ Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td>☐ Iron Deposits (B5)</td> <td>☐ Thin Muck Surface (C7)</td> </tr> <tr> <td>☐ Inundation Visible on Aerial Imagery (B7)</td> <td>☐ Other (Explain in Remarks)</td> </tr> <tr> <td>☐ Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>		☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Sparsely Vegetated Concave Surface (B8)		Secondary Indicators (minimum of two required) <table style="width: 100%;"> <tr> <td>☐ Surface Soil Cracks (B6)</td> </tr> <tr> <td>☐ Drainage Patterns (B10)</td> </tr> <tr> <td>☐ Moss Trim Lines (B16)</td> </tr> <tr> <td>☐ Dry-Season Water Table (C2)</td> </tr> <tr> <td>☐ Crayfish Burrows (C8)</td> </tr> <tr> <td>☐ Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td>☐ Stunted or Stressed Plants (D1)</td> </tr> <tr> <td>☐ Geomorphic Position (D2)</td> </tr> <tr> <td>☐ Shallow Aquitard (D3)</td> </tr> <tr> <td>☐ Microtopographic Relief (D4)</td> </tr> <tr> <td>☒ FAC-Neutral Test (D5)</td> </tr> </table>	☐ 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)
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)																																
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)																																
☒ Saturation (A3)	☐ Marl Deposits (B15)																																
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)																																
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)																																
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)																																
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)																																
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)																																
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)																																
☐ Sparsely Vegetated Concave Surface (B8)																																	
☐ 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 ☐ Water table present? Yes ☐ Saturation present? Yes ☒ (includes capillary fringe)	Depth (inches): _____ Depth (inches): _____ Depth (inches): <u>2</u>																																
Indicators of wetland hydrology present? <u>Y</u>																																	
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																	
Remarks: One primary indicator of wetland hydrology observed: saturation.																																	

VEGETATION - Use scientific names of plants
Sampling Point:

CRC5115_300b1W

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>Alnus incana</i>		5	Y	FACW
2					
3					
4					
5					
6					
7					
8					
9					
10					
			5	= Total Cover	

Herb Stratum		Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Carex stricta</i>		25	Y	OBL
2	<i>Carex intumescens</i>		20	Y	FACW
3	<i>Carex stipata</i>		20	Y	OBL
4	<i>Carex canescens</i>		20	Y	OBL
5	<i>Carex gracillima</i>		15	N	FACU
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
			100	= 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	1	3
Herb Stratum	20	50
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	<u>65</u> x 1 =	<u>65</u>
FACW species	<u>25</u> x 2 =	<u>50</u>
FAC species	<u>0</u> x 3 =	<u>0</u>
FACU species	<u>15</u> x 4 =	<u>60</u>
UPL species	<u>0</u> x 5 =	<u>0</u>
Column totals	<u>105</u> (A)	<u>175</u> (B)
Prevalence Index = B/A =		<u>1.67</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 in height.

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 sedge meadow is dominated by Carex species with scattered speckled alder shrubs. All alder has been cut 6-12 inches off the ground and is resprouting.

SOIL

Sampling Point: CRC5115_300b1W

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**		
0-4	Hue 7.5YR	2.5/1	100						CL	
4-18	Hue 7.5YR	4/4	85	Hue_5YR	4/6	15	C	M	S	

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

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

Hydric Soil Indicators:

☐ Histosol (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? <u> Y </u>
---	--

Remarks:
The soils meet hydric indicator A4, Hydrogen Sulfide.