

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 6/4/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CLC5085_210b2W
 Investigator(s): EAB/RAJ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none) CC
 Slope (%): 0 - 2% Lat.: 47.377106 Long.: -95.233042 Datum: _____
 Soil Map Unit Name: 169B NWI Classification: _____
 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 circumstances" present? ☒
 Are vegetation ☐, soil ☐, or hydrology ☐ naturally problematic? ☐
 (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 community is a depressional fresh meadow dominated by reed canary grass.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
☐ 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)	☐ 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): <u>1</u> Depth (inches): <u>0</u>	Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: Soils are highly saturated throughout the wetland.			

VEGETATION - Use scientific names of plants
Sampling Point:

CLC5085_210b2W

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>				20	Y	FACW
2		<i>Populus tremuloides</i>				1	N	FAC
3								
4								
5								
6								
7								
8								
9								
10								
					21	=	Total Cover	

Herb Stratum			Plot Size (5 ft)			Absolute % Cover	Dominant Species	Indicator Status
1		<i>Phalaris arundinacea</i>				80	Y	FACW
2		<i>Ribes hirtellum</i>				10	N	FACW
3		<i>Maianthemum canadense</i>				5	N	FACU
4		<i>Solidago rigida</i>				5	N	FACW
5		<i>Rubus idaeus</i>				5	N	FAC
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
					105	=	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	4	11
Herb Stratum	21	53
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 2 (B)

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	115	x 2 =	230
FAC species	6	x 3 =	18
FACU species	5	x 4 =	20
UPL species	0	x 5 =	0
Column totals	126	(A)	268 (B)
Prevalence Index = B/A =		<u>2.13</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 reed canary grass, with some small hydrophytic shrubs present.

SOIL

Sampling Point:

CLC5085_210b2W

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

[illegible]

*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**

Indicators for Problematic Hydric Soils:

- ☐ 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)

- ☐ 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:

The soil is mucky mineral at the surface with sandy clay beneath. Digging past 14" was ineffective because the super-saturated soil from the sides of the hole repeatedly caved in.