

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_210b1W
 Investigator(s): EAB/RAJ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none) CC
 Slope (%): 0 - 2% Lat.: 47.377041 Long.: -95.232481 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 wetland lies on the edge of moist woods and is dominated by quaking aspen, balsam poplar, balsam fir, and dwarf red raspberry.	

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>3</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 saturated throughout the profile.			

VEGETATION - Use scientific names of plants
Sampling Point:

CLC5085_210b1W

Tree Stratum				Plot Size (30 ft)		Absolute %	Dominant	Indicator
				Cover		Species	Status	
1	<i>Populus tremuloides</i>			60		Y	FAC	
2	<i>Populus balsamifera</i>			30		Y	FACW	
3								
4								
5								
6								
7								
8								
9								
10								
				90	=	Total Cover		

Sapling/Shrub Stratum				Plot Size (15 ft)		Absolute %	Dominant	Indicator
				Cover		Species	Status	
1	<i>Abies balsamea</i>			40		Y	FAC	
2	<i>Populus balsamifera</i>			15		Y	FACW	
3								
4								
5								
6								
7								
8								
9								
10								
				55	=	Total Cover		

Herb Stratum				Plot Size (5 ft)		Absolute %	Dominant	Indicator
				Cover		Species	Status	
1	<i>Rubus pubescens</i>			30		Y	FACW	
2	<i>Fragaria virginiana</i>			30		Y	FACU	
3	<i>Luzula acuminata</i>			20		Y	FACU	
4	<i>Galium boreale</i>			15		N	FAC	
5	<i>Solidago gigantea</i>			1		N	FACW	
6	<i>Phalaris arundinacea</i>			1		N	FACW	
7	<i>Populus balsamifera</i>			1		N	FACW	
8	<i>Sanicula marilandica</i>			1		N	FACU	
9	<i>Geum aleppicum</i>			1		N	FAC	
10								
11								
12								
13								
14								
15								
				100	=	Total Cover		

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

50/20 Thresholds

	20%	50%
Tree Stratum	18	45
Sapling/Shrub Stratum	11	28
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: 7 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 71.43% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	78	x 2 =	156
FAC species	116	x 3 =	348
FACU species	51	x 4 =	204
UPL species	0	x 5 =	0
Column totals	245 (A)		708 (B)
Prevalence Index = B/A =	<u>2.89</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)

Quaking aspen, balsam poplar, and balsam fir dominate the canopy and subcanopy.

SOIL

Sampling Point:

CLC5085 210b1W

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:

Redox features are present. Soil contains gravel and cobble. Digging past 14" was ineffective because sand from the sides of the hole repeatedly caved in.