

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 5/31/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CR159_200a1U
 Investigator(s): LEB/CPF Section, Township, Range: _____
 Landform (hillslope, terrace, etc.) Footslope Local relief (concave, convex, none) CC
 Slope (%): 3 - 7% Lat.: 46.598265 Long.: -92.315104 Datum: _____
 Soil Map Unit Name: 303 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
 Are vegetation ☐, soil ☐, or hydrology ☐ naturally problematic? circumstances" present? ☒
 (If needed, explain any answers in remarks)

SUMMARY OF FINDINGS

Hydrophytic vegetation present? <u>N</u> Hydric soil present? <u>N</u> Indicators of wetland hydrology present? <u>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) The point is located on a slight slope within a regenerating aspen forest with pockets of red maple, black ash and quaking aspen.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) ☐ 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 ☐ Drift Deposits (B3) ☐ Living Roots (C3) ☐ Algal Mat or Crust (B4) ☐ Presence of Reduced Iron (C4) ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled ☐ Inundation Visible on Aerial ☐ Soils (C6) Imagery (B7) ☐ Thin Muck Surface (C7) ☐ Sparsely Vegetated Concave ☐ Other (Explain in Remarks) Surface (B8)		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 ☐ Water table present? Yes ☒ Saturation present? Yes ☒ (includes capillary fringe)	Depth (inches): _____ Depth (inches): <u>14</u> Depth (inches): <u>13</u>	Indicators of wetland hydrology present? <u>N</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No wetland hydrology was observed. Rain water filling the soil pit during time of survey		

VEGETATION - Use scientific names of plants
Sampling Point:

CR159_200a1U

Tree Stratum			Plot Size (30 ft)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Acer rubrum</i>			20	Y	FAC		
2	<i>Betula papyrifera</i>			10	Y	FACU		
3								
4								
5								
6								
7								
8								
9								
10								
			30	= Total Cover				

Sapling/Shrub Stratum			Plot Size (15 ft)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Populus tremuloides</i>			90	Y	FAC		
2								
3								
4								
5								
6								
7								
8								
9								
10								
			90	= Total Cover				

Herb Stratum			Plot Size (5 ft)			Absolute % Cover	Dominant Species	Indicator Status
1	<i>Eurybia macrophylla</i>			20	Y	UPL		
2	<i>Rubus pubescens</i>			10	Y	FACW		
3	<i>Anemone quinquefolia</i>			10	Y	FACU		
4	<i>Uvularia grandiflora</i>			5	N	NI		
5	<i>Maianthemum canadense</i>			5	N	FACU		
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
			50	= 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	6	15
Sapling/Shrub Stratum	18	45
Herb Stratum	10	25
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: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	<u>0</u> x 1 =	<u>0</u>
FACW species	<u>10</u> x 2 =	<u>20</u>
FAC species	<u>110</u> x 3 =	<u>330</u>
FACU species	<u>25</u> x 4 =	<u>100</u>
UPL species	<u>20</u> x 5 =	<u>100</u>
Column totals	<u>165</u> (A)	<u>550</u> (B)
Prevalence Index = B/A =		<u>3.33</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? N

Remarks: (Include photo numbers here or on a separate sheet)

The point is dominated by regenerating aspen with mesic forest understory species present.

SOIL

Sampling Point:

CR159 200a1U

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) | ☐ Polyvalue Below Surface |
| ☐ Histic Epipedon (A2) | (S8) (LRR R, MLRA 149B) |
| ☐ Black Histic (A3) | ☐ Thin Dark Surface (S9) |
| ☐ Hydrogen Sulfide (A4) | (LRR R, MLRA 149B) |
| ☐ Stratified Layers (A5) | ☐ Loamy Mucky Mineral (F1) |
| ☐ Depleted Below Dark Surface (A11) | (LRR K, L) |
| ☐ Thick Dark Surface (A12) | ☐ Loamy Gleyed Matrix (F2) |
| ☐ Sandy Mucky Mineral (S1) | ☐ Depleted Matrix (F3) |
| ☐ Sandy Gleyed Matrix (S4) | ☐ Redox Dark Surface (F6) |
| ☐ Sandy Redox (S5) | ☐ Depleted Dark Surface (F7) |
| ☐ Stripped Matrix (S6) | ☐ Redox Depressions (F8) |
| ☐ Dark Surface (S7) (LRR R, MLRA | |

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? N

Remarks:

No hydric features observed in dense red clay.