

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_627a3U
 Investigator(s): KJA/JRT Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Footslope Local relief (concave, convex, none): CL
 Slope (%): 0 - 2% Lat.: 46.617991 Long.: -92.517303 Datum: _____
 Soil Map Unit Name: 12E 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>N</u>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>N</u>	
Indicators of wetland hydrology present? <u>N</u>	

Remarks: (Explain alternative procedures here or in a separate report.)

The upland sample point is located under a stand of balsam fir upslope from the wetland. No hydrophytic vegetation or indicators of hydric soil or hydrology were observed.

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): _____
Saturation present? Yes ☐	Depth (inches): _____

(includes capillary fringe)

Indicators of wetland hydrology present? N

Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No indicators of wetland hydrology were observed.

VEGETATION - Use scientific names of plants
Sampling Point:

CRR51010_627a3U

Tree Stratum				Plot Size (30 ft)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Abies balsamea</i>				50	Y	FAC	
2	<i>Pinus resinosa</i>				25	Y	FACU	
3	<i>Populus tremuloides</i>				10	N	FAC	
4								
5								
6								
7								
8								
9								
10								
					85	=	Total Cover	

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

Herb Stratum				Plot Size (5 ft)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Maianthemum canadense</i>				20	Y	FACU	
2	<i>Linnæa borealis</i>				20	Y	FAC	
3	<i>Cornus canadensis</i>				5	N	FAC	
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
					45	=	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	17	43
Sapling/Shrub Stratum	6	15
Herb Stratum	9	23
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>0</u>	x 2 =	<u>0</u>
FAC species	<u>105</u>	x 3 =	<u>315</u>
FACU species	<u>55</u>	x 4 =	<u>220</u>
UPL species	<u>0</u>	x 5 =	<u>0</u>
Column totals	<u>160</u> (A)		<u>535</u> (B)
Prevalence Index = B/A =			<u>3.34</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 upland sample point has balsam fir, red pine and quaking aspen in overstory with balsam fir, beaked hazelnut and quaking aspen saplings present in shrub layer. False lily-of-the-valley and twinleaf dominated the ground layer.

SOIL

Sampling Point:

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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? N

Remarks:

No hydric soil indicators present.