

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_627a1W
 Investigator(s): KJA/JRT Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Talf Local relief (concave, convex, none): LL
 Slope (%): 0 - 2% Lat.: 46.619386 Long.: -92.512479 Datum: _____
 Soil Map Unit Name: 534 NWI Classification: PFO
 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>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Hydric soil present? <u>Y</u>	
Indicators of wetland hydrology present? <u>Y</u>	

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

The wetland sample point is located within forested wetland dominated by white cedar and black ash. A powerline corridor is located within the pipeline survey corridor along the southern side.

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): <u>2</u>
Saturation present? Yes ☒	Depth (inches): <u>0</u>

(includes capillary fringe)

Indicators of wetland hydrology present? Y

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

Remarks:

A high water table was observed at 2 inches, with soils saturated to the surface.

VEGETATION - Use scientific names of plants
Sampling Point:

CRR51010_627a1W

Tree Stratum			Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Thuja occidentalis</i>			30	Y	FACW
2	<i>Fraxinus nigra</i>			20	Y	FACW
3						
4						
5						
6						
7						
8						
9						
10				50	= Total Cover	

Sapling/Shrub Stratum			Plot Size (15 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Alnus incana</i>			25	Y	FACW
2	<i>Fraxinus nigra</i>			25	Y	FACW
3	<i>Abies balsamea</i>			5	N	FAC
4						
5						
6						
7						
8						
9						
10				55	= Total Cover	

Herb Stratum			Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Caltha palustris</i>			20	Y	OBL
2	<i>Maianthemum canadense</i>			10	Y	FACU
3	<i>Anemone quinquefolia</i>			5	N	FACU
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15				35	= 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	10	25
Sapling/Shrub Stratum	11	28
Herb Stratum	7	18
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: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 83.33% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	20	x 1 =	20
FACW species	100	x 2 =	200
FAC species	5	x 3 =	15
FACU species	15	x 4 =	60
UPL species	0	x 5 =	0
Column totals	140	(A)	295 (B)

Prevalence Index = B/A = 2.11

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 wetland point is located in a forested wetland dominated by white cedar and black ash. The shrub layer is dominated by speckled alder and black ash saplings with marsh marigold and false lily-of-the-valley common in the herbaceous layer.

SOIL

Sampling Point:

CRR51010_627a1W

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:

Soils are peat to a depth of 18 inches and meet the A1 hydric soil indicator.