

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 5/19/2014
 Applicant/Owner: Enbridge State: MN Sampling Point CR144b1W
 Investigator(s): CPF/DGL Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CL
 Slope (%): 0 - 2% Lat.: 46.604761 Long.: -92.353639 Datum: _____
 Soil Map Unit Name: 303E 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>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 sample point is located in an alder thicket fringing an ephemeral stream within a mixed conifer forest.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> High Water Table (A2) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input checked="" type="checkbox"/> FAC-Neutral Test (D5)	Field Observations: Surface water present? Yes <input type="checkbox"/> Water table present? Yes <input checked="" type="checkbox"/> Saturation present? Yes <input checked="" type="checkbox"/> (includes capillary fringe)
Depth (inches): _____ Depth (inches): <u>4</u> Depth (inches): <u>2</u>	Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks: The wetland surrounds an ephemeral stream. A high water table was observed at 4 inches.	

VEGETATION - Use scientific names of plants

Sampling Point: CR144b1W

Tree Stratum					Plot Size (30)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Populus tremuloides</i>		15	Y	FAC				
2									
3									
4									
5									
6									
7									
8									
9									
10									
			15	= Total Cover					
Sapling/Shrub Stratum					Plot Size (15)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Alnus incana</i>		70	Y	FACW				
2									
3									
4									
5									
6									
7									
8									
9									
10									
			70	= Total Cover					
Herb Stratum					Plot Size (5)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Ranunculus sceleratus</i>		15	Y	OBL				
2	<i>Saxifraga pensylvanica</i>		5	Y	OBL				
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
			20	= Total Cover					
Woody Vine Stratum					Plot Size (30)		Absolute % Cover	Dominant Species	Indicator Status
1									
2									
3									
4									
5									
			0	= Total Cover					

50/20 Thresholds		20%	50%
Tree Stratum	3	8	
Sapling/Shrub Stratum	14	35	
Herb Stratum	4	10	
Woody Vine Stratum	0	0	

Dominance Test Worksheet	
Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A)	
Total Number of Dominant Species Across all Strata: <u>4</u> (B)	
Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)	

Prevalence Index Worksheet	
Total % Cover of:	
OBL species	$\frac{20}{105} \times 1 = \frac{20}{105}$
FACW species	$\frac{70}{105} \times 2 = \frac{140}{105}$
FAC species	$\frac{15}{105} \times 3 = \frac{45}{105}$
FACU species	$\frac{0}{105} \times 4 = \frac{0}{105}$
UPL species	$\frac{0}{105} \times 5 = \frac{0}{105}$
Column totals	<u>105</u> (A) <u>205</u> (B)
Prevalence Index = B/A = <u>1.95</u>	

Hydrophytic Vegetation Indicators:	
<input type="checkbox"/> Rapid test for hydrophytic vegetation	
<input checked="" type="checkbox"/> Dominance test is >50%	
<input checked="" type="checkbox"/> Prevalence index is ≤3.0*	
Morphological adaptations* (provide supporting data in Remarks or on a separate sheet)	
<input type="checkbox"/> 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?	<u>Y</u>
--	----------

Remarks: (Include photo numbers here or on a separate sheet)
 The wetland is dominated by speckled alder with sparse vegetation below.

SOIL

Sampling Point: CR144b1W

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

Depth (In.)	Matrix			Redox Features				Texture	Remarks	
	Color (moist)		%	Color (moist)		%	Type*			Loc**
18	Hue_7.5YR	3/3	90	Hue_2.5YR	5/8	10	C	M	C	

*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 149B)

- 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)

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? Y

Remarks:

Bright redox features were observed in red clay. Soils meet hydric indicator F21, Red Parent Material.