

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 2015-06-30
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CR163e1W
 Investigator(s): ACM/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local Relief (concave, convex, none): Conca... Slope (%): 0-2
 Subregion (LRR or MLRA): _____ Latitude: 46.5967543144... Longitude: -92.29530338... Datum: Minnesota State ...
 Soil Map Unit Name: 303 NWI Classification: _____

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the Sampled Area within a Wetland?	<u>Yes</u>
Hydric Soil Present?	<u>Yes</u>		
Wetland Hydrology Present?	<u>Yes</u>		
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a hardwood swamp located within a larger forest and dominated by aspen, black ash, and raspberry.			

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted/Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input checked="" type="checkbox"/> FAC-Neutral Test (D5)
<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)	

Field Observations: Surface Water Present? <u>No</u> Depth (inches) _____ Water Table Present? <u>Yes</u> Depth (inches) <u>10</u> Saturation Present? <u>Yes</u> Depth (inches) <u>5</u> (includes capillary fringe)	Wetland Hydrology Present? <u>Yes</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:
 The water table is 10 inches below the surface and the soil is saturated at 5 inches.

VEGETATION - Use scientific names of plants.

Sampling Point: CR163e1W

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30 ft</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant <u>4</u> Species Across All Strata: _____ (B) Percent of Dominant Species That Are OBL, FACW, or FAC: $\frac{100}{\text{Total}} = \frac{100}{4} = \underline{\hspace{2cm}}$ (A/B)
1. <u>Populus tremuloides</u>	<u>75.00</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Fraxinus nigra</u>	<u>25.00</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Acer rubrum</u>	<u>2.00</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot Size: <u>15 ft</u>)				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species $\frac{10.00}{\text{Total}} \times 1 = \frac{10}{\text{Total}}$ FACW species $\frac{109.00}{\text{Total}} \times 2 = \frac{218}{\text{Total}}$ FACU species $\frac{77.00}{\text{Total}} \times 3 = \frac{108}{\text{Total}}$ UPL species $\frac{10.00}{\text{Total}} \times 4 = \frac{50}{\text{Total}}$ Column Totals <u>233</u> (A) <u>617</u> (B) Prevalence Index = $B/A = \frac{617}{233} = \underline{2.6480686...}$
1. <u>Fraxinus nigra</u>	<u>15.00</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Ilex verticillata</u>	<u>10.00</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Alnus incana</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
4. <u>Corylus americana</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
5. <u>Cornus alba</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
6. <u>Corylus cornuta</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
_____ = Total Cover				
Herb Stratum (Plot Size: <u>5 ft</u>)				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is > 50% <input checked="" type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$ <input type="checkbox"/> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) <small>¹Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
1. <u>Rubus pubescens</u>	<u>25.00</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Calamagrostis canadensis</u>	<u>10.00</u>	<u>No</u>	<u>OBL</u>	
3. <u>Valeriana officinalis</u>	<u>10.00</u>	<u>No</u>	_____	
4. <u>Fragaria virginiana</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	
5. <u>Equisetum pratense</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
6. <u>Solidago gigantea</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
7. <u>Carex gracillima</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
8. <u>Poa palustris</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
9. <u>Petasites frigidus</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
10. <u>Maianthemum canadense</u>	<u>2.00</u>	<u>No</u>	<u>FACU</u>	
11. <u>Carex projecta</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
12. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot Size: _____)				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 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.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Hydrophytic Vegetation Present? _____				
Remarks: (include photo numbers here or on a separate sheet.)				
The vegetation is dominated by aspen, black ash, winterberry, and dwarf raspberry.				

