

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 2015-06-26
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CR162a1W_RR
 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: 46.357959 Longitude: -92.180170 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? If yes, optional Wetland Site ID: _____
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 along a driveway adjacent to an upland forest. The vegetation is dominated by black ash, aspen, and Canad...		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
<u>_____</u> Surface Water (A1)	<u>_____</u> Water-Stained Leaves (B9)	<u>_____</u> Surface Soil Cracks (B6)	
<u>_____</u> High Water Table (A2)	<u>_____</u> Aquatic Fauna (B13)	<u>Yes</u> Drainage Patterns (B10)	
<u>Yes</u> Saturation (A3)	<u>_____</u> Marl Deposits (B15)	<u>_____</u> Moss Trim Lines (B16)	
<u>_____</u> Water Marks (B1)	<u>_____</u> Hydrogen Sulfide Odor (C1)	<u>_____</u> Dry-Season Water Table (C2)	
<u>_____</u> Sediment Deposits (B2)	<u>_____</u> Oxidized Rhizospheres on Living Roots (C3)	<u>_____</u> Crayfish Burrows (C8)	
<u>_____</u> Drift Deposits (B3)	<u>_____</u> Presence of Reduced Iron (C4)	<u>_____</u> Saturation Visible on Aerial Imagery (C9)	
<u>_____</u> Algal Mat or Crust (B4)	<u>_____</u> Recent Iron Reduction in Tilled Soils (C6)	<u>_____</u> Stunted/Stressed Plants (D1)	
<u>_____</u> Iron Deposits (B5)	<u>_____</u> Thin Muck Surface (C7)	<u>Yes</u> Geomorphic Position (D2)	
<u>_____</u> Inundation Visible on Aerial Imagery (B7)	<u>_____</u> Other (Explain in Remarks)	<u>_____</u> Shallow Aquitard (D3)	
<u>_____</u> Sparsely Vegetated Concave Surface (B8)		<u>_____</u> Microtopographic Relief (D4)	
		<u>Yes</u> FAC-Neutral Test (D5)	
Field Observations:			
Surface Water Present?	<u>No</u> Depth (inches) _____	Wetland Hydrology Present? <u>Yes</u>	
Water Table Present?	<u>Yes</u> Depth (inches) <u>16</u>		
Saturation Present? (includes capillary fringe)	<u>Yes</u> Depth (inches) <u>6</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The wetland is located in a depression and the soil is saturated at 6 inches.			

VEGETATION - Use scientific names of plants.

Sampling Point: CR162a1...

		Absolute % Cover	Dominant Species?	Indicator Status	
<u>Tree Stratum</u> (Plot Size: <u>30 ft</u>)					Dominance Test worksheet:
1.	<u>Populus tremuloides</u>	<u>50.00</u>	<u>Yes</u>	<u>FACU</u>	Number of Dominant Species
2.	<u>Fraxinus nigra</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	That Are OBL, FACW, or FAC: <u>2</u> (A)
3.					Total Number of Dominant
4.					<u>3</u>
5.					Species Across All Strata: (B)
6.					Percent of Dominant Species
7.					<u>66.666666666...</u>
					That Are OBL, FACW, or FAC: (A/B)
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft</u>)					Prevalence Index worksheet:
1.	<u>Fraxinus nigra</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>	Total % Cover of: <u>45.00</u> x 1 <u>45</u>
2.	<u>Populus tremuloides</u>	<u>20.00</u>	<u>Yes</u>	<u>FACU</u>	FACW species <u>104.00</u> x 2 <u>208</u>
3.	<u>Alnus incana</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	FACU species <u>10.00</u> x 3 <u>288</u>
4.	<u>Cornus alba</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	UPL species <u>0.00</u> x 4 <u>0</u>
5.					Column Totals <u>231</u> (A) <u>571</u> (B)
6.					Prevalence Index = B/A = <u>2.4718614...</u>
7.					
		<u>70</u>	= Total Cover		Hydrophytic Vegetation Indicators:
<u>Herb Stratum</u> (Plot Size: <u>5 ft</u>)					<u>1</u> - Rapid Test for Hydrophytic Vegetation
1.	<u>Calamagrostis canadensis</u>	<u>25.00</u>	<u>Yes</u>	<u>OBL</u>	<u>yes</u> <u>2</u> - Dominance Test is > 50%
2.	<u>Fraxinus nigra</u>	<u>25.00</u>	<u>Yes</u>	<u>FACW</u>	<u>yes</u> <u>3</u> - Prevalence Index is ≤ 3.0 ¹
3.	<u>Micranthes pensylvanica</u>	<u>15.00</u>	<u>No</u>	<u>OBL</u>	<u>4</u> - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
4.	<u>Athyrium angustum</u>	<u>10.00</u>	<u>No</u>	<u>FAC</u>	Problematic Hydrophytic Vegetation ¹ (Explain)
5.	<u>Equisetum pratense</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6.	<u>Scirpus microcarpus</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	Definitions of Vegetation Strata:
7.	<u>Rubus pubescens</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8.	<u>Impatiens capensis</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9.	<u>Cornus alba</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10.	<u>Carex gracillima</u>	<u>2.00</u>	<u>No</u>	<u>FACU</u>	Woody vines - All woody vines greater than 3.28 ft in height.
11.					
12.					
		<u>101</u>	= Total Cover		Hydrophytic Vegetation Present? _____
<u>Woody Vine Stratum</u> (Plot Size: _____)					
1.					
2.					
3.					
4.					
		<u>0</u>	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet.)					
The vegetation is dominated by black ash, aspen, and Canada bluejoint.					

SOIL

Sampling Point: CR162a1...

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

[illegible]¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☐ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Coast Prairie Redox (A16)(LRR K, L, R)
☐ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Dark Surface (S7) (LRR K, M)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Sandy Gleyed Matrix (S4)		☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Redox (S5)		☒ Red Parent Material (F21)
☐ Stripped Matrix (S6)		☐ Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B)		☐ Other (explain in remarks)
Restrictive Layer (if observed): ☐	Hydric Soil Present? <u>Yes</u>	
Remarks:		
The soils are silty clay over clay and meet hydric soil indicator F21.		