

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 2015-06-11
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CRR51010_500a1U
 Investigator(s): ACM/KRG Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): talf Local Relief (concave, convex, none): linear l... Slope (%): 0-2
 Subregion (LRR or MLRA): _____ Latitude: 46.5846580546... Longitude: -92.59521315... Datum: Minnesota State ...
 Soil Map Unit Name: 355C 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>No</u>	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>No</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The upland is a forest dominated by balsam fir, black ash, and quaking aspen. Although wetland hydrology is present, the site lacks hydric soils and hyd...		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)			
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)	
☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)	
☒ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)	
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)	
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)	
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)	
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted/Stressed Plants (D1)	
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	☐ Geomorphic Position (D2)	
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)	
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)	
		☐ FAC-Neutral Test (D5)	
Field Observations: Surface Water Present? <u>No</u> Depth (inches) _____ Water Table Present? <u>Yes</u> Depth (inches) <u>16</u> Saturation Present? <u>Yes</u> Depth (inches) <u>12</u> (includes capillary fringe)		Wetland Hydrology Present? <u>Yes</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks: The soil is saturated at 12 inches.			

VEGETATION - Use scientific names of plants.

 Sampling Point: CRR51010...

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant <u>4</u> Species Across All Strata: _____ (B) Percent of Dominant Species <u>50</u> That Are OBL, FACW, or FAC: _____ (A/B)
1. <u>Populus tremuloides</u>	<u>50.00</u>	<u>Yes</u>	<u>FACU</u>	
2. <u>Abies balsamea</u>	<u>35.00</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Fraxinus nigra</u>	<u>25.00</u>	<u>Yes</u>	<u>FACW</u>	
4. _____	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
5. _____	_____	_____	_____	
6. <u>Acer rubrum</u>	_____	_____	_____	
7. _____	_____	_____	_____	
			<u>115</u> = Total Cover	
Sapling/Shrub Stratum (Plot Size: <u>15</u>)				
1. <u>Corylus cornuta</u>	<u>25.00</u>	<u>Yes</u>	<u>FACU</u>	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species <u>0.00</u> x 1 <u>0</u> FACW species <u>32.00</u> x 2 <u>64</u> FACU species <u>85.00</u> x 3 <u>480</u> UPL species <u>15.00</u> x 4 <u>75</u> Column Totals <u>252</u> (A) <u>874</u> (B) Prevalence Index = B/A = <u>3.4682539...</u>
2. <u>Abies balsamea</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
3. <u>Fraxinus nigra</u>	<u>2.00</u>	<u>No</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
			<u>32</u> = Total Cover	
Herb Stratum (Plot Size: <u>5</u>)				
1. <u>Carex gracillima</u>	<u>20.00</u>	<u>No</u>	<u>FACU</u>	
2. <u>Streptopus amplexifolius</u>	<u>15.00</u>	<u>No</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>no</u> 2 - Dominance Test is > 50% <u>no</u> 3 - Prevalence Index is ≤ 3.0 ¹ _____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. <u>Eurybia macrophylla</u>	<u>15.00</u>	<u>No</u>	<u>UPL</u>	
4. <u>Maianthemum canadense</u>	<u>10.00</u>	<u>No</u>	<u>FACU</u>	
5. <u>Athyrium angustum</u>	<u>10.00</u>	<u>No</u>	<u>FAC</u>	
6. <u>Matteuccia struthiopteris</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
7. <u>Rubus pubescens</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>	
8. <u>Lactuca biennis</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
9. <u>Acer rubrum</u>	<u>5.00</u>	<u>No</u>	<u>FAC</u>	
10. <u>Taraxacum officinale</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
11. <u>Milium effusum</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
12. <u>Pteridium aquilinum</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	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.
			<u>105</u> = Total Cover	
Woody Vine Stratum (Plot Size: _____)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
			<u>0</u> = Total Cover	
Remarks: (include photo numbers here or on a separate sheet.) The upland is dominated by quaking aspen, black ash, balsam fir, and beaked hazelnut with a mixed herbaceous layer.				
Hydrophytic Vegetation Present? _____				

SOIL

Sampling Point: CRR51010...

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>No</u>	
Type: _____		
Depth (inches): _____		
Remarks:		
Soils are silty clay over coarse sandy clay. No indicators of hydric soils were observed.		