

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Aitkin Sampling Date: 2016-08-10
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-51n26w31-ac1
 Investigator(s): ZCW, MGH Section, Township, Range: S31, T51N, R26W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CL Slope (%): 0-2%
 Subregion (LRR or MLRA): _____ Latitude: 46.8561287876... Longitude: -93.67892148... Datum: NAD83
 Soil Map Unit Name: 504B NWI Classification: N/A
 Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): No
 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?	
Hydric Soil Present?	<u>Yes</u>		<u>Yes</u>
Wetland Hydrology Present?	<u>Yes</u>		If yes, optional Wetland Site ID: <u>w-51n26w32-ac</u>
Remarks: (Explain alternative procedures here or in a separate report.) Climatic conditions are "wet" based on the results of a WETS analysis.			

HYDROLOGY

Wetland Hydrology Indicators:	<u>Secondary Indicators (minimum of two required)</u>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)

Field Observations:		Wetland Hydrology Present?	<u>Yes</u>
Surface Water Present?	<u>No</u>	Depth (inches)	_____
Water Table Present?	<u>Yes</u>	Depth (inches)	<u>3</u>
Saturation Present? (includes capillary fringe)	<u>Yes</u>	Depth (inches)	<u>0</u>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: w-51n26w...

	Absolute % Cover	Dominant Species?	Indicator Status		
Tree Stratum (Plot Size: <u>30</u>)					
1. <u>Quercus bicolor</u>	<u>55.00</u>	<u>Yes</u>		Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
2. <u>Fraxinus nigra</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>65</u> = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>15.00</u> x 1 <u>15</u> FACW species <u>125.00</u> x 2 <u>250</u> FACU species <u>0.00</u> x 3 <u>0</u> UPL species <u>5.00</u> x 4 <u>25</u> Column Totals <u>145</u> (A) <u>290</u> (B) Prevalence Index = B/A = <u>2</u>	
Sapling/Shrub Stratum (Plot Size: <u>15</u>)					
1. <u>Fraxinus nigra</u>	<u>30.00</u>	<u>Yes</u>	<u>FACW</u>		
2. <u>Alnus incana</u>	<u>10.00</u>	<u>Yes</u>	<u>FACW</u>		
3. <u>Quercus bicolor</u>	<u>5.00</u>	<u>No</u>	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
<u>45</u> = Total Cover					
Herb Stratum (Plot Size: <u>5</u>)					
1. <u>Calamagrostis canadensis</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: _____ 1 - Rapid Test for Hydrophytic Vegetation <u>yes</u> 2 - Dominance Test is > 50% <u>yes</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.	
2. <u>Osmunda spectabilis</u>	<u>10.00</u>	<u>Yes</u>	<u>OBL</u>		
3. <u>Iris versicolor</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
<u>35</u> = Total Cover					
Woody Vine Stratum (Plot Size: <u>30</u>)					
1. _____	_____	_____	_____	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 herbaeceous (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.	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
<u>0</u> = Total Cover				Hydrophytic Vegetation Present? <u>Yes</u>	
Remarks: (include photo numbers here or on a separate sheet.)					

SOIL

Sampling Point: w-51n26w...

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

Depth (inches)	Matrix		Redox Features		Type ¹	Loc ²	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-15	10YR 5 1	95	5 5 8	5	C	M	FSL	
15-24	10YR 5 2	90	10YR 5 6	10	C	M	SCL	

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

<p>Hydric Soil Indicators:</p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)</p>	<p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p>	<p>Indicators for Problematic Hydric Soil²:</p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16)(LRR K, L, R)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</p> <p><input type="checkbox"/> Dark Surface (S7) (LRR K, M)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Maganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</p> <p><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (explain in remarks)</p>
<p>Restrictive Layer (if observed): <input type="checkbox"/></p> <p>Type: _____</p> <p>Depth (inches): _____</p>		<p>Hydric Soil Present? Yes _____</p>
<p>Remarks:</p>		

Site Photograph 1

Sampling Point: w-51n26w31-ac1



Latitude: 46.8560929969389

Cowardin Classification: PFO

Longitude: -93.6789706909039

Circular 39: 7

Direction: North

Eggers & Reed: Hardwood Swamp/Coniferous Swamp

Remarks:

Empty rectangular box for remarks.

Site Photograph 2

Sampling Point: w-51n26w31-ac1



Latitude: 46.8560929131199

Cowardin Classification: PFO

Longitude: -93.6789705232658

Circular 39: 7

Direction: West

Eggers & Reed: Hardwood Swamp/Coniferous Swamp

Remarks:

Empty rectangular box for remarks.