

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: I3_mainline City/County: Aitkin Sampling Date: 2017-06-26
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-51n26w31-bc2
 Investigator(s): SMR, DPT Section, Township, Range: S31, T51N, R26W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2%
 Subregion (LRR or MLRA): _____ Latitude: 46.8574350234... Longitude: -93.68105174... Datum: NAD83
 Soil Map Unit Name: 502 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?	<u>Yes</u>
Hydric Soil Present?	<u>Yes</u>		If yes, optional Wetland Site ID: <u>w-51n26w31-bc</u>
Wetland Hydrology Present?	<u>Yes</u>		
Remarks: (Explain alternative procedures here or in a separate report.) WETS analysis found precipitation is below normal.			

HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)	
<u>yes</u> Surface Water (A1)	<u> </u> Surface Soil Cracks (B6)
<u> </u> Water-Stained Leaves (B9)	<u> </u> Drainage Patterns (B10)
<u>yes</u> High Water Table (A2)	<u> </u> Moss Trim Lines (B16)
<u> </u> Aquatic Fauna (B13)	<u> </u> Dry-Season Water Table (C2)
<u>yes</u> Saturation (A3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Marl Deposits (B15)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Water Marks (B1)	<u> </u> Stunted/Stressed Plants (D1)
<u> </u> Hydrogen Sulfide Odor (C1)	<u>yes</u> Geomorphic Position (D2)
<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Shallow Aquitard (D3)
<u> </u> Presence of Reduced Iron (C4)	<u> </u> Microtopographic Relief (D4)
<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u>yes</u> FAC-Neutral Test (D5)
<u> </u> Thin Muck Surface (C7)	
<u> </u> Other (Explain in Remarks)	
<u> </u> Inundation Visible on Aerial Imagery (B7)	
<u> </u> Sparsely Vegetated Concave Surface (B8)	

Field Observations:	
Surface Water Present? <u>Yes</u> Depth (inches) <u>4</u>	Wetland Hydrology Present? <u>Yes</u>
Water Table Present? <u>Yes</u> Depth (inches) <u>0</u>	
Saturation Present? <u>Yes</u> Depth (inches) <u>0</u> (includes capillary fringe)	

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

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: w-51n26w31-bc2

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: <u>30</u>)				
1. <u>Acer rubrum</u>	<u>10.00</u>	<u>Yes</u>	<u>FAC</u>	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A) Total Number of Dominant Species Across All Strata: <u>3</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>10</u> = Total Cover				
Sapling/Shrub Stratum (Plot Size: <u>15</u>)				
1. <u>Alnus incana</u>	<u>40.00</u>	<u>Yes</u>	<u>FACW</u>	Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species <u>90.00</u> x 1 <u>90</u> FACW species <u>60.00</u> x 2 <u>120</u> FACU species <u>0.00</u> x 3 <u>0</u> UPL species <u>0.00</u> x 4 <u>0</u> Column Totals <u>170</u> (A) <u>270</u> (B) Prevalence Index = B/A = <u>1.5882352...</u>
2. <u>Fraxinus nigra</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
3. <u>Acer rubrum</u>	<u>10.00</u>	<u>No</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>60</u> = Total Cover				
Herb Stratum (Plot Size: <u>5</u>)				
1. <u>Carex lacustris</u>	<u>90.00</u>	<u>Yes</u>	<u>OBL</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>Onoclea sensibilis</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>100</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 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.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
				Hydrophytic Vegetation Present? <u>Yes</u>

Remarks: (include photo numbers here or on a separate sheet.)

SOILSampling Point: w-51n26w31-bc2**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features			Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹		
0-10	10YR 2 1	100				MP	
10-16	10YR 4 2	90	10YR 5 6	10	C	M S	

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 :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A1.1)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Coast Prairie Redox (A16)(LRR K, L, R)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Dark Surface (S7) (LRR K, M)
	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
	<input type="checkbox"/> Red Parent Material (F21)
	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
	<input type="checkbox"/> Other (explain in remarks)
Restrictive Layer (if observed): <input type="checkbox"/>	
Type: <u>Rock</u>	Hydric Soil Present? <u>Yes</u>
Depth (inches): <u>16</u>	
Remarks:	