

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: I3_mainline City/County: Clearwater Sampling Date: 2017-06-19
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: w-146n37w12-g1
 Investigator(s): SMR, TDT Section, Township, Range: S12, T146N, R37W
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 3-7%
 Subregion (LRR or MLRA): _____ Latitude: 47.477664970837 Longitude: -95.30604695... Datum: NAD83
 Soil Map Unit Name: 40C NWI Classification: PSS1C
 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?	
Hydric Soil Present?	<u>Yes</u>		<u>Yes</u>
Wetland Hydrology Present?	<u>Yes</u>		If yes, optional Wetland Site ID: <u>PSS1C</u>
Remarks: (Explain alternative procedures here or in a separate report.)			

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>yes</u> High Water Table (A2)	<u> </u> Drainage Patterns (B10)
<u>yes</u> Saturation (A3)	<u> </u> Moss Trim Lines (B16)
<u>no</u> Water Marks (B1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Stunted/Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u>yes</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)	<u> </u> Microtopographic Relief (D4)
<u> </u> Water-Stained Leaves (B9)	<u>yes</u> FAC-Neutral Test (D5)
<u> </u> Aquatic Fauna (B13)	
<u> </u> Marl Deposits (B15)	
<u> </u> Hydrogen Sulfide Odor (C1)	
<u> </u> Oxidized Rhizospheres on Living Roots (C3)	
<u> </u> Presence of Reduced Iron (C4)	
<u> </u> Recent Iron Reduction in Tilled Soils (C6)	
<u> </u> Thin Muck Surface (C7)	
<u> </u> Other (Explain in Remarks)	

Field Observations:		Wetland Hydrology Present?	<u>Yes</u>
Surface Water Present?	<u>Yes</u>	Depth (inches)	<u>4</u>
Water Table Present?	<u>Yes</u>	Depth (inches)	<u>0</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-146n37w12-g1

	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 Species Across All Strata: <u>2</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: $\frac{100}{2}$ (A/B)
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
0 = Total Cover				Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species $\frac{50.00}{50.00} \times 1 = \frac{50}{100}$ FACW species $\frac{50.00}{50.00} \times 2 = \frac{100}{100}$ FACU species $\frac{0.00}{50.00} \times 3 = \frac{0}{100}$ UPL species $\frac{0.00}{50.00} \times 4 = \frac{0}{100}$ Column Totals $\frac{100}{100}$ (A) $\frac{150}{100}$ (B) Prevalence Index = B/A = <u>1.5</u>
Sapling/Shrub Stratum (Plot Size: <u>15</u>)				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
0 = Total Cover				
Herb Stratum (Plot Size: <u>5</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 ≤ 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>Scirpus cyperinus</u>	<u>40.00</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Carex vulpinoidea</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Carex vulpinoidea</u>	<u>20.00</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Iris versicolor</u>	<u>10.00</u>	<u>No</u>	<u>OBL</u>	
5. <u>Ranunculus repens</u>	<u>10.00</u>	<u>No</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
100 = Total Cover				
Woody Vine Stratum (Plot Size: <u>30</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.
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
0 = Total Cover				Hydrophytic Vegetation Present? Yes _____
Remarks: (include photo numbers here or on a separate sheet.)				

SOIL

Sampling Point: w-146n37w12-g1

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	Loc ²		
0-6	10YR 2 1	100					MM	
6-8	10YR 2 1	100					CS	

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 (A1.1)</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 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 Soil³:</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-Manganese 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>
Restrictive Layer (if observed): <input type="checkbox"/> Type: <u>ROCK</u> Depth (inches): <u>8</u>		Hydric Soil Present? <u>Yes</u>
Remarks:		