

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: Sandpiper City/County: Wadena Sampling Date: 09/12/2014  
 Applicant/Owner: Enbridge State: MN Sampling Point: WA021a2W  
 Investigator(s): DPT Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): Concave/Concave  
 Slope (%): 0 Lat.: \_\_\_\_\_ Long.: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: \_\_\_\_\_ NWI Classification: \_\_\_\_\_  
 Are climatic/hydrologic conditions of the site typical for this time of the year? \_\_\_\_\_ (If no, explain in remarks)  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ significantly disturbed? Are "normal  
 Are vegetation \_\_\_\_\_, soil \_\_\_\_\_, or hydrology \_\_\_\_\_ naturally problematic? circumstances" present? Yes  
 (If needed, explain any answers in remarks)

**SUMMARY OF FINDINGS**

Hydrophytic vegetation present? <u>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	<p align="center"><b>Is the sampled area within a wetland?</b> <u>Y</u></p> If yes, optional wetland site ID: <u>WA021a1W</u>
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center">PFO - Type 7, hardwood swamp</p>	

**HYDROLOGY**

Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Roots (C3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled <input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6) <input type="checkbox"/> Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Surface (B8)	Secondary Indicators (minimum of two required) <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery <input type="checkbox"/> (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input checked="" type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Microtopographic Relief (D4)
Field Observations: Surface water present?    Yes _____ No <u>X</u> Depth (inches): _____ Water table present?      Yes <u>X</u> No _____    Depth (inches): <u>16</u> Saturation present?        Yes <u>X</u> No _____    Depth (inches): <u>10</u> (includes capillary fringe)	<p align="center"><b>Indicators of wetland hydrology present?</b> <u>Y</u></p>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION** - Use scientific names of plants

Sampling Point: WA021a2W

Tree Stratum	Plot Size ( 30 ft )	Absolute % Cover	Dominant Species	Indicator Status																	
1	<i>Populus tremuloides</i>	80	Y	FAC	<b>50/20 Thresholds</b> <table style="width:100%; border:none;"> <tr> <td></td> <td style="text-align:right;">20%</td> <td style="text-align:right;">50%</td> </tr> <tr> <td>Tree Stratum</td> <td style="text-align:right;">16</td> <td style="text-align:right;">40</td> </tr> <tr> <td>Sapling/Shrub Stratum</td> <td style="text-align:right;">3</td> <td style="text-align:right;">8</td> </tr> <tr> <td>Herb Stratum</td> <td style="text-align:right;">20</td> <td style="text-align:right;">50</td> </tr> <tr> <td>Woody Vine Stratum</td> <td style="text-align:right;">0</td> <td style="text-align:right;">0</td> </tr> </table>			20%	50%	Tree Stratum	16	40	Sapling/Shrub Stratum	3	8	Herb Stratum	20	50	Woody Vine Stratum	0	0
	20%	50%																			
Tree Stratum	16	40																			
Sapling/Shrub Stratum	3	8																			
Herb Stratum	20	50																			
Woody Vine Stratum	0	0																			
2																					
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10		80	= Total Cover		<b>Dominance Test Worksheet</b> Number of Dominant Species that are OBL, FACW, or FAC: <u>4</u> (A) Total Number of Dominant Species Across all Strata: <u>4</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>100.00%</u> (A/B)																
Sapling/Shrub Stratum	Plot Size ( 15 ft )	Absolute % Cover	Dominant Species	Indicator Status																	
1	<i>Alnus incana</i>	10	Y	FACW	<b>Prevalence Index Worksheet</b> Total % Cover of: OBL species $\frac{100}{100} \times 1 = \frac{100}{100}$ FACW species $\frac{15}{15} \times 2 = \frac{30}{15}$ FAC species $\frac{80}{80} \times 3 = \frac{240}{80}$ FACU species $\frac{0}{0} \times 4 = \frac{0}{0}$ UPL species $\frac{0}{0} \times 5 = \frac{0}{0}$ Column totals <u>195</u> (A) <u>370</u> (B) Prevalence Index = B/A = <u>1.90</u>																
2	<i>Salix bebbiana</i>	5	Y	FACW																	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10		15	= Total Cover																		
Herb Stratum	Plot Size ( 5 ft )	Absolute % Cover	Dominant Species	Indicator Status																	
1	<i>Calamagrostis canadensis</i>	90	Y	OBL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> Rapid test for hydrophytic vegetation <input checked="" type="checkbox"/> Dominance test is >50% <input checked="" type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic																
2	<i>Carex lacustris</i>	10	N	OBL																	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					
13																					
14																					
15		100	= Total Cover																		
Woody Vine Stratum	Plot Size ( )	Absolute % Cover	Dominant Species	Indicator Status																	
1					<b>Definitions of Vegetation Strata:</b> <b>Tree</b> - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> - Woody plants less than 3 in. DBH and greater than 3.28 ft (1 m) tall. <b>Herb</b> - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.																
2																					
3																					
4																					
5																					
10		0	= Total Cover		<b>Hydrophytic vegetation present?</b> <u>Y</u>																

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

**SOIL**

**Sampling Point:** WA021a2W

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*	Loc**		
0-2	10YR 2/1	0					Loam	
2-10	10YR 4/2	95	10YR 4/6	5	C	M	Sand	
10-20	10YR 5/2	90	10YR 4/6	10	C	M	Sand	

\*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains

\*\*Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histisol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

\*Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

**Hydric soil present?**   Y  

Remarks: