

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: Sandpiper City/County: Wadena Sampling Date: 09/13/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: WA017b6U
 Investigator(s): DPT Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Rise Local relief (concave, convex, none): Convex/Convex
 Slope (%): 2 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> N </u> Hydric soil present? <u> N </u> Indicators of wetland hydrology present? <u> N </u>	<p align="center">Is the sampled area within a wetland? <u> N </u></p> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

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 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 type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input 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 _____ No <u> X </u> Depth (inches): _____ Saturation present? Yes _____ No <u> X </u> Depth (inches): _____ (includes capillary fringe)	<p align="center">Indicators of wetland hydrology present? <u> N </u></p>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

VEGETATION - Use scientific names of plants

Sampling Point: WA017b6U

Tree Stratum	Plot Size (30 ft)	Absolute % Cover	Dominant Species	Indicator Status																
1	<i>Populus tremuloides</i>	70	Y	FAC	50/20 Thresholds <table style="width:100%; border-collapse: collapse;"> <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;">18</td> <td style="text-align: right;">45</td> </tr> <tr> <td>Sapling/Shrub Stratum</td> <td style="text-align: right;">8</td> <td style="text-align: right;">20</td> </tr> <tr> <td>Herb Stratum</td> <td style="text-align: right;">16</td> <td style="text-align: right;">40</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	18	45	Sapling/Shrub Stratum	8	20	Herb Stratum	16	40	Woody Vine Stratum	0	0
	20%	50%																		
Tree Stratum	18	45																		
Sapling/Shrub Stratum	8	20																		
Herb Stratum	16	40																		
Woody Vine Stratum	0	0																		
2	<i>Pinus resinosa</i>	20	Y	FACU																
3																				
4																				
5																				
6					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>6</u> (B) Percent of Dominant Species that are OBL, FACW, or FAC: <u>33.33%</u> (A/B)															
7																				
8																				
9																				
10																				
		<u>90</u>	= Total Cover																	
Sapling/Shrub Stratum	Plot Size (15 ft)	Absolute % Cover	Dominant Species	Indicator Status																
1	<i>Corylus cornuta</i>	30	Y	FACU	Prevalence Index Worksheet Total % Cover of: OBL species <u>0</u> x 1 = <u>0</u> FACW species <u>0</u> x 2 = <u>0</u> FAC species <u>80</u> x 3 = <u>240</u> FACU species <u>130</u> x 4 = <u>520</u> UPL species <u>0</u> x 5 = <u>0</u> Column totals <u>210</u> (A) <u>760</u> (B) Prevalence Index = B/A = <u>3.62</u>															
2	<i>Populus tremuloides</i>	10	Y	FAC																
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
		<u>40</u>	= Total Cover																	
Herb Stratum	Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status																
1	<i>Andropogon gerardii</i>	60	Y	FACU	Hydrophytic Vegetation Indicators: <input type="checkbox"/> Rapid test for hydrophytic vegetation <input type="checkbox"/> Dominance test is >50% <input type="checkbox"/> Prevalence index is ≤3.0* Morphological adaptations* (provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic hydrophytic vegetation* (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic															
2	<i>Aralia nudicaulis</i>	20	Y	FACU																
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				
13																				
14																				
15																				
		<u>80</u>	= Total Cover																	
Woody Vine Stratum	Plot Size ()	Absolute % Cover	Dominant Species	Indicator Status																
1					Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than 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																	
Remarks: (Include photo numbers here or on a separate sheet)					Hydrophytic vegetation present? <u>N</u>															

SOIL

Sampling Point: WA017b6U

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**		
4	10 YR 3/2	100					Loamy sand	
14	10 YR 3/3	100					Sand	
20	10 YR 4/4	100					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? N

Remarks: