

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Wadena Sampling Date: 9/2/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: WA001a1W
 Investigator(s): BEH/RAJ Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Side slope Local relief (concave, convex, none) LC
 Slope (%): 8 - 15% Lat.: 46.80210983 Long.: -94.9257472 Datum: _____
 Soil Map Unit Name: 458C 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? ☒
 (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>	Is the sampled area within a wetland? <u>N</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) The upland sample point is located in a fire-dependent forest, upslope from a shallow marsh depression.	

HYDROLOGY

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

VEGETATION - Use scientific names of plants

Sampling Point:

WA001a1W

Tree Stratum					Plot Size (30 ft)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Populus tremuloides</i>					25	Y	FAC	
2	<i>Quercus macrocarpa</i>					15	Y	FACU	
3									
4									
5									
6									
7									
8									
9									
10									
						40	= Total Cover		

Sapling/Shrub Stratum					Plot Size (15 ft)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Quercus macrocarpa</i>					5	Y	FACU	
2									
3									
4									
5									
6									
7									
8									
9									
10									
						5	= Total Cover		

Herb Stratum					Plot Size (5 ft)		Absolute % Cover	Dominant Species	Indicator Status
1	<i>Poa pratensis</i>					45	Y	FACU	
2	<i>Rubus idaeus</i>					35	Y	FAC	
3	<i>Bromus inermis</i>					20	N	UPL	
4	<i>Sonchus oleraceus</i>					5	N	FACU	
5	<i>Parthenocissus vitacea</i>					5	N	FACU	
6	<i>Solidago gigantea</i>					5	N	FACW	
7									
8									
9									
10									
11									
12									
13									
14									
15									
						115	= Total Cover		

Woody Vine Stratum					Plot Size (30 ft)		Absolute % Cover	Dominant Species	Indicator Status
1									
2									
3									
4									
5									
						0	= Total Cover		

Remarks: (Include photo numbers here or on a separate sheet)
 The canopy is quaking aspen and bur oak; scattered bur oak saplings are present in the shrub layer. The ground layer is dominated by Kentucky bluegrass and wild red raspberry.

50/20 Thresholds

	20%	50%
Tree Stratum	8	20
Sapling/Shrub Stratum	1	3
Herb Stratum	23	58
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across all Strata: 5 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 40.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	<u>0</u>	x 1 =	<u>0</u>
FACW species	<u>5</u>	x 2 =	<u>10</u>
FAC species	<u>60</u>	x 3 =	<u>180</u>
FACU species	<u>75</u>	x 4 =	<u>300</u>
UPL species	<u>20</u>	x 5 =	<u>100</u>
Column totals	<u>160</u>	(A)	<u>590</u> (B)
Prevalence Index = B/A =		<u>3.69</u>	

Hydrophytic Vegetation Indicators:

☐ Rapid test for hydrophytic vegetation

☐ Dominance test is >50%

☐ Prevalence index is $\leq 3.0^*$

☐ 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

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.

Hydrophytic vegetation present? N

SOIL
Sampling Point:

WA001a1W

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

Depth (In.)	Matrix			Redox Features				Texture	Remarks
	Color (moist)		%	Color (moist)	%	Type*	Loc**		
0-3	Hue_10YR	2/1	100					FSL	
3-7	Hue_10YR	2/1	65					FSL	
3-7	Hue_10YR	4/2	35					FSL	
7-19	Hue_10YR	2/2	100					FSL	
19-21	Hue_10YR	3/2	100					LFS	

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

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

Hydric Soil Indicators:

- ☐ Histosol (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

- ☐ 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:

Soil is multiple layers of dark fine sandy loam underlain by loamy fine sand; the profile does not meet any hydric soil indicators.