

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 6/7/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CL013_2001W
 Investigator(s): BEH/BCS Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CC
 Slope (%): 0 - 2% Lat.: 47.71325995 Long.: -95.49218883 Datum: _____
 Soil Map Unit Name: 582 NWI Classification: PEMAd
 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>Y</u> Hydric soil present? <u>Y</u> Indicators of wetland hydrology present? <u>Y</u>	Is the sampled area within a wetland? <u>Y</u> If yes, optional wetland site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) Wetland is a small depression surrounded by an alfalfa field. Slough sedge, stinging nettle, and hybrid cattail cover the majority of the depression. Throughout, the soil is saturated at the surface and scattered pockets of standing water are present.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) ☐ Surface Water (A1) ☐ Water-Stained Leaves (B9) ☒ High Water Table (A2) ☐ Aquatic Fauna (B13) ☒ Saturation (A3) ☐ Marl Deposits (B15) ☐ Water Marks (B1) ☐ Hydrogen Sulfide Odor (C1) ☐ Sediment Deposits (B2) ☐ Oxidized Rhizospheres on ☐ Drift Deposits (B3) ☐ Living Roots (C3) ☐ Algal Mat or Crust (B4) ☐ Presence of Reduced Iron (C4) ☐ Iron Deposits (B5) ☐ Recent Iron Reduction in Tilled ☐ Inundation Visible on Aerial Soils (C6) Imagery (B7) ☐ Thin Muck Surface (C7) ☐ Sparsely Vegetated Concave ☐ Other (Explain in Remarks) Surface (B8)		Secondary Indicators (minimum of two required) ☐ 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 ☐ Water table present? Yes ☒ Saturation present? Yes ☒ (includes capillary fringe)	Depth (inches): _____ Depth (inches): <u>2</u> Depth (inches): <u>0</u>	Indicators of wetland hydrology present? <u>Y</u>
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: A high water table is present 2" below the surface and the soil is saturated at the surface.		

VEGETATION - Use scientific names of plants
Sampling Point:

CL013_20011W

Tree Stratum			Plot Size (30 ft)			Absolute % Cover	Dominant Species	Indicator Status
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
						0	= Total Cover	

Sapling/Shrub Stratum			Plot Size (15 ft)			Absolute % Cover	Dominant Species	Indicator Status
1								
2								
3								
4								
5								
6								
7								
8								
9								
10								
						0	= Total Cover	

Herb Stratum			Plot Size (5 ft)			Absolute % Cover	Dominant Species	Indicator Status
1		<i>Carex atherodes</i>				55	Y	OBL
2		<i>Urtica dioica</i>				15	Y	FAC
3		<i>Typha X glauca</i>				5	N	OBL
4								
5								
6								
7								
8								
9								
10								
11								
12								
13								
14								
15								
						75	= Total Cover	

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

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	0	0
Herb Stratum	15	38
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: 2 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 100.00% (A/B)

Prevalence Index Worksheet

Total % Cover of:

OBL species	60	x 1 =	60
FACW species	0	x 2 =	0
FAC species	15	x 3 =	45
FACU species	0	x 4 =	0
UPL species	0	x 5 =	0
Column totals	75	(A)	105 (B)
Prevalence Index = B/A =		<u>1.40</u>	

Hydrophytic Vegetation Indicators:

☒ Rapid test for hydrophytic vegetation

☒ Dominance test is >50%

☒ 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

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? Y

Remarks: (Include photo numbers here or on a separate sheet)
 Wetland is dominated by slough sedge, stinging nettle, and sporadic hybrid cattail.

SOIL

Sampling Point:

CL013 200I1W

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

[illegible]

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

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:

Soil is a muck underlain by silty clay with redox concentrations in the bottom of the sampled profile. The soil meets hydric indicators A2- Histic Epipedon and A3- Black Histic.