

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 5/30/2014
 Applicant/Owner: Enbridge State: MN Sampling Point: CRC5043_200a3W
 Investigator(s): BJC/DGL Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): CL
 Slope (%): 0 - 2% Lat.: 46.589433 Long.: -92.889148 Datum: _____
 Soil Map Unit Name: 21C 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>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.) The wetland is located towards the base of a hill near a hayed field.	

HYDROLOGY

Primary Indicators (minimum of one is required; check all that apply) ☐ 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)		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 ☐ Depth (inches): _____ Water table present? Yes ☐ Depth (inches): _____ Saturation present? Yes ☐ Depth (inches): _____ (includes capillary fringe)	Indicators of wetland hydrology present? <u>Y</u>	
Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The wetland is a very large complex, with many changes in hydrology.		

VEGETATION - Use scientific names of plants
Sampling Point:

CRC5043_200a3W

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	<i>Alnus incana</i>		70	Y	FACW
2	<i>Populus balsamifera</i>		5	N	FACW
3					
4					
5					
6					
7					
8					
9					
10					
			75 = Total Cover		

Herb Stratum		Plot Size (5 ft)	Absolute % Cover	Dominant Species	Indicator Status
1	<i>Solidago nemoralis</i>		30	Y	FACW
2	<i>Rubus idaeus</i>		30	Y	FAC
3	<i>Sparganium angustifolium</i>		10	N	FACW
4	<i>Desmodium illinoense</i>		10	N	FACU
5	<i>Oxalis corniculata</i>		10	N	FACW
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
			90 = 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 wetland is dominated by speckled alder.

50/20 Thresholds

	20%	50%
Tree Stratum	0	0
Sapling/Shrub Stratum	15	38
Herb Stratum	18	45
Woody Vine Stratum	0	0

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across all Strata: 3 (B)

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

Prevalence Index Worksheet

Total % Cover of:

OBL species	0	x 1 =	0
FACW species	125	x 2 =	250
FAC species	30	x 3 =	90
FACU species	10	x 4 =	40
UPL species	0	x 5 =	0
Column totals	165	(A)	380 (B)

Prevalence Index = B/A = 2.30

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

SOIL

Sampling Point: CRC5043_200a3W

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

The soil meets the F6 and F21 indicator for hydric soils.