

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 2015-07-11
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CLC5004_200p1W
 Investigator(s): BJC/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope (%): 0-2%
 Subregion (LRR or MLRA): LRR K Latitude: 47.6673602220... Longitude: -95.40344266... Datum: Minnesota State ...
 Soil Map Unit Name: 718C, Naytahwaush loam, 8 to 15 percent slopes NWI Classification: PEMC

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	<u>Yes</u>	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID: _____
Hydric Soil Present?	<u>Yes</u>	
Wetland Hydrology Present?	<u>Yes</u>	
Remarks: (Explain alternative procedures here or in a separate report.) The wetland is a shallow marsh dominated by water plantain, hybrid cattail, and reed canary grass. It is located in a depression within a cattle pasture.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>yes</u> Surface Water (A1)	<u> </u> Water-Stained Leaves (B9)	<u> </u> Surface Soil Cracks (B6)
<u>yes</u> High Water Table (A2)	<u> </u> Aquatic Fauna (B13)	<u> </u> Drainage Patterns (B10)
<u>yes</u> Saturation (A3)	<u> </u> Marl Deposits (B15)	<u> </u> Moss Trim Lines (B16)
<u> </u> Water Marks (B1)	<u> </u> Hydrogen Sulfide Odor (C1)	<u> </u> Dry-Season Water Table (C2)
<u> </u> Sediment Deposits (B2)	<u> </u> Oxidized Rhizospheres on Living Roots (C3)	<u> </u> Crayfish Burrows (C8)
<u> </u> Drift Deposits (B3)	<u> </u> Presence of Reduced Iron (C4)	<u> </u> Saturation Visible on Aerial Imagery (C9)
<u> </u> Algal Mat or Crust (B4)	<u> </u> Recent Iron Reduction in Tilled Soils (C6)	<u> </u> Stunted/Stressed Plants (D1)
<u> </u> Iron Deposits (B5)	<u> </u> Thin Muck Surface (C7)	<u>yes</u> Geomorphic Position (D2)
<u> </u> Inundation Visible on Aerial Imagery (B7)	<u> </u> Other (Explain in Remarks)	<u> </u> Shallow Aquitard (D3)
<u> </u> Sparsely Vegetated Concave Surface (B8)		<u> </u> Microtopographic Relief (D4)
		<u>yes</u> FAC-Neutral Test (D5)
Field Observations: Surface Water Present? <u>Yes</u> Depth (inches) <u>3</u> Water Table Present? <u>Yes</u> Depth (inches) <u>0</u> Saturation Present? <u>Yes</u> Depth (inches) <u>0</u> (includes capillary fringe)		Wetland Hydrology Present? <u>Yes</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: Surface water is present throughout the wetland.		

Sampling Point: CLC5004_...

				Dominance Test worksheet:	
Tree Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Number of Dominant Species
1. _____		_____	_____	_____	That Are OBL, FACW, or FAC: ³ _____ (A)
2. _____		_____	_____	_____	Total Number of Dominant ³
3. _____		_____	_____	_____	Species Across All Strata: _____ (B)
4. _____		_____	_____	_____	Percent of Dominant Species ¹⁰⁰
5. _____		_____	_____	_____	That Are OBL, FACW, or FAC: _____ (A/B)
6. _____		_____	_____	_____	
7. _____		_____	_____	_____	
		0 _____ = Total Cover			
Sapling/Shrub Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. _____		_____	_____	_____	Total % Cover of: _____ Multiply by: _____
2. _____		_____	_____	_____	OBL species <u>90.00</u> x 1 <u>90</u>
3. _____		_____	_____	_____	FACW species <u>25.00</u> x 2 <u>50</u>
4. _____		_____	_____	_____	FACU species <u>0.00</u> x 3 <u>0</u>
5. _____		_____	_____	_____	UPL species <u>0.00</u> x 4 <u>0</u>
6. _____		_____	_____	_____	Column Totals <u>115</u> (A) <u>140</u> (B)
7. _____		_____	_____	_____	Prevalence Index = B/A = <u>1.2173913...</u>
		0 _____ = Total Cover			
Herb Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. Typha X glauca		40.00	Yes	OBL	yes 1 - Rapid Test for Hydrophytic Vegetation
2. Alisma triviale		25.00	Yes	OBL	yes 2 - Dominance Test is > 50%
3. Phalaris arundinacea		25.00	Yes	FACW	yes 3 - Prevalence Index is ≤ 3.0 ¹
4. Persicaria amphibia		10.00	No	OBL	_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
5. Carex stipata		5.00	No	OBL	Problematic Hydrophytic Vegetation ¹ (Explain)
6. Carex lacustris		5.00	No	OBL	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. Scirpus pallidus		5.00	No	OBL	
8. _____		_____	_____	_____	Definitions of Vegetation Strata:
9. _____		_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
10. _____		_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
11. _____		_____	_____	_____	Herb - All herbaeaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12. _____		_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
		115 _____ = Total Cover			
Woody Vine Stratum		Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. _____		_____	_____	_____	_____
2. _____		_____	_____	_____	
3. _____		_____	_____	_____	
4. _____		_____	_____	_____	
		0 _____ =Total Cover			
Remarks: (include photo numbers here or on a separate sheet.)					
The wetland sample point is dominated by hybrid cattail, reed canary grass, and water plantain.					

SOIL

Sampling Point: CLC5004_...

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil ³ :
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
☒ Histic Epipedon (A2)	☐ Thin Dark Surface (S9) (LRR R, MLRA 149B)	☐ Coast Prairie Redox (A16)(LRR K, L, R)
☒ Black Histic (A3)	☐ Loamy Mucky Mineral (F1) (LRR K, L)	☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
☐ Hydrogen Sulfide (A4)	☐ Loamy Gleyed Matrix (F2)	☐ Dark Surface (S7) (LRR K, M)
☐ Stratified Layers (A5)	☐ Depleted Matrix (F3)	☐ Polyvalue Below Surface (S8) (LRR K, L)
☐ Depleted Below Dark Surface (A11)	☐ Redox Dark Surface (F6)	☐ Thin Dark Surface (S9) (LRR K, L)
☐ Thick Dark Surface (A12)	☐ Depleted Dark Surface (F7)	☐ Iron-Manganese Masses (F12) (LRR K, L, R)
☐ Sandy Mucky Mineral (S1)	☐ Redox Depressions (F8)	☐ Piedmont Floodplain Soils (F19) (MLRA 149B)
☐ Sandy Gleyed Matrix (S4)		☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
☐ Sandy Redox (S5)		☐ Red Parent Material (F21)
☐ Stripped Matrix (S6)		☐ Very Shallow Dark Surface (TF12)
☐ Dark Surface (S7) (LRR R, MLRA 149B)		☐ Other (explain in remarks)
Restrictive Layer (if observed): ☐	Hydric Soil Present? Yes ☐	
Remarks:		
A dark muck surface layer was observed over a clay layer of the same color.		