

WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Carlton Sampling Date: 2015-06-25
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CRR51010_640c1W
 Investigator(s): ACM/LEB Section, Township, Range: _____
 Landform (hillslope, terrace, etc.): depression Local Relief (concave, convex, none): Conca... Slope (%): 3-7
 Subregion (LRR or MLRA): _____ Latitude: 46.359130 Longitude: -92.196726 Datum: Minnesota State ...
 Soil Map Unit Name: 976C NWI Classification: _____

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 sedge meadow surrounding a shallow excavated pond. The vegetation is dominated by cattails and bulrushes.		

HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
Primary Indicators (minimum of one is required; check all that apply)		
<u>_____</u> Surface Water (A1)	<u>_____</u> Water-Stained Leaves (B9)	<u>_____</u> Surface Soil Cracks (B6)
<u>_____</u> High Water Table (A2)	<u>_____</u> Aquatic Fauna (B13)	<u>yes</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>No</u> Depth (inches) _____ Water Table Present? <u>No</u> Depth (inches) _____ Saturation Present? <u>Yes</u> Depth (inches) <u>10</u> (includes capillary fringe)		Wetland Hydrology Present? <u>Yes</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: The soil is saturated at 10 inches and the wetland surrounds a shallow pond.		

VEGETATION - Use scientific names of plants.

 Sampling Point: CRR51010...

	Absolute % Cover	Dominant Species?	Indicator Status	
Tree Stratum (Plot Size: _____)				Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species
2. _____	_____	_____	_____	That Are OBL, FACW, or FAC: ³ _____ (A)
3. _____	_____	_____	_____	Total Number of Dominant
4. _____	_____	_____	_____	³
5. _____	_____	_____	_____	Species Across All Strata: _____ (B)
6. _____	_____	_____	_____	Percent of Dominant Species
7. _____	_____	_____	_____	That Are OBL, FACW, or FAC: ¹⁰⁰ _____ (A/B)
	0 = Total Cover			Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot Size: _____)				Total % Cover of: Multiply by:
1. _____	_____	_____	_____	OBL species 65.00 x 1 <u>65</u>
2. _____	_____	_____	_____	FACW species 0.00 x 2 <u>0</u>
3. _____	_____	_____	_____	FACU species 20.00 x 3 <u>56</u>
4. _____	_____	_____	_____	UPL species 0.00 x 4 <u>0</u>
5. _____	_____	_____	_____	Column Totals <u>99</u> (A) <u>181</u> (B)
6. _____	_____	_____	_____	Prevalence Index = B/A = <u>1.8282828...</u>
7. _____	0 = Total Cover			Hydrophytic Vegetation Indicators:
				_____ 1 - Rapid Test for Hydrophytic Vegetation
				<u>yes</u> 2 - Dominance Test is > 50%
				<u>yes</u> 3 - Prevalence Index is ≤ 3.0 ¹
				_____ 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
Herb Stratum (Plot Size: <u>5 ft</u> _____)				Problematic Hydrophytic Vegetation ¹ (Explain)
1. <u>Scirpus atrovirens</u>	<u>30.00</u>	<u>Yes</u>	<u>OBL</u>	¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Scirpus microcarpus</u>	<u>20.00</u>	<u>Yes</u>	<u>OBL</u>	
3. <u>Alopecurus pratensis</u>	<u>20.00</u>	<u>Yes</u>	<u>FAC</u>	
4. <u>Typha angustifolia</u>	<u>10.00</u>	<u>No</u>	<u>OBL</u>	
5. <u>Lotus corniculatus</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
6. <u>Solidago canadensis</u>	<u>5.00</u>	<u>No</u>	<u>FACU</u>	
7. <u>Glyceria grandis</u>	<u>5.00</u>	<u>No</u>	<u>OBL</u>	
8. <u>Tanacetum vulgare</u>	<u>2.00</u>	<u>No</u>	<u>FACU</u>	
9. <u>Cirsium arvense</u>	<u>2.00</u>	<u>No</u>	<u>FACU</u>	
10. _____	_____	_____	_____	Definitions of Vegetation Strata:
11. _____	_____	_____	_____	Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
12. _____	_____	_____	_____	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
	99 = Total Cover			Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
Woody Vine Stratum (Plot Size: _____)				Woody vines - All woody vines greater than 3.28 ft in height.
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	0 = Total Cover			
Remarks: (include photo numbers here or on a separate sheet.)				
The sample point is dominated by green bulrush, small-fruit bulrush, and meadow foxtail.				

SOIL

Sampling Point: CRR51010...

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:		
The soils are clay over sandy clay with redox concentrations throughout the profile. Soils meet hydric soil indicator F3, Depleted Matrix.		