

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 6/5/2014  
 Applicant/Owner: Enbridge State: MN Sampling Point: CL013\_200d3W  
 Investigator(s): BEH/BCS Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CL  
 Slope (%): 0 - 2% Lat.: 47.71058155 Long.: -95.48755085 Datum: \_\_\_\_\_  
 Soil Map Unit Name: 544 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><br>Hydric soil present? <u>Y</u><br>Indicators of wetland hydrology present? <u>Y</u>                                                                                                                                                     | <b>Is the sampled area within a wetland?</b> <u>Y</u><br><br>If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.)<br>Wetland is a shrubby area dominated by willow species, primarily meadow willow. Standing water dominated by lake sedge is interspersed throughout the area with drier rises that contain willow clumps. |                                                                                                      |

### HYDROLOGY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply)<br><input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9)<br><input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13)<br><input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15)<br><input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1)<br><input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on<br><input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Living Roots (C3)<br><input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Presence of Reduced Iron (C4)<br><input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Recent Iron Reduction in Tilled<br><input type="checkbox"/> Inundation Visible on Aerial <input type="checkbox"/> Soils (C6)<br>Imagery (B7) <input type="checkbox"/> Thin Muck Surface (C7)<br><input type="checkbox"/> Sparsely Vegetated Concave <input type="checkbox"/> Other (Explain in Remarks)<br>Surface (B8) |                                                                                  | Secondary Indicators (minimum of two required)<br><input type="checkbox"/> Surface Soil Cracks (B6)<br><input type="checkbox"/> Drainage Patterns (B10)<br><input type="checkbox"/> Moss Trim Lines (B16)<br><input type="checkbox"/> Dry-Season Water Table (C2)<br><input type="checkbox"/> Crayfish Burrows (C8)<br><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)<br><input type="checkbox"/> Stunted or Stressed Plants (D1)<br><input checked="" type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input checked="" type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations:<br>Surface water present? Yes <input checked="" type="checkbox"/><br>Water table present? Yes <input checked="" type="checkbox"/><br>Saturation present? Yes <input checked="" type="checkbox"/><br>(includes capillary fringe)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Depth (inches): <u>2</u><br>Depth (inches): <u>0</u><br>Depth (inches): <u>0</u> | <b>Indicators of wetland hydrology present?</b> <u>Y</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| Remarks:<br>Standing water 2" deep is present at the sample point, water becomes deeper towards the center of the wetland.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |

**VEGETATION - Use scientific names of plants**
**Sampling Point:**

CL013\_200d3W

| 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                    |  |  |  |                     |  |                  |                  |                  |
|                       |  |  |  |                     |  | 43               | = Total Cover    |                  |

  

| Herb Stratum |  |  |  | Plot Size ( 5 ft ) |  | Absolute % Cover | Dominant Species | Indicator Status |
|--------------|--|--|--|--------------------|--|------------------|------------------|------------------|
| 1            |  |  |  |                    |  |                  |                  |                  |
| 2            |  |  |  |                    |  |                  |                  |                  |
| 3            |  |  |  |                    |  |                  |                  |                  |
| 4            |  |  |  |                    |  |                  |                  |                  |
| 5            |  |  |  |                    |  |                  |                  |                  |
| 6            |  |  |  |                    |  |                  |                  |                  |
| 7            |  |  |  |                    |  |                  |                  |                  |
| 8            |  |  |  |                    |  |                  |                  |                  |
| 9            |  |  |  |                    |  |                  |                  |                  |
| 10           |  |  |  |                    |  |                  |                  |                  |
| 11           |  |  |  |                    |  |                  |                  |                  |
| 12           |  |  |  |                    |  |                  |                  |                  |
| 13           |  |  |  |                    |  |                  |                  |                  |
| 14           |  |  |  |                    |  |                  |                  |                  |
| 15           |  |  |  |                    |  |                  |                  |                  |
|              |  |  |  |                    |  | 60               | = 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 | 9   | 22  |
| Herb Stratum          | 12  | 30  |
| 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              | 50  | x 1 =       | 50      |
| FACW species             | 53  | x 2 =       | 106     |
| FAC species              | 0   | x 3 =       | 0       |
| FACU species             | 0   | x 4 =       | 0       |
| UPL species              | 0   | x 5 =       | 0       |
| Column totals            | 103 | (A)         | 156 (B) |
| Prevalence Index = B/A = |     | <u>1.51</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 is dominated by meadow willow and other willow species in the shrub layer. The ground cover consists of lake sedge with water horsetail and water smartweed.

## SOIL

**Sampling Point:**

CL013 200d3W

**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:

- |                                                                 |                                                     |
|-----------------------------------------------------------------|-----------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                          | <input type="checkbox"/> Polyvalue Below Surface    |
| <input checked="" type="checkbox"/> Histic Epipedon (A2)        | (S8) ( <b>LRR R, MLRA 149B</b> )                    |
| <input checked="" type="checkbox"/> Black Histic (A3)           | <input type="checkbox"/> Thin Dark Surface (S9)     |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                  | ( <b>LRR R, MLRA 149B</b> )                         |
| <input type="checkbox"/> Stratified Layers (A5)                 | <input type="checkbox"/> Loamy Mucky Mineral (F1)   |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)      | ( <b>LRR K, L</b> )                                 |
| <input type="checkbox"/> Thick Dark Surface (A12)               | <input type="checkbox"/> Loamy Gleyed Matrix (F2)   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)               | <input type="checkbox"/> Depleted Matrix (F3)       |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)               | <input type="checkbox"/> Redox Dark Surface (F6)    |
| <input type="checkbox"/> Sandy Redox (S5)                       | <input type="checkbox"/> Depleted Dark Surface (F7) |
| <input type="checkbox"/> Stripped Matrix (S6)                   | <input type="checkbox"/> Redox Depressions (F8)     |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA</b> |                                                     |

### 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 is mucky peat underlain by two clay layers, the lowest layer of which is gleyed. The profile meets hydric indicators A2-Histic Epipedon and A3- Black Histic.