

# WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Clearwater Sampling Date: 2015-07-10  
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: CLC5004\_200h1W  
 Investigator(s): BEH/KAT Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K Latitude: 47.6719694 Longitude: -95.3941905 Datum: Minnesota State ...  
 Soil Map Unit Name: 718C 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<br>within a Wetland?<br>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.)<br>The wetland consists of a wet meadow located within pastureland and dominated by reed canary grass. |            |                                                                                     |

## HYDROLOGY

| Wetland Hydrology Indicators:                                                                                          |                                                                     | Secondary Indicators (minimum of two required)                     |  |
|------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|--------------------------------------------------------------------|--|
| Primary Indicators (minimum of one is required; check all that apply)                                                  |                                                                     |                                                                    |  |
| <input type="checkbox"/> Surface Water (A1)                                                                            | <input type="checkbox"/> Water-Stained Leaves (B9)                  | <input type="checkbox"/> Surface Soil Cracks (B6)                  |  |
| <input type="checkbox"/> High Water Table (A2)                                                                         | <input type="checkbox"/> Aquatic Fauna (B13)                        | <input type="checkbox"/> Drainage Patterns (B10)                   |  |
| <input type="checkbox"/> Saturation (A3)                                                                               | <input type="checkbox"/> Marl Deposits (B15)                        | <input type="checkbox"/> Moss Trim Lines (B16)                     |  |
| <input type="checkbox"/> Water Marks (B1)                                                                              | <input type="checkbox"/> Hydrogen Sulfide Odor (C1)                 | <input type="checkbox"/> Dry-Season Water Table (C2)               |  |
| <input type="checkbox"/> Sediment Deposits (B2)                                                                        | <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) | <input type="checkbox"/> Crayfish Burrows (C8)                     |  |
| <input type="checkbox"/> Drift Deposits (B3)                                                                           | <input type="checkbox"/> Presence of Reduced Iron (C4)              | <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) |  |
| <input type="checkbox"/> Algal Mat or Crust (B4)                                                                       | <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) | <input type="checkbox"/> Stunted/Stressed Plants (D1)              |  |
| <input type="checkbox"/> Iron Deposits (B5)                                                                            | <input type="checkbox"/> Thin Muck Surface (C7)                     | <input checked="" type="checkbox"/> Geomorphic Position (D2)       |  |
| <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)                                                     | <input type="checkbox"/> Other (Explain in Remarks)                 | <input type="checkbox"/> Shallow Aquitard (D3)                     |  |
| <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)                                                       |                                                                     | <input type="checkbox"/> Microtopographic Relief (D4)              |  |
|                                                                                                                        |                                                                     | <input checked="" type="checkbox"/> FAC-Neutral Test (D5)          |  |
| Field Observations:                                                                                                    |                                                                     |                                                                    |  |
| Surface Water Present?                                                                                                 | <u>No</u> Depth (inches) _____                                      | Wetland Hydrology Present? <u>Yes</u>                              |  |
| Water Table Present?                                                                                                   | <u>Yes</u> Depth (inches) <u>20</u>                                 |                                                                    |  |
| Saturation Present?<br>(includes capillary fringe)                                                                     | <u>Yes</u> Depth (inches) <u>18</u>                                 |                                                                    |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:             |                                                                     |                                                                    |  |
| Remarks:<br>The sample point is in a depressional area that collects water and vegetation passes the FAC-Neutral test. |                                                                     |                                                                    |  |

Sampling Point: CLC5004\_...

|                                                                      |  | Absolute | Dominant | Indicator | Dominance Test worksheet:                                                                                      |
|----------------------------------------------------------------------|--|----------|----------|-----------|----------------------------------------------------------------------------------------------------------------|
|                                                                      |  | % Cover  | Species? | Status    |                                                                                                                |
| <u>Tree Stratum</u> (Plot Size: _____)                               |  |          |          |           | Number of Dominant Species                                                                                     |
| 1. _____                                                             |  |          |          |           | That Are OBL, FACW, or FAC: <sup>1</sup> _____ (A)                                                             |
| 2. _____                                                             |  |          |          |           | Total Number of Dominant                                                                                       |
| 3. _____                                                             |  |          |          |           | <sup>1</sup> _____ (B)                                                                                         |
| 4. _____                                                             |  |          |          |           | Percent of Dominant Species                                                                                    |
| 5. _____                                                             |  |          |          |           | That Are OBL, FACW, or FAC: <sup>100</sup> _____ (A/B)                                                         |
| 6. _____                                                             |  |          |          |           | <b>Prevalence Index worksheet:</b>                                                                             |
| 7. _____                                                             |  |          |          |           |                                                                                                                |
| 0 _____ = Total Cover                                                |  |          |          |           | Total % Cover of: _____ Multiply by: _____                                                                     |
| <u>Sapling/Shrub Stratum</u> (Plot Size: _____)                      |  |          |          |           | OBL species <u>20.00</u> x 1 <u>20</u>                                                                         |
| 1. _____                                                             |  |          |          |           | FACW species <u>70.00</u> x 2 <u>140</u>                                                                       |
| 2. _____                                                             |  |          |          |           | FACU species <u>5.00</u> x 3 <u>20</u>                                                                         |
| 3. _____                                                             |  |          |          |           | UPL species <u>0.00</u> x 4 <u>0</u>                                                                           |
| 4. _____                                                             |  |          |          |           | Column Totals <u>100</u> (A) <u>195</u> (B)                                                                    |
| 5. _____                                                             |  |          |          |           | Prevalence Index = B/A = <u>1.95</u>                                                                           |
| 6. _____                                                             |  |          |          |           | <b>Hydrophytic Vegetation Indicators:</b>                                                                      |
| 7. _____                                                             |  |          |          |           |                                                                                                                |
| 0 _____ = Total Cover                                                |  |          |          |           | <u>yes</u> 1 - Rapid Test for Hydrophytic Vegetation                                                           |
| <u>Herb Stratum</u> (Plot Size: <sup>5'</sup> _____)                 |  |          |          |           | <u>yes</u> 2 - Dominance Test is > 50%                                                                         |
| 1. <u>Phalaris arundinacea</u>                                       |  |          |          |           | <u>yes</u> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>                                                          |
| 2. <u>Scirpus cyperinus</u>                                          |  |          |          |           | _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)   |
| 3. <u>Agrostis gigantea</u>                                          |  |          |          |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                      |
| 4. <u>Poa palustris</u>                                              |  |          |          |           | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 5. <u>Scirpus microcarpus</u>                                        |  |          |          |           | <b>Definitions of Vegetation Strata:</b>                                                                       |
| 6. <u>Prunella vulgaris</u>                                          |  |          |          |           |                                                                                                                |
| 7. <u>Carex bebbii</u>                                               |  |          |          |           | <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.    |
| 8. <u>Phleum pratense</u>                                            |  |          |          |           | <b>Sapling/Shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.       |
| 9. _____                                                             |  |          |          |           | <b>Herb</b> - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 10. _____                                                            |  |          |          |           | <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                                           |
| 11. _____                                                            |  |          |          |           | <b>Hydrophytic Vegetation Present?</b> _____                                                                   |
| 12. _____                                                            |  |          |          |           |                                                                                                                |
| 100 _____ = Total Cover                                              |  |          |          |           |                                                                                                                |
| <u>Woody Vine Stratum</u> (Plot Size: _____)                         |  |          |          |           |                                                                                                                |
| 1. _____                                                             |  |          |          |           |                                                                                                                |
| 2. _____                                                             |  |          |          |           |                                                                                                                |
| 3. _____                                                             |  |          |          |           |                                                                                                                |
| 4. _____                                                             |  |          |          |           |                                                                                                                |
| 0 _____ =Total Cover                                                 |  |          |          |           |                                                                                                                |
| <b>Remarks:</b> (include photo numbers here or on a separate sheet.) |  |          |          |           |                                                                                                                |
| Sample site is dominated by reed canary grass.                       |  |          |          |           |                                                                                                                |

## SOIL

Sampling Point: CLC5004\_...

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

[illegible]

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

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                                                                                                                                                                                   |                                                                                   | Indicators for Problematic Hydric Soil <sup>3</sup> :                         |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                                                                                                                                                                                    | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) | <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR K, L, MLRA 149B</b> )       |
| <input type="checkbox"/> Histic Epipedon (A2)                                                                                                                                                                             | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )       | <input type="checkbox"/> Coast Prairie Redox (A16)( <b>LRR K, L, R</b> )      |
| <input type="checkbox"/> Black Histic (A3)                                                                                                                                                                                | <input checked="" type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )  | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) ( <b>LRR K, L, R</b> )  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                                                                                                                                                                            | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 | <input type="checkbox"/> Dark Surface (S7) ( <b>LRR K, M</b> )                |
| <input type="checkbox"/> Stratified Layers (A5)                                                                                                                                                                           | <input type="checkbox"/> Depleted Matrix (F3)                                     | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR K, L</b> )     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)                                                                                                                                                                | <input type="checkbox"/> Redox Dark Surface (F6)                                  | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR K, L</b> )           |
| <input checked="" type="checkbox"/> Thick Dark Surface (A12)                                                                                                                                                              | <input type="checkbox"/> Depleted Dark Surface (F7)                               | <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR K, L, R</b> )   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                                                                                                                                                                         | <input type="checkbox"/> Redox Depressions (F8)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 149B</b> ) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                                                                                                                                                                         |                                                                                   | <input type="checkbox"/> Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )   |
| <input type="checkbox"/> Sandy Redox (S5)                                                                                                                                                                                 |                                                                                   | <input type="checkbox"/> Red Parent Material (F21)                            |
| <input type="checkbox"/> Stripped Matrix (S6)                                                                                                                                                                             |                                                                                   | <input type="checkbox"/> Very Shallow Dark Surface (TF12)                     |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )                                                                                                                                                    |                                                                                   | <input type="checkbox"/> Other (explain in remarks)                           |
| Restrictive Layer (if observed): <input type="checkbox"/>                                                                                                                                                                 | Hydric Soil Present? <u>Yes</u>                                                   |                                                                               |
| Type: _____<br>Depth (inches): _____                                                                                                                                                                                      |                                                                                   |                                                                               |
| Remarks:                                                                                                                                                                                                                  |                                                                                   |                                                                               |
| Soil is loamy mucky mineral over two layers of progressively darker clay. The bottom layer is depleted silty clay with redox. The profile meets hydric soil indicators A12-Thick Dark Surface and F1-Loamy Mucky Mineral. |                                                                                   |                                                                               |