

**WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region**

Project/Site: SPP City/County: Hubbard Sampling Date: 5/27/2014  
 Applicant/Owner: Enbridge State: MN Sampling Point: HUC5226a1W  
 Investigator(s): BEH/BCS Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): CC  
 Slope (%): 0 - 2% Lat.: 47.20934209 Long.: -94.955106 Datum: \_\_\_\_\_  
 Soil Map Unit Name: 1336 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>The wetland is a small, depressional sedge meadow which is surrounded by a mowed field. Carex utriculata covers the majority of the meadow. |  |

**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)                        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              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"/> Depth (inches): <u>1</u><br>Water table present? Yes <input checked="" type="checkbox"/> Depth (inches): <u>0</u><br>Saturation present? Yes <input checked="" type="checkbox"/> Depth (inches): <u>0</u><br>(includes capillary fringe)   | <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 is present throughout the majority of the wetland, over 1 foot deep in some locations.  |   |

**VEGETATION** - Use scientific names of plants

Sampling Point:

HUC5226a1W

| 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                    |                                 |  |  |  |                     |    |                  |                  |                  |
|                       |                                 |  |  |  |                     | 0  | = Total Cover    |                  |                  |
| Herb Stratum          |                                 |  |  |  | Plot Size ( 5 ft )  |    | Absolute % Cover | Dominant Species | Indicator Status |
| 1                     | <i>Carex utriculata</i>         |  |  |  |                     | 75 | Y                | OBL              |                  |
| 2                     | <i>Calamagrostis canadensis</i> |  |  |  |                     | 10 | N                | OBL              |                  |
| 3                     | <i>Carex pellita</i>            |  |  |  |                     | 5  | N                | OBL              |                  |
| 4                     | <i>Panicum maculosum</i>        |  |  |  |                     | 5  | N                | FAC              |                  |
| 5                     |                                 |  |  |  |                     |    |                  |                  |                  |
| 6                     |                                 |  |  |  |                     |    |                  |                  |                  |
| 7                     |                                 |  |  |  |                     |    |                  |                  |                  |
| 8                     |                                 |  |  |  |                     |    |                  |                  |                  |
| 9                     |                                 |  |  |  |                     |    |                  |                  |                  |
| 10                    |                                 |  |  |  |                     |    |                  |                  |                  |
| 11                    |                                 |  |  |  |                     |    |                  |                  |                  |
| 12                    |                                 |  |  |  |                     |    |                  |                  |                  |
| 13                    |                                 |  |  |  |                     |    |                  |                  |                  |
| 14                    |                                 |  |  |  |                     |    |                  |                  |                  |
| 15                    |                                 |  |  |  |                     |    |                  |                  |                  |
|                       |                                 |  |  |  |                     | 95 | = 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 | 0   | 0   |
| Herb Stratum          | 19  | 48  |
| Woody Vine Stratum    | 0   | 0   |

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across all Strata: 1 (B)

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

**Prevalence Index Worksheet**

Total % Cover of:

|                          |           |       |             |
|--------------------------|-----------|-------|-------------|
| OBL species              | <u>90</u> | x 1 = | <u>90</u>   |
| FACW species             | <u>0</u>  | x 2 = | <u>0</u>    |
| FAC species              | <u>5</u>  | x 3 = | <u>15</u>   |
| FACU species             | <u>0</u>  | x 4 = | <u>0</u>    |
| UPL species              | <u>0</u>  | x 5 = | <u>0</u>    |
| Column totals            | <u>95</u> | (A)   | <u>105</u>  |
|                          |           |       | (B)         |
| Prevalence Index = B/A = |           |       | <u>1.11</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)

The wetland is dominated primarily by Northwest Territory sedge with lesser components of Canada blue joint, woolly sedge, and lady's thumbprint.

**SOIL**

**Sampling Point:** HUC5226a1W

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

| Depth (In.) | Matrix        |     |     | Redox Features |     |    |       | Texture | Remarks |
|-------------|---------------|-----|-----|----------------|-----|----|-------|---------|---------|
|             | Color (moist) |     | %   | Color (moist)  |     | %  | Type* |         |         |
| 0-6         | Hue_10YR      | 2/1 | 100 |                |     |    |       |         | MMI     |
| 6-10        | Hue_10YR      | 3/2 | 100 |                |     |    |       |         | SIC     |
| 10-20       | Hue_2.5Y      | 5/2 | 85  | Hue_10YR       | 4/4 | 15 | C     | M       | SCL     |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |
|             |               |     |     |                |     |    |       |         |         |

\*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)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**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:**

Soil profile consists of 6 inches of mucky mineral soil underlain by two clayey layers, one of which contains prominent redox concentrations; soil meets hydric soil indicators A11- Depleted Below Dark Surface and F1- Loamy Mucky Mineral.