

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP City/County: Aitkin Sampling Date: 6/16/2014  
 Applicant/Owner: Enbridge State: MN Sampling Point: AI2C5146\_230a1U  
 Investigator(s): JRT/KJA Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.) Talf Local relief (concave, convex, none) CL  
 Slope (%): 0 - 2% Lat.: 46.637655 Long.: -93.310338 Datum: \_\_\_\_\_  
 Soil Map Unit Name: 202 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>N</u><br>Hydric soil present? <u>Y</u><br>Indicators of wetland hydrology present? <u>N</u>                                                                                                                                                                                                 | <b>Is the sampled area within a wetland?</b> <u>N</u><br>If yes, optional wetland site ID: _____ |
| Remarks: (Explain alternative procedures here or in a separate report.)<br>The upland sample point is located in a mesic hardwood forest with a canopy of red maple and quaking aspen. Although hydric soils were observed, the site is dominated by non-hydrophytic vegetation and exhibits no evidence of wetland hydrology. |                                                                                                  |

### HYDROLOGY

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Primary Indicators (minimum of one is required; check all that apply)<br><input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9)<br><input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13)<br><input 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 type="checkbox"/> Geomorphic Position (D2)<br><input type="checkbox"/> Shallow Aquitard (D3)<br><input type="checkbox"/> Microtopographic Relief (D4)<br><input type="checkbox"/> FAC-Neutral Test (D5) |
| Field Observations:<br>Surface water present? Yes <input type="checkbox"/><br>Water table present? Yes <input type="checkbox"/><br>Saturation present? Yes <input type="checkbox"/><br>(includes capillary fringe)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | Depth (inches): _____<br>Depth (inches): _____<br>Depth (inches): _____ | <b>Indicators of wetland hydrology present?</b> <u>N</u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Remarks:<br>No primary or secondary indicators of wetland hydrology were observed.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |

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

AI2C5146\_230a1U

| Tree Stratum |                            |  |  | Plot Size ( 30 ft ) |               | Absolute % Cover | Dominant Species | Indicator Status |
|--------------|----------------------------|--|--|---------------------|---------------|------------------|------------------|------------------|
| 1            | <i>Acer rubrum</i>         |  |  | 35                  | Y             | FAC              |                  |                  |
| 2            | <i>Populus tremuloides</i> |  |  | 15                  | Y             | FAC              |                  |                  |
| 3            |                            |  |  |                     |               |                  |                  |                  |
| 4            |                            |  |  |                     |               |                  |                  |                  |
| 5            |                            |  |  |                     |               |                  |                  |                  |
| 6            |                            |  |  |                     |               |                  |                  |                  |
| 7            |                            |  |  |                     |               |                  |                  |                  |
| 8            |                            |  |  |                     |               |                  |                  |                  |
| 9            |                            |  |  |                     |               |                  |                  |                  |
| 10           |                            |  |  |                     |               |                  |                  |                  |
|              |                            |  |  | 50                  | = Total Cover |                  |                  |                  |

  

| Sapling/Shrub Stratum |                            |  |  | Plot Size ( 15 ft ) |               | Absolute % Cover | Dominant Species | Indicator Status |
|-----------------------|----------------------------|--|--|---------------------|---------------|------------------|------------------|------------------|
| 1                     | <i>Fraxinus nigra</i>      |  |  | 30                  | Y             | FACW             |                  |                  |
| 2                     | <i>Corylus cornuta</i>     |  |  | 30                  | Y             | FACU             |                  |                  |
| 3                     | <i>Populus tremuloides</i> |  |  | 5                   | N             | FAC              |                  |                  |
| 4                     |                            |  |  |                     |               |                  |                  |                  |
| 5                     |                            |  |  |                     |               |                  |                  |                  |
| 6                     |                            |  |  |                     |               |                  |                  |                  |
| 7                     |                            |  |  |                     |               |                  |                  |                  |
| 8                     |                            |  |  |                     |               |                  |                  |                  |
| 9                     |                            |  |  |                     |               |                  |                  |                  |
| 10                    |                            |  |  |                     |               |                  |                  |                  |
|                       |                            |  |  | 65                  | = Total Cover |                  |                  |                  |

  

| Herb Stratum |                                  |  |  | Plot Size ( 5 ft ) |               | Absolute % Cover | Dominant Species | Indicator Status |
|--------------|----------------------------------|--|--|--------------------|---------------|------------------|------------------|------------------|
| 1            | <i>Eurybia macrophylla</i>       |  |  | 50                 | Y             | UPL              |                  |                  |
| 2            | <i>Pteridium aquilinum</i>       |  |  | 20                 | Y             | FACU             |                  |                  |
| 3            | <i>Matteuccia struthiopteris</i> |  |  | 10                 | N             | FAC              |                  |                  |
| 4            | <i>Onoclea sensibilis</i>        |  |  | 10                 | N             | FACW             |                  |                  |
| 5            | <i>Calamagrostis canadensis</i>  |  |  | 10                 | N             | OBL              |                  |                  |
| 6            |                                  |  |  |                    |               |                  |                  |                  |
| 7            |                                  |  |  |                    |               |                  |                  |                  |
| 8            |                                  |  |  |                    |               |                  |                  |                  |
| 9            |                                  |  |  |                    |               |                  |                  |                  |
| 10           |                                  |  |  |                    |               |                  |                  |                  |
| 11           |                                  |  |  |                    |               |                  |                  |                  |
| 12           |                                  |  |  |                    |               |                  |                  |                  |
| 13           |                                  |  |  |                    |               |                  |                  |                  |
| 14           |                                  |  |  |                    |               |                  |                  |                  |
| 15           |                                  |  |  |                    |               |                  |                  |                  |
|              |                                  |  |  | 100                | = 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          | 10  | 25  |
| Sapling/Shrub Stratum | 13  | 33  |
| Herb Stratum          | 20  | 50  |
| 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: 6 (B)

Percent of Dominant Species that are OBL, FACW, or FAC: 50.00% (A/B)

**Prevalence Index Worksheet**

Total % Cover of:

|                          |     |             |         |
|--------------------------|-----|-------------|---------|
| OBL species              | 10  | x 1 =       | 10      |
| FACW species             | 40  | x 2 =       | 80      |
| FAC species              | 65  | x 3 =       | 195     |
| FACU species             | 50  | x 4 =       | 200     |
| UPL species              | 50  | x 5 =       | 250     |
| Column totals            | 215 | (A)         | 735 (B) |
| Prevalence Index = B/A = |     | <u>3.42</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?** N

Remarks: (Include photo numbers here or on a separate sheet)

The upland sample point is located in a mesic hardwood forest with red maple and quaking aspen in the overstory and black ash and beaked hazelnut in the shrub stratum. The herb stratum features big-leaf aster and three different ferns.

## SOIL

**Sampling Point:** AI2C5146\_230a1U

[illegible]