

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

|  |   |                          |   |
|--|---|--------------------------|---|
| Project/Site:  | L3R   | Date:                    | 10/14/14  |
| Applicant:   | Enbridge  | County:                  | Red Lake  |
| Investigators:   | BCS/KRG   | State:                   | MN  |
| Soil Unit:   | I59A  | Subregion (MLRA or LRR): | MLRA 56   |
| Landform:  | Talf  | NWI Classification:      |   |
| Slope (%):   | 0 - 2%  | Local Relief:            | LL  |
|  | Latitude: 47.8825353  | Longitude: -95.977414    | Datum:  |
| Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in remarks)                            |   |                          | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |
| Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> significantly disturbed? | Are normal circumstances present?                                   |                          |   |
| Are Vegetation <input type="checkbox"/> Soil <input type="checkbox"/> or Hydrology <input type="checkbox"/> naturally problematic?   | <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No |                          |   |
| Sample Point:  |   |                          | u-151n42w24-m1  |
| Section:   |   |                          |   |
| Township:  |   |                          |   |
| Range:   |   |                          | Dir:  |

**SUMMARY OF FINDINGS**

|                                 |    |   |
|---------------------------------|----|---|
| Hydrophytic Vegetation Present? | No | Hydic Soils Present? No                     |
| Wetland Hydrology Present?      | No | Is This Sampling Point Within A Wetland? No |

Remarks: The upland sample point is located in a hardwood forest community dominated by quaking aspen, bur oak, Pennsylvania sedge, and bracken fern.

**HYDROLOGY**

**Wetland Hydrology Indicators** (Check all that apply; Minimum of one primary or two secondary required):

|   |   |  |
|---|---|--|
| <p><u>Primary:</u></p> <input type="checkbox"/> A1 - Surface Water<br><input type="checkbox"/> A2 - High Water Table<br><input type="checkbox"/> A3 - Saturation<br><input type="checkbox"/> B1 - Water Marks<br><input type="checkbox"/> B2 - Sediment Deposits<br><input type="checkbox"/> B3 - Drift Deposits<br><input type="checkbox"/> B4 - Algal Mat or Crust<br><input type="checkbox"/> B5 - Iron Deposits<br><input type="checkbox"/> B7 - Inundation Visible on Aerial Imagery<br><input type="checkbox"/> B9 - Water-Stained Leaves | <input type="checkbox"/> B11 - Salt Crust<br><input type="checkbox"/> B13 - Aquatic Fauna<br><input type="checkbox"/> C1 - Hydrogen Sulfide Odor<br><input type="checkbox"/> C2 - Dry Season Water Table<br><input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (not till)<br><input type="checkbox"/> C4 - Presence of Reduced Iron<br><input type="checkbox"/> C7 - Thin Muck Surface<br><input type="checkbox"/> Other (Explain) | <p><u>Secondary:</u></p> <input type="checkbox"/> B6 - Surface Soil Cracks<br><input type="checkbox"/> B8 - Sparsely Vegetated Concave Surface<br><input type="checkbox"/> B10 - Drainage Patterns<br><input type="checkbox"/> C3 - Oxidized Rhizospheres on Living Roots (tilled)<br><input type="checkbox"/> C8 - Crayfish Burrows<br><input type="checkbox"/> C9 - Saturation Visible on Aerial Imagery<br><input type="checkbox"/> D2 - Geomorphic Position<br><input type="checkbox"/> D5 - FAC-Neutral Test<br><input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F) |
|---|---|--|

**Field Observations:**

|   |                    |  |
|---|--------------------|--|
| Surface Water Present? Yes <input type="checkbox"/> | Depth: _____ (in.) | <b>Wetland Hydrology Present?</b> <u>  N  </u> |
| Water Table Present? Yes <input type="checkbox"/>   | Depth: _____ (in.) |  |
| Saturation Present? Yes <input type="checkbox"/>    | Depth: _____ (in.) |  |

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks: No primary or secondary indicators of wetland hydrology were observed.

**SOILS**

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

(Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered/Coated Sand Grains; Location: PL=Pore Lining, M=Matrix)

| Depth (In.) | Matrix        |     |     | Mottles       |   |      |          | Texture | Remarks |
|-------------|---------------|-----|-----|---------------|---|------|----------|---------|---------|
|             | Color (Moist) |     | %   | Color (Moist) | % | Type | Location |         |         |
| 0-5         | Hue_10YR      | 2/1 | 100 |               |   |      |          | FSL     |         |
| 5-9         | Hue_10YR      | 5/2 | 80  |               |   |      |          | FS      |         |
| 5-9         | Hue_10YR      | 6/1 | 20  |               |   |      |          | FS      |         |
| 9-18        | Hue_10YR      | 4/2 | 100 |               |   |      |          | FS      |         |

**NRCS Hydric Soil Field Indicators** (check here if indicators are not present):

|   |  |   |
|---|--|---|
| <input type="checkbox"/> A1 - Histosol<br><input type="checkbox"/> A2 - Histic Epipedon<br><input type="checkbox"/> A3 - Black Histic<br><input type="checkbox"/> A4 - Hydrogen Sulfide<br><input type="checkbox"/> A5 - Stratified Layers (LRR F)<br><input type="checkbox"/> A9 - 1 cm Muck (LRR FGH)<br><input type="checkbox"/> A11 - Depleted Below Dark Surface<br><input type="checkbox"/> A12 - Thick Dark Surface<br><input type="checkbox"/> S1 - Sandy Mucky Mineral<br><input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H)<br><input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F)<br><input type="checkbox"/> S4 - Sandy Gleyed Matrix | <input type="checkbox"/> S5 - Sandy Redox<br><input type="checkbox"/> S6 - Stripped Matrix<br><input type="checkbox"/> F1 - Loamy Mucky Mineral<br><input type="checkbox"/> F2 - Loamy Gleyed Matrix<br><input type="checkbox"/> F3 - Depleted Matrix<br><input type="checkbox"/> F6 - Redox Dark Surface<br><input type="checkbox"/> F7 - Depleted Dark Surface<br><input type="checkbox"/> F8 - Redox Depressions<br><input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H) | <p><b>Indicators for Problematic Soils<sup>1</sup></b></p> <input type="checkbox"/> A9 - 1 cm Muck (LRR I, J)<br><input type="checkbox"/> A16 - Coast Prairie Redox (LRR F, G, H)<br><input type="checkbox"/> S7 - Dark Surface (LRR G)<br><input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73)<br><input type="checkbox"/> F18 - Reduced Vertic<br><input type="checkbox"/> TF2 - Red Parent Material<br><input type="checkbox"/> TF12 - Very Shallow Dark Surface<br><input type="checkbox"/> Other (Explain in Remarks) |
|---|--|---|

<sup>1</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

|                   |             |              |   |
|-------------------|-------------|--------------|---|
| Restrictive Layer | Type: _____ | Depth: _____ | <b>Hydic Soil Present?</b> <u>  N  </u> |
|-------------------|-------------|--------------|---|

Remarks: Soil consists of a black fine sandy loam underlain by lighter fine sand. Does not meet any hydric soil indicators.

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

Project/Site: **L3R** Sample Point: **u-151n42w24-m1**

**VEGETATION** (Species identified in all uppercase are non-native species.)

Tree Stratum (Plot size: 30 ft. radius)

| 1.  | Species Name               | % Cover | Dominant | Ind.Status |
|-----|----------------------------|---------|----------|------------|
|     | <i>Populus tremuloides</i> | 30      | Y        | FAC        |
|     | <i>Quercus macrocarpa</i>  | 15      | Y        | FACU       |
| 3.  |                            |         |          |            |
| 4.  |                            |         |          |            |
| 5.  |                            |         |          |            |
| 6.  |                            |         |          |            |
| 7.  |                            |         |          |            |
| 8.  |                            |         |          |            |
| 9.  |                            |         |          |            |
| 10. |                            |         |          |            |

**Dominance Test Worksheet**

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

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)

Total Cover = 45

Sapling/Shrub Stratum (Plot size: 15 ft. radius)

|     |                            |    |   |      |
|-----|----------------------------|----|---|------|
| 1.  | <i>Quercus macrocarpa</i>  | 15 | Y | FACU |
| 2.  | <i>Populus tremuloides</i> | 5  | N | FAC  |
| 3.  | <i>Cornus alba</i>         | 5  | N | FACW |
| 4.  | <i>Corylus americana</i>   | 5  | N | UPL  |
| 5.  |                            |    |   |      |
| 6.  |                            |    |   |      |
| 7.  |                            |    |   |      |
| 8.  |                            |    |   |      |
| 9.  |                            |    |   |      |
| 10. |                            |    |   |      |

**Prevalence Index Worksheet**

| Total % Cover of:    | Multiply by: |                |
|----------------------|--------------|----------------|
| OBL spp. <u>0</u>    | x 1 =        | <u>0</u>       |
| FACW spp. <u>7</u>   | x 2 =        | <u>14</u>      |
| FAC spp. <u>42</u>   | x 3 =        | <u>126</u>     |
| FACU spp. <u>60</u>  | x 4 =        | <u>240</u>     |
| UPL spp. <u>35</u>   | x 5 =        | <u>175</u>     |
| Total <u>144</u> (A) |              | <u>555</u> (B) |

Prevalence Index = B/A = 3.854

Total Cover = 30

Herb Stratum (Plot size: 5 ft. radius)

|     |                                 |    |   |      |
|-----|---------------------------------|----|---|------|
| 1.  | <i>Carex pensylvanica</i>       | 30 | Y | NI   |
| 2.  | <i>Pteridium aquilinum</i>      | 15 | Y | FACU |
| 3.  | <i>Geum aleppicum</i>           | 10 | N | FACU |
| 4.  | <i>Veronicastrum virginicum</i> | 5  | N | FAC  |
| 5.  | <i>Solidago canadensis</i>      | 5  | N | FACU |
| 6.  | <i>Zizia aurea</i>              | 2  | N | FAC  |
| 7.  | <i>Thalictrum dioicum</i>       | 2  | N | FACW |
| 8.  |                                 |    |   |      |
| 9.  |                                 |    |   |      |
| 10. |                                 |    |   |      |
| 11. |                                 |    |   |      |
| 12. |                                 |    |   |      |
| 13. |                                 |    |   |      |
| 14. |                                 |    |   |      |
| 15. |                                 |    |   |      |

**Hydrophytic Vegetation Indicators:**

Rapid Test for Hydrophytic Vegetation

Dominance Test is > 50%

Prevalence Index is ≤ 3.0 \*

Morphological Adaptations (Explain) \*

Problem Hydrophytic Vegetation (Explain) \*

\* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Total Cover = 69

Woody Vine Stratum (Plot size: 30 ft. radius)

|    |  |  |  |  |
|----|--|--|--|--|
| 1. |  |  |  |  |
| 2. |  |  |  |  |
| 3. |  |  |  |  |
| 4. |  |  |  |  |

**Definitions of Vegetation Strata:**

**Tree** - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/Shrub** - Woody plants less than 3 in. DBH, regardless of height.

**Herb** - All herbaceous (non-woody) plants, regardless of size.

**Woody Vines** - All woody vines, regardless of height.

Total Cover = 0

**Hydrophytic Vegetation Present?** N

Remarks: **Vegetation is dominated by quaking aspen and bur oak in the tree stratum, with a sparse mix of shrubs below. Pennsylvania sedge and bracken fern dominate the herbaceous layer.**

**Additional Remarks:**