

**WETLAND DETERMINATION DATA FORM**  
Great Plains Region

|  |            |                          |   |   |                |
|--|------------|--------------------------|---|---|----------------|
| Project/Site:  | L3R        | Subregion (MLRA or LRR): | MLRA 56   | Date:   | 06/25/14       |
| Applicant:   | Enbridge   | County:                  | Marshall  | State:  | MN             |
| Investigators:   | NTT/KRG    |                          |   |   |                |
| Soil Unit:   | I133A      | NWI Classification:      |   |   |                |
| Landform:  | Depression | Local Relief:            | CL  | Sample Point:   | w-158n48w15-b1 |
| Slope (%):   | 16 - 25%   | Latitude:                | 48.506303   | Longitude:  | -96.845611     |
| 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 |   |                |
| Section:   |            |                          |   | Township:   |                |
| Range:   |            |                          |   | Dir:  |                |

**SUMMARY OF FINDINGS**

|                                 |     |   |            |
|---------------------------------|-----|---|------------|
| Hydrophytic Vegetation Present? | Yes | Hydric Soils Present?                           | Yes        |
| Wetland Hydrology Present?      | Yes | <b>Is This Sampling Point Within A Wetland?</b> | <b>Yes</b> |

Remarks: **The wetland is a sedge meadow within a roadside ditch dominated by Elymus repens and Eleocharis palustris.**

**HYDROLOGY**

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

|   |   |  |
|---|---|--|
| <p><u>Primary:</u></p> <input checked="" type="checkbox"/> A1 - Surface Water<br><input type="checkbox"/> A2 - High Water Table<br><input checked="" 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 checked="" type="checkbox"/> D2 - Geomorphic Position<br><input checked="" type="checkbox"/> D5 - FAC-Neutral Test<br><input type="checkbox"/> D7 - Frost-Heaved Hummocks (LRR F) |
|---|---|--|

**Field Observations:**

|  |                       |  |
|--|-----------------------|--|
| Surface Water Present? Yes <input checked="" type="checkbox"/> | Depth: <u>3</u> (in.) | <b>Wetland Hydrology Present?</b> <u>Y</u> |
| Water Table Present? Yes <input type="checkbox"/>              | Depth: _____ (in.)    |  |
| Saturation Present? Yes <input checked="" type="checkbox"/>    | Depth: <u>0</u> (in.) |  |

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

Remarks: **The wetland is saturated throughout with areas of standing water that reach a depth of three inches.**

**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 |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |
|             |               |   |               |   |      |          |         |         |

**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 - Cost 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 checked="" 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>Hydric Soil Present?</b> <u>Y</u> |
|-------------------------------|--------------|--------------------------------------|

Remarks: **Soils were not sampled due to the location within a roadside ditch. Soils can be assumed hydric based on the landscape position and dominance of hydrophytic vegetation.**

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Great Plains Region

Project/Site: **L3R** Sample Point: **w-158n48w15-b1**

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

Tree Stratum (Plot size: 30 ft. radius)

|     | Species Name | % Cover       | Dominant | Ind.Status |
|-----|--------------|---------------|----------|------------|
| 1.  |              |               |          |            |
| 2.  |              |               |          |            |
| 3.  |              |               |          |            |
| 4.  |              |               |          |            |
| 5.  |              |               |          |            |
| 6.  |              |               |          |            |
| 7.  |              |               |          |            |
| 8.  |              |               |          |            |
| 9.  |              |               |          |            |
| 10. |              |               |          |            |
|     |              | Total Cover = | <b>0</b> |            |

**Dominance Test Worksheet**

Number of Dominant Species that are OBL, FACW, or FAC: **2** (A)

Total Number of Dominant Species Across All Strata: **3** (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: **66.7%** (A/B)

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

|     |  |               |          |  |
|-----|--|---------------|----------|--|
| 1.  |  |               |          |  |
| 2.  |  |               |          |  |
| 3.  |  |               |          |  |
| 4.  |  |               |          |  |
| 5.  |  |               |          |  |
| 6.  |  |               |          |  |
| 7.  |  |               |          |  |
| 8.  |  |               |          |  |
| 9.  |  |               |          |  |
| 10. |  |               |          |  |
|     |  | Total Cover = | <b>0</b> |  |

**Prevalence Index Worksheet**

| Total % Cover of:        | Multiply by: |                |
|--------------------------|--------------|----------------|
| OBL spp. <b>45</b>       | x 1 =        | <b>45</b>      |
| FACW spp. <b>10</b>      | x 2 =        | <b>20</b>      |
| FAC spp. <b>0</b>        | x 3 =        | <b>0</b>       |
| FACU spp. <b>35</b>      | x 4 =        | <b>140</b>     |
| UPL spp. <b>0</b>        | x 5 =        | <b>0</b>       |
| <b>Total 90</b> (A)      |              | <b>205</b> (B) |
| Prevalence Index = B/A = |              | <b>2.278</b>   |

Herb Stratum (Plot size: 5 ft. radius)

|     |                             |               |           |             |
|-----|-----------------------------|---------------|-----------|-------------|
| 1.  | <i>Elymus repens</i>        | 30            | <b>Y</b>  | <b>FACU</b> |
| 2.  | <i>Eleocharis palustris</i> | 20            | <b>Y</b>  | <b>OBL</b>  |
| 3.  | <i>Carex pellita</i>        | 20            | <b>Y</b>  | <b>OBL</b>  |
| 4.  | <i>Phragmites australis</i> | 10            | <b>N</b>  | <b>FACW</b> |
| 5.  | <i>Cirsium arvense</i>      | 5             | <b>N</b>  | <b>FACU</b> |
| 6.  | <i>Alisma triviale</i>      | 5             | <b>N</b>  | <b>OBL</b>  |
| 7.  |                             |               |           |             |
| 8.  |                             |               |           |             |
| 9.  |                             |               |           |             |
| 10. |                             |               |           |             |
| 11. |                             |               |           |             |
| 12. |                             |               |           |             |
| 13. |                             |               |           |             |
| 14. |                             |               |           |             |
| 15. |                             |               |           |             |
|     |                             | Total Cover = | <b>90</b> |             |

**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.

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

|    |  |               |          |  |
|----|--|---------------|----------|--|
| 1. |  |               |          |  |
| 2. |  |               |          |  |
| 3. |  |               |          |  |
| 5. |  |               |          |  |
| 4. |  |               |          |  |
|    |  | Total Cover = | <b>0</b> |  |

**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.

**Hydrophytic Vegetation Present?** **Y**

Remarks: **The wetland vegetation is dominated by Elymus repens, Eleocharis palustris, and Carex pellita.**

Additional Remarks: