

WETLAND DETERMINATION DATA FORM
Great Plains Region

| | | | |
|--|---|--------------------------|---|
| Project/Site: | L3R | Date: | 10/04/14 |
| Applicant: | Enbridge | County: | Polk |
| Investigators: | JLS/SAM | State: | MN |
| Soil Unit: | 712 | Subregion (MLRA or LRR): | MLRA 56 |
| Landform: | Rise | NWI Classification: | |
| Slope (%): | 0 - 2% | Local Relief: | VV |
| | Latitude: 47.8043363 | Longitude: -95.713909 | 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-150n40w24-h2 |
| Section: | | | |
| Township: | | | |
| Range: | | | Dir: |

SUMMARY OF FINDINGS

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

Remarks: The upland sample point is located on a slight rise within an open pasture. Soils contain relict hydric features; however, no other wetland indicators were observed.

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

Field Observations:

| | | |
|---|--------------------|--|
| Surface Water Present? Yes <input type="checkbox"/> | Depth: _____ (in.) | Wetland Hydrology Present? <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 | | |
| 0-21 | Hue 10YR | 2/1 | 100 | | | | | L | |
| 21-27 | Gley1 | 3/N | 98 | Hue 5YR | 4/6 | 2 | C | M | C |
| | | | | | | | | | |
| | | | | | | | | | |

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

| | | |
|--|--|---|
| <input type="checkbox"/> A1 - Histosol <input type="checkbox"/> A2 - Histic Epipedon <input type="checkbox"/> A3 - Black Histic <input type="checkbox"/> A4 - Hydrogen Sulfide <input type="checkbox"/> A5 - Stratified Layers (LRR F) <input type="checkbox"/> A9 - 1 cm Muck (LRR FGH) <input type="checkbox"/> A11 - Depleted Below Dark Surface <input checked="" type="checkbox"/> A12 - Thick Dark Surface <input type="checkbox"/> S1 - Sandy Mucky Mineral <input type="checkbox"/> S2 - 2.5 cm Mucky Peat or Peat (LRR G, H) <input type="checkbox"/> S3 - 5 cm Mucky Peat or Peat (LRR F) <input type="checkbox"/> S4 - Sandy Gleyed Matrix | <input type="checkbox"/> S5 - Sandy Redox <input type="checkbox"/> S6 - Stripped Matrix <input type="checkbox"/> F1 - Loamy Mucky Mineral <input type="checkbox"/> F2 - Loamy Gleyed Matrix <input type="checkbox"/> F3 - Depleted Matrix <input type="checkbox"/> F6 - Redox Dark Surface <input type="checkbox"/> F7 - Depleted Dark Surface <input type="checkbox"/> F8 - Redox Depressions <input type="checkbox"/> F16 - High Plains Depressions (MLRA 72, 73 of LRR H) | <p>Indicators for Problematic Soils¹</p> <input type="checkbox"/> A9 - 1 cm Muck (LRR I, J) <input type="checkbox"/> A16 - Coast Prairie Redox (LRR F, G, H) <input type="checkbox"/> S7 - Dark Surface (LRR G) <input type="checkbox"/> F16 - High Plains Depressions (LRR H, outside MLRA 72, 73) <input type="checkbox"/> F18 - Reduced Vertic <input type="checkbox"/> TF2 - Red Parent Material <input type="checkbox"/> TF12 - Very Shallow Dark Surface <input type="checkbox"/> Other (Explain in Remarks) |
|--|--|---|

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

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

Remarks: The profile contains a gleyed clay matrix below black loam. Soils meet a hydric indicator; however, past drainage has converted the area to upland. The area no longer supports hydrophytic vegetation.

WETLAND DETERMINATION DATA FORM
Great Plains Region

Project/Site: **L3R** Sample Point: **u-150n40w24-h2**

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

Tree Stratum (Plot size: 30 ft. radius)

| 1. | Species Name | % Cover | Dominant | Ind. Status |
|-----|--------------|---------|----------|-------------|
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |

Dominance Test Worksheet

Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)

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

Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)

Total Cover = 0

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

| | | | | |
|-----|---------------------|---|---|------|
| 1. | <i>Rubus idaeus</i> | 5 | Y | FACU |
| 2. | | | | |
| 3. | | | | |
| 4. | | | | |
| 5. | | | | |
| 6. | | | | |
| 7. | | | | |
| 8. | | | | |
| 9. | | | | |
| 10. | | | | |

Prevalence Index Worksheet

| Total % Cover of: | Multiply by: | |
|----------------------|--------------|----------------|
| OBL spp. <u>5</u> | x 1 = | <u>5</u> |
| FACW spp. <u>0</u> | x 2 = | <u>0</u> |
| FAC spp. <u>5</u> | x 3 = | <u>15</u> |
| FACU spp. <u>35</u> | x 4 = | <u>140</u> |
| UPL spp. <u>85</u> | x 5 = | <u>425</u> |
| Total <u>130</u> (A) | | <u>585</u> (B) |

Prevalence Index = B/A = 4.500

Total Cover = 5

Herb Stratum (Plot size: 5 ft. radius)

| | | | | |
|-----|----------------------------|----|---|------|
| 1. | <i>Bromus inermis</i> | 60 | Y | UPL |
| 2. | <i>Carduus acanthoides</i> | 25 | Y | NI |
| 3. | <i>Elymus trachycaulus</i> | 10 | N | FACU |
| 4. | <i>Poa pratensis</i> | 10 | N | FACU |
| 5. | <i>Cirsium arvense</i> | 5 | N | FACU |
| 6. | <i>Solidago canadensis</i> | 5 | N | FACU |
| 7. | <i>Zizia aurea</i> | 5 | N | FAC |
| 8. | <i>Carex pellita</i> | 5 | N | OBL |
| 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 = 125

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

| | | | | |
|----|--|--|--|--|
| 1. | | | | |
| 2. | | | | |
| 3. | | | | |
| 5. | | | | |
| 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: **The site is dominated by smooth brome and plumeless thistle with a mix of other species. The topography of the area is quite flat, so the wetland boundary is a gradual transition.**

Additional Remarks: