## WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

| Project/Site: SPP  | City/County: Cass            |                                 | Sampling Date: 2016-08-04                      |
|--|------------------------------|---------------------------------|--|
| Applicant/Owner: Enbridge  |                              | State: Minnesota                | Sampling Point: w-139n25w8-ao1                 |
| Investigator(s): DPT,  | Section, Townshi             | p, Range: S8, T139N, R25W       |  |
| Landform (hillslope, terrace, etc.): Depression                            |                              | Local Relief (concave, conve    | x, none): CC Slope (%): 0-2%                   |
| Subregion (LRR or MLRA):   | <br>Latitude: 40             | •                               | de: -93.87419443 Datum: NAD83                  |
| Soil Map Unit Name: 142  | _                            |                                 | NWI Classification: N/A                        |
| Are climatic/hydrologic conditions on the site t                           | voical for this time of year | ? (if no. explain in Remarks):  | Yes  |
|  |                              |                                 |  |
| Are Vegetation No , Soil No , or Hydrolog                                  | significantly distur         | bed? Are "Normal Circumstai     | nces" present? <u>Yes</u>                      |
| Are Vegetation No , Soil No , or Hydrology                                 | No naturally problemati      | c? (If needed, explain any an   | swers in Remarks)                              |
| SUBMINARY OF EINDINGS. Attack site man                                     | howing compliance solut le   |                                 | t footuuro oto                                 |
| Hydrophytic Vegetation Present?  | Yes                          | Is the Sampled Area             | t reatures, etc.                               |
| Hydric Soil Present?   | Yes                          | within a Wetland?               | Yes  |
| Wetland Hydrology Present?   | Yes                          | If yes, optional Wetland Site   | <del></del>                                    |
| Remarks: (Explain alternative procedures here                              |                              | ii yes, optional wetiand site   | <u>w 155/125W0 d0</u>                          |
| Existing forest road, no digging, potential buri                           | ,                            |                                 |  |
| Existing forest road, no digging, potential built                          | eu utilities.                |                                 |  |
|  |                              |                                 |  |
|  |                              |                                 |  |
| HYDROLOGY  |                              |                                 |  |
| Wetland Hydrology Indicators:  |                              |                                 | Secondary Indicators (minimum of two required) |
| Primary Indicators (minimum of one is required                             | d; check all that apply)     |                                 | Surface Soil Cracks (B6)                       |
| Surface Water (A1)   | Water-Stained Leave          | es (B9)                         | Drainage Patterns (B10)                        |
| High Water Table (A2)  | Aquatic Fauna (B13)          |                                 | Moss Trim Lines (B16)                          |
| Saturation (A3)  | Marl Deposits (B15)          |                                 | Dry-Season Water Table (C2)                    |
| Water Marks (B1)   | Hydrogen Sulfide Oc          | lor (C1)                        | Crayfish Burrows (C8)                          |
| Sediment Deposits (B2)   | Oxidized Rhizospher          | es on Living Roots (C3)         | Saturation Visible on Aerial Imagery (C9)      |
| Drift Deposits (B3)  | Presence of Reduced          | d Iron (C4)                     | Stunted/Stressed Plants (D1)                   |
| Algal Mat or Crust (B4)  | Recent Iron Reduction        | on in Tilled Soils (C6)         | Yes Geomorphic Position (D2)                   |
| Iron Deposits (B5)   | Thin Muck Surface (          |                                 | Shallow Aquitard (D3)                          |
| Inundation Visible on Aerial Imagery (B7)                                  | Other (Explain in Re         | marks)                          | Microtopographic Relief (D4)                   |
| yes Sparsely Vegetated Concave Surface (B8)                                |                              |                                 | yes FAC-Neutral Test (D5)                      |
| Field Observations:  |                              |                                 |  |
| Surface Water Present? No  | _ Depth (inches)             | i                               |  |
| Water Table Present?   | _ Depth (inches)             |                                 | Voc  |
| Saturation Present? No   | _ Depth (inches)             | ' —   w                         | etland Hydrology Present? Yes                  |
| (includes capillary fringe)  Describe Recorded Data (stream gauge, monitor | wing well porial photos w    | ravious inspections) if availa  | hla  |
| Describe Recorded Data (stream gauge, monito                               | oring well, aerial photos, p | revious inspections), ii availa | bie.   |
|  |                              |                                 |  |
| Remarks:   |                              |                                 |  |
| No digging, could not verify water table.                                  |                              |                                 |  |
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|  |                              |                                 |  |
|  |                              |                                 |  |
|  |                              |                                 |  |

| <b>VEGETATION</b> - Use scientific names of plants.         |              |               |           | Sampling Point: w-139n25   |
|---|--------------|---------------|-----------|--|
|   | Absolute     | Dominant      | Indicator | Dominance Test worksheet:  |
| Tree Stratum (Plot Size: 30 )                               | % Cover      | Species?      | Status    | Number of Dominant Species   |
| 1. Fraxinus nigra   | 5.00         | Yes           | FACW      | That Are OBL, FACW, or FAC: 3 (A)  |
| 2.  |              |               |           | Total Number of Dominant   |
| 3.  |              |               |           | Species Across All Strata: 3 (B)   |
| 4.  |              |               |           | Percent of Dominant Species  |
| 5.  |              |               |           | That Are OBL, FACW, or FAC: 100 (A/B)  |
| 6.  |              |               |           | Prevalence Index worksheet:  |
| 7.  |              |               |           | Total % Cover of: Multiply by:   |
|   | 5            | = Total Cover |           | OBL species 15.00 x 1 15   |
| Sapling/Shrub Stratum (Plot Size: 15                        |              | _             |           | FACW species 30.00 x 2 60  |
| 1. Fraxinus nigra   | 5.00         | Yes           | FACW      | FACU species 0.00 x 3 0  |
| 2.  |              |               |           | UPL species 0.00 x 4 0   |
| 3.  |              |               |           | Column Totals 45 (A) 75 (B)  |
| 4.  |              |               |           | Prevalence Index = B/A = <u>1.6666666</u>  |
| 5.  |              |               |           | Hydrophytic Vegetation Indicators:   |
| 6.  |              |               |           | 1 - Rapid Test for Hydrophytic Vegetation  |
| 7.  |              |               |           | yes 2 - Dominance Test is > 50%  |
|   | 5            | = Total Cover | _         | yes 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>   |
| Herb Stratum (Plot Size: 5                                  |              | _             |           | 4 - Morphological Adaptations (Provide   |
| 1. Carex lacustris  | 15.00        | Yes           | OBL       | supporting data in Remarks or on a separate sheet)   |
| 2. Calamagrostis canadensis                                 | 10.00        | Yes           | FACW      | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 3. Onoclea sensibilis                                       | 5.00         | No            | FACW      | <u> </u>   |
| 4. Impatiens capensis                                       | 5.00         | No No         | FACW      | Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.              |
| 5.  | <del>i</del> |               |           | Definitions of Vegetation Strata:  |
| 6.  |              |               |           |  |
| 7   |              | _             | _         | Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast   |
| 8.  |              | _             |           | height (DBH), regardless of height.  |
| 9   |              | _             |           | Sapling/Shrub - Woody plants less than 3 in. DBH and greater than  |
|   |              | _             | _         | or equal to 3.28 ft (1 m) tall.  |
| 10  |              | _             |           | -  |
| 11  |              | _             |           | <b>Herb</b> - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 12  |              | _             | _         |  |
|   | 35           | = Total Cover |           | Woody vines - All woody vines greater than 3.28 ft in height.  |
| Woody Vine Stratum (Plot Size: 30 )                         |              |               |           |  |
| 1.  |              |               |           | -  |
| 2   |              |               | _         | Hydrophytic Vegetation   |
| 3   |              |               | _         | Present? Yes   |
| 4   | -            |               |           |  |
|   | 0            | =Total Cover  |           |  |
| Remarks: (include photo numbers here or on a separate sheet | t.)          |               |           |  |
|   |              |               |           |  |
|   |              |               |           |  |
|   |              |               |           |  |
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|   |              |               |           |  |
|   |              |               |           |  |
|   |              |               |           |  |
|   |              |               |           |  |

Sampling Point: w-139n25... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc<sup>2</sup> (inches) Color (moist) Color (moist) % Type<sup>1</sup> Texture Remarks <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil<sup>3</sup>: Hydric Soil Indicators: Polyvalue Below Surface (S8) (LRR R, MLRA Histosol (A1) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Coast Prairie Redox (A16)(LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Dark Surface (S7) (LRR K, M) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Maganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) ✓ Other (explain in remarks) Dark Surface (S7) (LRR R, MLRA 149B) Restrictive Layer (if observed): Hydric Soil Present? Yes Depth (inches): Remarks: No digging, soils assumed hydric based on veg/hydro.

Site Photograph 1 Sampling Point: w-139n25w8-ao1



| Latitude: 46.8674807763164   | Cowardin Classification: PEM            |  |  |  |
|------------------------------|---|--|--|--|
| Longitude: -93.8741944358627 | Circular 39: 1                          |  |  |  |
| Direction: north             | Eggers & Reed: Seasonally Flooded Basin |  |  |  |
| Remarks:                     |   |  |  |  |
|                              |   |  |  |  |
|                              |   |  |  |  |
|                              |   |  |  |  |
|                              |   |  |  |  |
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|                              |   |  |  |  |

Site Photograph 2 Sampling Point: w-139n25w8-ao1



| Latitude:      | 46.8674218096276  | Cowardin Classification: PEM            |  |
|----------------|-------------------|---|--|
| Longitude:     | -93.8741777558754 | Circular 39: 1                          |  |
| irection: sout | h                 | Eggers & Reed: Seasonally Flooded Basin |  |
| emarks:        |                   |   |  |
|                |                   |   |  |
|                |                   |   |  |
|                |                   |   |  |
|                |                   |   |  |
|                |                   |   |  |
|                |                   |   |  |