| WETLAI   | ND DETERMIN         | ATION DATA F   | ORM - North Cer              | ntral and No                 | rtheast Region                            |                           |                  |  |
|--|---------------------|--|------------------------------|------------------------------|---|---------------------------|------------------|--|
| Project/Site: SPP  | City/Cou            | ity/County: Carlton                                      |                              |                              |   | Sampling Date: 2016-07-18 |                  |  |
| Applicant/Owner: Enbridge  |                     | State: Minnesota   |                              |                              | Sampling Point: w-47n18w2-aa1             |                           |                  |  |
| Investigator(s): ZCW   | S                   | ection, Townshi  | p, Range: <u>S 2, T 47</u> 1 | N, R 18W                     |   |                           |                  |  |
| Landform (hillslope, terrace, etc.): Depres                            | sion                | Local Relief (concave, convex, none): CC Slope (%): 0-2% |                              |                              |   |                           | (%): 0-2%        |  |
| Subregion (LRR or MLRA):   |                     | Latitude: 46.5863229521 Longitude                        |                              |                              | : -92.58267408 Datum: NAD83               |                           |                  |  |
| Soil Map Unit Name: 268B   |                     |  |                              | -                            | NWI Clas                                  | sification: N/A           |                  |  |
| Are climatic/hydrologic conditions on the                              | site typical for t  | his time of year   | ? (if no, explain in R       | Remarks):                    |   | Yes                       |                  |  |
| Are Vegetation <u>No</u> , Soil <u>No</u> , or Hyd                     |                     |  |                              |                              | s" present? Yes                           |                           |                  |  |
| Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydro                   | logy <u>No</u> natu | rally problemation                                       | ? (If needed, expl           | ain any answe                | ers in Remarks)                           |                           |                  |  |
| SUMMARY OF FINDINGS - Attach site                                      | map showing sa      | ampling point lo   | cations, transects,          | important fe                 | atures, etc.                              |                           |                  |  |
| Hydrophytic Vegetation Present?  | Yes                 |  | Is the Sampled Ar            | ea                           |   |                           |                  |  |
| Hydric Soil Present?   | Yes                 |  | within a Wetland             | ?                            |   | Yes                       |                  |  |
| Wetland Hydrology Present?   | Yes                 |  | If yes, optional We          | etland Site ID:              | : w-47n18w2-aa                            |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |
| HYDROLOGY  |                     |  |                              |                              |   |                           |                  |  |
| Wetland Hydrology Indicators:  |                     |  |                              | <u>,</u>                     | Secondary Indicat                         | ors (minimum              | of two required) |  |
| Primary Indicators (minimum of one is re-                              | quired; check al    | l that apply)  |                              |                              | Surface Soil                              | Cracks (B6)               |                  |  |
| yes Surface Water (A1)   | w                   | Water-Stained Leaves (B9)                                |                              |                              | Drainage Patterns (B10)                   |                           |                  |  |
| High Water Table (A2)  | A                   | Aquatic Fauna (B13)                                      |                              |                              | Moss Trim Lines (B16)                     |                           |                  |  |
| Saturation (A3)  |                     | Marl Deposits (B15)                                      |                              |                              | Dry-Season Water Table (C2)               |                           |                  |  |
| Water Marks (B1)   |                     | Hydrogen Sulfide Odor (C1)                               |                              |                              | Crayfish Burrows (C8)                     |                           |                  |  |
| Sediment Deposits (B2)   |                     | Oxidized Rhizospheres on Living Roots (C3)               |                              |                              | Saturation Visible on Aerial Imagery (C9) |                           |                  |  |
| Drift Deposits (B3)  |                     | Presence of Reduced Iron (C4)                            |                              |                              | Stunted/Stressed Plants (D1)              |                           |                  |  |
| Algal Mat or Crust (B4)  |                     | Recent Iron Reduction in Tilled Soils (C6)               |                              |                              | Yes Geomorphic Position (D2)              |                           |                  |  |
| Iron Deposits (B5)   | TI                  | Thin Muck Surface (C7)                                   |                              |                              | <u>no</u> Shallow Aquitard (D3)           |                           |                  |  |
| Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks)   |                     | narks)   |                              | Microtopographic Relief (D4) |   |                           |                  |  |
| Sparsely Vegetated Concave Surface (B8)                                |                     |  |                              |                              | <u>Yes</u> FAC-Neutral                    | Test (D5)                 |                  |  |
| Field Observations:  | Vee                 |  | 2                            |                              |   |                           |                  |  |
| Surface Water Present?   | Yes                 | Depth (inches)   |                              |                              |   |                           |                  |  |
| Water Table Present?   | Yes                 | Depth (inches)   |                              |                              |   |                           | Voc              |  |
| Saturation Present?  | Yes                 | Depth (inches)   | <u> </u>                     | wetia                        | nd Hydrology Pro                          | esent?                    | Yes              |  |
| (includes capillary fringe)<br>Describe Recorded Data (stream gauge, n | nonitoring well,    | aerial photos, p   | revious inspections          | ), if available:             |   |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |
| Remarks:   |                     |  |                              |                              |   |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |
|  |                     |  |                              |                              |   |                           |                  |  |

## **VEGETATION -** Use scientific names of plants.

Sampling Point: w-47n18w...

|   | Absolute   | Dominant        | Indicator | Dominance Test worksheet:   |
|---|------------|-----------------|-----------|---|
| Tree Stratum (Plot Size: 30                             | _) % Cover | Species?        | Status    | Number of Dominant Species  |
| 1   |            |                 |           | That Are OBL, FACW, or FAC: 1 (A)   |
| 2.  |            |                 |           | Total Number of Dominant  |
| 3   |            |                 | _         | Species Across All Strata: 1 (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:  |
|   | 0          | = Total Cover   |           | OBL species 20.00 x 1 20  |
| Sapling/Shrub Stratum (Plot Size: 15 )                  |            | _               |           | FACW species 45.00 x 2 90   |
| 1   |            |                 |           | FACU species 10.00 x 3 40   |
| 2   |            |                 |           | UPL species 0.00 x 4 0  |
| 3.  |            |                 | _         | Column Totals 80 (A) 165 (B)  |
| 4.  |            |                 | _         | Prevalence Index = $B/A = 2.0625$   |
|   |            |                 | _         | Hydrophytic Vegetation Indicators:  |
| 5   |            |                 |           | 1 - Rapid Test for Hydrophytic Vegetation   |
| 6   |            |                 |           | yes 2 - Dominance Test is > 50%   |
| /   | 0          | - Tatal Causer  |           | yes 3 - Prevalence Index is $\leq 3.0^{1}$  |
| Harb Strature (Dist Size 5                              | <u>.</u>   | _ = Total Cover |           |   |
| Herb Stratum (Plot Size: 5)<br>1. Poa palustris         | 30.00      | Yes             | FACW      | 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)      |
|   | 15.00      | No              | OBL       | –<br>Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  |
| 2. Scirpus atrovirens                                   |            | -               |           | Problematic Hydrophytic Vegetation (Explain)  |
| 3. Calamagrostis canadensis                             | 15.00      | <u>No</u>       | FACW      | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless                        |
| 4. Phleum pratense                                      | 10.00      | <u>No</u>       | FACU      | disturbed or problematic.   |
| 5. Carex comosa   | 5.00       | No              | OBL       | Definitions of Vegetation Strata:   |
| 6. Equisetum arvense                                    | 5.00       | No              | FAC       | 4   |
| 7   |            |                 |           | <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height. |
| 8   |            |                 |           |   |
| 9   |            |                 |           | Sapling/Shrub - Woody plants less than 3 in. DBH and greater than<br>or equal to 3.28 ft (1 m) tall.        |
| 10  |            |                 |           |   |
| 11  |            |                 |           | Herb - All herbaeceous (non-woody) plants, regardless of size, and  |
| 12  |            |                 |           | woody plants less than 3.28 ft tall.  |
|   |            | = Total Cover   |           | Woody vines - All woody vines greater than 3.28 ft in height.   |
| Woody Vine Stratum (Plot Size: 30 )                     |            |                 |           |   |
| 1.  |            |                 |           |   |
| 2.  |            |                 |           | –<br>Hydrophytic  |
|   |            |                 |           | Vegetation<br>Present2 Yes  |
| 3   |            |                 |           | _ Present?  |
| 4   | 0          |                 |           | -   |
|   |            | =Total Cover    |           |   |
| Remarks: (include photo numbers here or on a separate s | sheet.)    |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |
|   |            |                 |           |   |

US Army Corps of Engineers

Northcentral and Northeast Region – Version 2.0

## SOIL

| Sampling Poi | nt: w-47n18w |
|--------------|--------------|
|--------------|--------------|

| Depth  | Matrix  |                    | Redox  | eatures   |                   |                  |  |   |
|--|---|--------------------|--|---|-------------------|------------------|--|---|
| (inches)   | Color (moist)   | %<br>              | Color (moist)  | %   | Type <sup>1</sup> | Loc <sup>2</sup> | Texture  | Remarks   |
|  |   |                    |  | ·   |                   |                  |  |   |
| <sup>1</sup> Type: C=Concer  |   | Reduced Matrix     | , MS=Masked Sand Gr  | <br><br>ains  |                   |                  | Indicators for Pr  | <sup>2</sup> Location: PL=Pore Lining, M=Matri<br>oblematic Hydric Soil <sup>3</sup> :  |
| Histosol (A<br>Histic Epip<br>Black Histi<br>Hydrogen<br>Stratified I<br>Depleted I<br>Thick Dark<br>Sandy Mu<br>Sandy Glee<br>Sandy Red<br>Stripped N | A1)<br>pedon (A2)<br>ic (A3)<br>Sulfide (A4)<br>Layers (A5)<br>Below Dark Surface (A11)<br>& Surface (A12)<br>cky Mineral (S1)<br>yed Matrix (S4)<br>lox (S5) |                    | Polyvalue Below :<br>149B) Thin Dark Surface Loamy Mucky Mi Loamy Gleyed Ma<br>Depleted Matrix Redox Dark Surfa Depleted Dark Surfa Redox Depression | (S9) <b>(LRR</b><br>neral (F1)<br>atrix (F2)<br>(F3)<br>ce (F6)<br>rface (F7) | R, MLRA           | 149B)            | 2 cm Muck Coast Prairi 5 cm Muck Dark Surfac Polyvalue B Thin Dark Su Iron-Magar Piedmont Fl Mesic Spodi | (A10) (LRR K, L, MLRA 149B)<br>ie Redox (A16)(LRR K, L, R)<br>y Peat or Peat (S3) (LRR K, L, R)<br>ee (S7) (LRR K, M)<br>Below Surface (S8) (LRR K, L)<br>uurface (S9) (LRR K, L)<br>nese Masses (F12) (LRR K, L, R)<br>loodplain Soils (F19) (MLRA 149B)<br>ic (TA6) (MLRA 144A, 145, 149B)<br>Material (F21)<br>w Dark Surface (TF12) |
| Remarks:   | (if observed):<br>(inches):<br>ken in road ditch. No digging  | g. Hydric soils a: | ssumed based on vege   | tation and  | l hydrolog        |                  | ydric Soil Present? )  | Yes   |

Site Photograph 1

Sampling Point: w-47n18w2-aa1



Latitude: 46.5863244608478

Longitude: -92.5826246292261

Cowardin Classification: PEM

Circular 39: 1

Remarks:

Direction: North

Eggers & Reed: Seasonally Flooded Basin

## Site Photograph 2

Sampling Point: w-47n18w2-aa1



Latitude: 46.5863247542145

Longitude: -92.5826245454071

Direction: East

Remarks:

Circular 39: 1

Eggers & Reed: Seasonally Flooded Basin