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

| Project/Site: SPP                             | City/County: Aitkin                           |  | Sampling Date: 2016-08-10                      |  |
|---|---|--|--|--|
| Applicant/Owner: Enbridge                     |   | State: Minnesota   | Sampling Point: u-51n26w31-ac1                 |  |
| Investigator(s): ZCW, MGH                     | Section, Townshi                              | p, Range: S31, T51N, R26W                                      | <del>-</del>                                   |  |
| Landform (hillslope, terrace, etc.): Side Slo | ppe   | Local Relief (concave, conve                                   | ex, none): VV Slope (%): 3-7%                  |  |
| Subregion (LRR or MLRA):                      |   | •  | de: -93.67921510 Datum: NAD83                  |  |
| Soil Map Unit Name: 504B                      |   |  | NWI Classification: N/A                        |  |
| Are climatic/hydrologic conditions on the     | site typical for this time of year            | ? (if no explain in Remarks):                                  |  |  |
|   | -   |  |  |  |
| Are Vegetation No , Soil No , or Hydr         | ology No significantly disturb                | ped? Are "Normal Circumsta                                     | nces" present? Yes                             |  |
| Are Vegetation No_, Soil No_, or Hydrol       | logy No naturally problemati                  | c? (If needed, explain any an                                  | nswers in Remarks)                             |  |
|   |   |  |  |  |
| SUMMARY OF FINDINGS - Attach site i           | nap showing sampling point lo                 | cations, transects, importan                                   | t features, etc.                               |  |
| Hydrophytic Vegetation Present?               | <u>No</u>                                     | Is the Sampled Area  |  |  |
| Hydric Soil Present?                          | <u>No</u>                                     | within a Wetland?  | <u>No</u>                                      |  |
| Wetland Hydrology Present?                    | <u>No</u>                                     | If yes, optional Wetland Site                                  | e ID:  |  |
| Remarks: (Explain alternative procedures      |   |  |  |  |
| Climatic conditions are "wet" based on the    | ne results of a WETS analysis.                |  |  |  |
|   |   |  |  |  |
|   |   |  |  |  |
| HYDROLOGY                                     |   |  |  |  |
| Wetland Hydrology Indicators:                 |   |  | Secondary Indicators (minimum of two required) |  |
| Primary Indicators (minimum of one is rec     | quired; 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 Od                           | or (C1)  | Crayfish Burrows (C8)                          |  |
| Sediment Deposits (B2) Oxidized Rhizosphere   |   | on Living Roots (C3) Saturation Visible on Aerial Imagery (C9) |  |  |
| Drift Deposits (B3)                           |   |  | Stunted/Stressed Plants (D1)                   |  |
| Algal Mat or Crust (B4)                       | Algal Mat or Crust (B4) Recent Iron Reduction |  | Geomorphic Position (D2)                       |  |
| Iron Deposits (B5) Thin Muck Surface (C       |   | 27)  | Shallow Aquitard (D3)                          |  |
| Inundation Visible on Aerial Imagery (B7)     | Other (Explain in Rer                         | marks)   | Microtopographic Relief (D4)                   |  |
| Sparsely Vegetated Concave Surface (B8)       |   |  | FAC-Neutral Test (D5)                          |  |
| Field Observations:                           |   |  |  |  |
| Surface Water Present?                        | No Depth (inches)                             |  |  |  |
| Water Table Present?                          | No Depth (inches)                             |  |  |  |
| Saturation Present?                           | No Depth (inches)                             | w  | /etland Hydrology Present? No                  |  |
| (includes capillary fringe)                   |   |  |  |  |
| Describe Recorded Data (stream gauge, m       | ionitoring well, aerial photos, p             | revious inspections), if availa                                | ble:   |  |
|   |   |  |  |  |
| Remarks:                                      |   |  |  |  |
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|   | Absolute | Dominant        | Indicator | Dominance Test worksheet:   |
|---|----------|-----------------|-----------|---|
| Tree Stratum (Plot Size: 30 )   | % Cover  | Species?        | Status    | Number of Dominant Species  |
| 1. Quercus rubra  | 35.00    | Yes             | FACU      | That Are OBL, FACW, or FAC: 1 (A)                                       |
| 2. Acer rubrum  | 15.00    | Yes             | FAC       | Total Number of Dominant  |
| 3. Betula papyrifera  | 15.00    | Yes             | FACU      | Species Across All Strata: 6 (B)  |
| 4.  |          |                 |           | Percent of Dominant Species   |
| 5   | •        | -               | -         | That Are OBL, FACW, or FAC: 16.666666666 (A/B)                          |
|   | -        |                 | · ·       | Prevalence Index worksheet:   |
|   |          | -               |           |   |
| 7   |          |                 | -         | Total % Cover of: Multiply by:  |
|   | 65       | _ = Total Cover |           | OBL species <u>0.00</u> x 1 <u>0</u>                                    |
| Sapling/Shrub Stratum (Plot Size: 15  |          |                 |           | FACW species <u>0.00</u> x 2 <u>0</u>                                   |
| 1. Corylus cornuta  | 60.00    | Yes             | UPL       | FACU species 105.00 x 3 420   |
| 2. Populus tremuloides  | 10.00    | No              | FAC       | UPL species <u>80.00</u> x 4 <u>400</u>                                 |
| 3   |          |                 |           | Column Totals <u>225</u> (A) <u>940</u> (B)                             |
| 4   |          |                 |           | Prevalence Index = B/A = 4.1777777                                      |
| 5   |          |                 |           | Hydrophytic Vegetation Indicators:                                      |
| 6   |          |                 |           | 1 - Rapid Test for Hydrophytic Vegetation                               |
| 7.  |          |                 |           | no 2 - Dominance Test is > 50%  |
|   | 70       | = Total Cover   |           | no $3$ - Prevalence Index is $\leq 3.0^1$                               |
| Herb Stratum (Plot Size: 5  |          | rotal cover     |           | 4 - Morphological Adaptations (Provide                                  |
| 1. Eurybia macrophylla  | 45.00    | Yes             | FACU      | supporting data in Remarks or on a separate sheet)                      |
|   | 20.00    |                 | - TACO    | - 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1- 1-                                |
| 2. Carex woodii   |          | Yes             |           | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)               |
| 3. Clintonia borealis   | 15.00    | No No           | FAC       | Indicators of hydric soil and wetland hydrology must be present, unless |
| 4. Pteridium aquilinum  | 10.00    | No No           | FACU      | disturbed or problematic.   |
| 5   |          |                 |           | Definitions of Vegetation Strata:                                       |
| 6   |          |                 |           | 4   |
| 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       |
| 10  |          |                 |           | or equal to 3.28 ft (1 m) tall.   |
| 10.   |          | _               | _         | Herb - All herbaeceous (non-woody) plants, regardless of size, and      |
| 11.   |          |                 |           | woody plants less than 3.28 ft tall.                                    |
| 12  | -        | -               | -         | -   |
|   | 90       | _ = Total Cover |           | Woody vines - All woody vines greater than 3.28 ft in height.           |
| Woody Vine Stratum (Plot Size: 30   |          |                 |           |   |
| 1   |          |                 |           | _   |
| 2.  |          |                 |           | Hydrophytic   |
| 3.  |          |                 |           | Vegetation Present? No  |
| 4.  |          |                 |           |   |
|   | 0        | =Total Cover    |           | 1   |
| Barranta (include the territoria de la companya de |          | 10tal cover     |           |   |
| Remarks: (include photo numbers here or on a separate sheet   | 1.)      |                 |           |   |
|   |          |                 |           |   |
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|   |          |                 |           |   |

Sampling Point: u-51n26w... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Matrix **Redox Features** Depth Type<sup>1</sup> Loc<sup>2</sup> (inches) Color (moist) % Color (moist) % Texture Remarks 10YR 3 2 0-4 100 FSL 10YR 4 4 4-13 100  $\mathsf{FSL}$ <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) Dark Surface (S7) (LRR R, MLRA 149B) Other (explain in remarks) **✓** Restrictive Layer (if observed): Type: Rock Hydric Soil Present? No Depth (inches): 14

Remarks:

Site Photograph 1 Sampling Point: u-51n26w31-ac1



|                | Shall be to the same of the sa |                          |
|----------------|--|--------------------------|
| Latitude:      | 46.8560590502311   | Cowardin Classification: |
| Longitude:     | -93.6791891233005  | Circular 39:             |
| Direction: Wes | st   | Eggers & Reed:           |
| Remarks:       |  |                          |
| Upland         |  |                          |
|                |  |                          |
|                |  |                          |
|                |  |                          |
|                |  |                          |
|                |  |                          |

Site Photograph 2 Sampling Point: <u>u-51n26w31-ac1</u>



| Latitude: 46.8560556555603   | Cowardin Classification: |  |  |
|------------------------------|--------------------------|--|--|
| Longitude: -93.6791952420898 | Circular 39:             |  |  |
| Direction: North             | Eggers & Reed:           |  |  |
| Remarks:                     |                          |  |  |
| Upland                       |                          |  |  |
|                              |                          |  |  |
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