

# WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Wadena Sampling Date: 2015-06-30  
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: WA004\_200b1W  
 Investigator(s): BCS/BEH Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): CC Slope (%): 0-2  
 Subregion (LRR or MLRA): LRR K Latitude: 46.7979595 Longitude: -94.9109333 Datum: Minnesota State ...  
 Soil Map Unit Name: 834 NWI Classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? (if no, explain in Remarks): Yes  
 Are Vegetation No, Soil No, or Hydrology No significantly disturbed? Are "Normal Circumstances" present? Yes  
 Are Vegetation No, Soil No, or Hydrology No naturally problematic? (If needed, explain any answers in Remarks)

## SUMMARY OF FINDINGS - Attach site map showing sampling point locations, transects, important features, etc.

|                                                                                                                                                                                                                                  |            |                                                                                                                  |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|------------------------------------------------------------------------------------------------------------------|
| Hydrophytic Vegetation Present?                                                                                                                                                                                                  | <u>Yes</u> | <b>Is the Sampled Area</b><br><br><b>within a Wetland?</b> <u>Yes</u><br>If yes, optional Wetland Site ID: _____ |
| Hydric Soil Present?                                                                                                                                                                                                             | <u>Yes</u> |                                                                                                                  |
| Wetland Hydrology Present?                                                                                                                                                                                                       | <u>Yes</u> |                                                                                                                  |
| Remarks: (Explain alternative procedures here or in a separate report.)<br>The wetland is a Shrub-Carr community dominated by meadow willow, speckled alder, and lake sedge and located in a depression within a large fire-d... |            |                                                                                                                  |

## HYDROLOGY

| Wetland Hydrology Indicators:                                                                                                                                                                                                            |                                                      | Secondary Indicators (minimum of two required)      |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------|-----------------------------------------------------|--|
| Primary Indicators (minimum of one is required; check all that apply)                                                                                                                                                                    |                                                      |                                                     |  |
| <u>no</u> Surface Water (A1)                                                                                                                                                                                                             | <u>no</u> Water-Stained Leaves (B9)                  | <u>no</u> Surface Soil Cracks (B6)                  |  |
| <u>yes</u> High Water Table (A2)                                                                                                                                                                                                         | <u>no</u> Aquatic Fauna (B13)                        | <u>no</u> Drainage Patterns (B10)                   |  |
| <u>yes</u> Saturation (A3)                                                                                                                                                                                                               | <u>no</u> Marl Deposits (B15)                        | <u>no</u> Moss Trim Lines (B16)                     |  |
| <u>no</u> Water Marks (B1)                                                                                                                                                                                                               | <u>no</u> Hydrogen Sulfide Odor (C1)                 | <u>no</u> Dry-Season Water Table (C2)               |  |
| <u>no</u> Sediment Deposits (B2)                                                                                                                                                                                                         | <u>no</u> Oxidized Rhizospheres on Living Roots (C3) | <u>no</u> Crayfish Burrows (C8)                     |  |
| <u>no</u> Drift Deposits (B3)                                                                                                                                                                                                            | <u>no</u> Presence of Reduced Iron (C4)              | <u>no</u> Saturation Visible on Aerial Imagery (C9) |  |
| <u>no</u> Algal Mat or Crust (B4)                                                                                                                                                                                                        | <u>no</u> Recent Iron Reduction in Tilled Soils (C6) | <u>yes</u> Stunted/Stressed Plants (D1)             |  |
| <u>no</u> Iron Deposits (B5)                                                                                                                                                                                                             | <u>no</u> Thin Muck Surface (C7)                     | <u>yes</u> Geomorphic Position (D2)                 |  |
| <u>no</u> Inundation Visible on Aerial Imagery (B7)                                                                                                                                                                                      | <u>no</u> Other (Explain in Remarks)                 | <u>no</u> Shallow Aquitard (D3)                     |  |
| <u>no</u> Sparsely Vegetated Concave Surface (B8)                                                                                                                                                                                        |                                                      | <u>no</u> Microtopographic Relief (D4)              |  |
|                                                                                                                                                                                                                                          |                                                      | <u>yes</u> FAC-Neutral Test (D5)                    |  |
| <b>Field Observations:</b><br>Surface Water Present? <u>No</u> Depth (inches) _____<br>Water Table Present? <u>Yes</u> Depth (inches) <u>16</u><br>Saturation Present? <u>Yes</u> Depth (inches) <u>2</u><br>(includes capillary fringe) |                                                      | <b>Wetland Hydrology Present?</b> <u>Yes</u>        |  |
| Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:                                                                                                                               |                                                      |                                                     |  |
| Remarks:<br>The water table is present at 16 inches and rising; saturation is present at 2 inches. The sample point is located in a depression and passes the FAC-Neut...                                                                |                                                      |                                                     |  |

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

 Sampling Point: WA004\_2...

|                                                                                | Absolute<br>% Cover | Dominant<br>Species? | Indicator<br>Status |                                                                                                                |
|--------------------------------------------------------------------------------|---------------------|----------------------|---------------------|----------------------------------------------------------------------------------------------------------------|
| <u>Tree Stratum</u> (Plot Size: <u>30 ft</u> )                                 |                     |                      |                     | <b>Dominance Test worksheet:</b>                                                                               |
| 1. <u>Populus tremuloides</u>                                                  | <u>10.00</u>        | <u>Yes</u>           | <u>FACU</u>         | Number of Dominant Species                                                                                     |
| 2. <u>Ulmus americana</u>                                                      | <u>5.00</u>         | <u>Yes</u>           | <u>FACW</u>         | That Are OBL, FACW, or FAC: <u>4</u> (A)                                                                       |
| 3. _____                                                                       | _____               | _____                | _____               | Total Number of Dominant                                                                                       |
| 4. _____                                                                       | _____               | _____                | _____               | <u>5</u>                                                                                                       |
| 5. _____                                                                       | _____               | _____                | _____               | Species Across All Strata: _____ (B)                                                                           |
| 6. _____                                                                       | _____               | _____                | _____               | Percent of Dominant Species                                                                                    |
| 7. _____                                                                       | _____               | _____                | _____               | <u>80</u>                                                                                                      |
|                                                                                | <u>15</u>           | <u>= Total Cover</u> |                     | That Are OBL, FACW, or FAC: _____ (A/B)                                                                        |
| <u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft</u> )                        |                     |                      |                     | <b>Prevalence Index worksheet:</b>                                                                             |
| 1. <u>Salix petiolaris</u>                                                     | <u>20.00</u>        | <u>Yes</u>           | <u>FACW</u>         | Total % Cover of: _____ Multiply by: _____                                                                     |
| 2. <u>Alnus incana</u>                                                         | <u>10.00</u>        | <u>Yes</u>           | <u>FACW</u>         | OBL species <u>62.00</u> x 1 <u>62</u>                                                                         |
| 3. <u>Salix bebbiana</u>                                                       | <u>5.00</u>         | <u>No</u>            | <u>FACW</u>         | FACW species <u>66.00</u> x 2 <u>132</u>                                                                       |
| 4. <u>Salix discolor</u>                                                       | <u>5.00</u>         | <u>No</u>            | <u>FACW</u>         | FACU species <u>0.00</u> x 3 <u>48</u>                                                                         |
| 5. _____                                                                       | _____               | _____                | _____               | UPL species <u>0.00</u> x 4 <u>0</u>                                                                           |
| 6. _____                                                                       | _____               | _____                | _____               | Column Totals <u>140</u> (A) <u>242</u> (B)                                                                    |
| 7. _____                                                                       | _____               | _____                | _____               | Prevalence Index = B/A = <u>1.7285714...</u>                                                                   |
|                                                                                | <u>40</u>           | <u>= Total Cover</u> |                     |                                                                                                                |
| <u>Herb Stratum</u> (Plot Size: <u>5 ft</u> )                                  |                     |                      |                     | <b>Hydrophytic Vegetation Indicators:</b>                                                                      |
| 1. <u>Carex lacustris</u>                                                      | <u>50.00</u>        | <u>Yes</u>           | <u>OBL</u>          | _____ 1 - Rapid Test for Hydrophytic Vegetation                                                                |
| 2. <u>Cornus alba</u>                                                          | <u>10.00</u>        | <u>No</u>            | <u>FACW</u>         | <u>yes</u> 2 - Dominance Test is > 50%                                                                         |
| 3. <u>Persicaria amphibia</u>                                                  | <u>10.00</u>        | <u>No</u>            | <u>OBL</u>          | <u>yes</u> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>                                                          |
| 4. <u>Stellaria longifolia</u>                                                 | <u>5.00</u>         | <u>No</u>            | <u>FACW</u>         | _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)   |
| 5. <u>Fraxinus nigra</u>                                                       | <u>2.00</u>         | <u>No</u>            | <u>FACW</u>         | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                      |
| 6. <u>Geum macrophyllum</u>                                                    | <u>2.00</u>         | <u>No</u>            | <u>FACW</u>         | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 7. <u>Mentha arvensis</u>                                                      | <u>2.00</u>         | <u>No</u>            | <u>FACW</u>         | <b>Definitions of Vegetation Strata:</b>                                                                       |
| 8. <u>Stachys palustris</u>                                                    | <u>2.00</u>         | <u>No</u>            | <u>OBL</u>          | <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.    |
| 9. <u>Rosa arkansana</u>                                                       | <u>2.00</u>         | <u>No</u>            | <u>FACU</u>         | <b>Sapling/Shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.       |
| 10. _____                                                                      | _____               | _____                | _____               | <b>Herb</b> - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 11. _____                                                                      | _____               | _____                | _____               | <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                                           |
| 12. _____                                                                      | _____               | _____                | _____               |                                                                                                                |
|                                                                                | <u>85</u>           | <u>= Total Cover</u> |                     |                                                                                                                |
| <u>Woody Vine Stratum</u> (Plot Size: _____ )                                  |                     |                      |                     | <b>Hydrophytic Vegetation Present?</b> _____                                                                   |
| 1. _____                                                                       | _____               | _____                | _____               |                                                                                                                |
| 2. _____                                                                       | _____               | _____                | _____               |                                                                                                                |
| 3. _____                                                                       | _____               | _____                | _____               |                                                                                                                |
| 4. _____                                                                       | _____               | _____                | _____               |                                                                                                                |
|                                                                                | <u>0</u>            | <u>=Total Cover</u>  |                     |                                                                                                                |
| <b>Remarks:</b> (include photo numbers here or on a separate sheet.)           |                     |                      |                     |                                                                                                                |
| The sample area is dominated by meadow willow, speckled alder, and lake sedge. |                     |                      |                     |                                                                                                                |

## SOIL

Sampling Point: WA004\_2...

**Profile Description:** (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

[illegible]<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

| Hydric Soil Indicators:                                                                                                                                                                 |                                                                                   | Indicators for Problematic Hydric Soil <sup>3</sup> :                         |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------|
| <input type="checkbox"/> Histosol (A1)                                                                                                                                                  | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR R, MLRA 149B</b> ) | <input type="checkbox"/> 2 cm Muck (A10) ( <b>LRR K, L, MLRA 149B</b> )       |
| <input type="checkbox"/> Histic Epipedon (A2)                                                                                                                                           | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR R, MLRA 149B</b> )       | <input type="checkbox"/> Coast Prairie Redox (A16)( <b>LRR K, L, R</b> )      |
| <input checked="" type="checkbox"/> Black Histic (A3)                                                                                                                                   | <input type="checkbox"/> Loamy Mucky Mineral (F1) ( <b>LRR K, L</b> )             | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) ( <b>LRR K, L, R</b> )  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                                                                                                                                          | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                                 | <input type="checkbox"/> Dark Surface (S7) ( <b>LRR K, M</b> )                |
| <input type="checkbox"/> Stratified Layers (A5)                                                                                                                                         | <input type="checkbox"/> Depleted Matrix (F3)                                     | <input type="checkbox"/> Polyvalue Below Surface (S8) ( <b>LRR K, L</b> )     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)                                                                                                                              | <input type="checkbox"/> Redox Dark Surface (F6)                                  | <input type="checkbox"/> Thin Dark Surface (S9) ( <b>LRR K, L</b> )           |
| <input type="checkbox"/> Thick Dark Surface (A12)                                                                                                                                       | <input type="checkbox"/> Depleted Dark Surface (F7)                               | <input type="checkbox"/> Iron-Manganese Masses (F12) ( <b>LRR K, L, R</b> )   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                                                                                                                                       | <input type="checkbox"/> Redox Depressions (F8)                                   | <input type="checkbox"/> Piedmont Floodplain Soils (F19) ( <b>MLRA 149B</b> ) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                                                                                                                                       |                                                                                   | <input type="checkbox"/> Mesic Spodic (TA6) ( <b>MLRA 144A, 145, 149B</b> )   |
| <input type="checkbox"/> Sandy Redox (S5)                                                                                                                                               |                                                                                   | <input type="checkbox"/> Red Parent Material (F21)                            |
| <input type="checkbox"/> Stripped Matrix (S6)                                                                                                                                           |                                                                                   | <input type="checkbox"/> Very Shallow Dark Surface (TF12)                     |
| <input type="checkbox"/> Dark Surface (S7) ( <b>LRR R, MLRA 149B</b> )                                                                                                                  |                                                                                   | <input type="checkbox"/> Other (explain in remarks)                           |
| Restrictive Layer (if observed): <input type="checkbox"/><br>Type: _____<br>Depth (inches): _____                                                                                       |                                                                                   | Hydric Soil Present? <u>Yes</u>                                               |
| Remarks:<br><br>The observed profile consists of black muck underlain by dark loamy sand over depleted loamy sand with 5% redox concentrations. Soil meets indicator A3 - Black Histic. |                                                                                   |                                                                               |