

# WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP City/County: Hubbard Sampling Date: 2015-06-29  
 Applicant/Owner: Enbridge State: Minnesota Sampling Point: HUC5034\_200a2W  
 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: 47.1844264 Longitude: -95.1300915 Datum: Minnesota State ...  
 Soil Map Unit Name: 526E NWI Classification: PSS1B

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><b>within a Wetland?</b><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 speckled alder thicket which transitions into a hardwood swamp and is located within a larger mesic hardwood forest. |            |                                                                                                   |

## HYDROLOGY

| Wetland Hydrology Indicators:                                                                                                                                                                                                                  |                                                         | Secondary Indicators (minimum of two required)         |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|--------------------------------------------------------|--|
| Primary Indicators (minimum of one is required; check all that apply)                                                                                                                                                                          |                                                         |                                                        |  |
| <u>_____</u> Surface Water (A1)                                                                                                                                                                                                                | <u>_____</u> Water-Stained Leaves (B9)                  | <u>_____</u> Surface Soil Cracks (B6)                  |  |
| <u>yes</u> High Water Table (A2)                                                                                                                                                                                                               | <u>_____</u> Aquatic Fauna (B13)                        | <u>_____</u> Drainage Patterns (B10)                   |  |
| <u>yes</u> Saturation (A3)                                                                                                                                                                                                                     | <u>_____</u> Marl Deposits (B15)                        | <u>_____</u> Moss Trim Lines (B16)                     |  |
| <u>_____</u> Water Marks (B1)                                                                                                                                                                                                                  | <u>_____</u> Hydrogen Sulfide Odor (C1)                 | <u>_____</u> Dry-Season Water Table (C2)               |  |
| <u>_____</u> Sediment Deposits (B2)                                                                                                                                                                                                            | <u>_____</u> Oxidized Rhizospheres on Living Roots (C3) | <u>_____</u> Crayfish Burrows (C8)                     |  |
| <u>_____</u> Drift Deposits (B3)                                                                                                                                                                                                               | <u>_____</u> Presence of Reduced Iron (C4)              | <u>_____</u> Saturation Visible on Aerial Imagery (C9) |  |
| <u>_____</u> Algal Mat or Crust (B4)                                                                                                                                                                                                           | <u>_____</u> Recent Iron Reduction in Tilled Soils (C6) | <u>_____</u> Stunted/Stressed Plants (D1)              |  |
| <u>_____</u> Iron Deposits (B5)                                                                                                                                                                                                                | <u>_____</u> Thin Muck Surface (C7)                     | <u>yes</u> Geomorphic Position (D2)                    |  |
| <u>_____</u> Inundation Visible on Aerial Imagery (B7)                                                                                                                                                                                         | <u>_____</u> Other (Explain in Remarks)                 | <u>_____</u> Shallow Aquitard (D3)                     |  |
| <u>yes</u> Sparsely Vegetated Concave Surface (B8)                                                                                                                                                                                             |                                                         | <u>_____</u> Microtopographic Relief (D4)              |  |
|                                                                                                                                                                                                                                                |                                                         | <u>yes</u> FAC-Neutral Test (D5)                       |  |
| <b>Field Observations:</b><br>Surface Water Present? <u>No</u> Depth (inches) <u>_____</u><br>Water Table Present? <u>Yes</u> Depth (inches) <u>5</u><br>Saturation Present? <u>Yes</u> Depth (inches) <u>0</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>A high water table is present at 5 inches; soil is saturated to the surface.                                                                                                                                                       |                                                         |                                                        |  |

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

 Sampling Point: HUC5034\_...

|                                                                                                                                                                                      | 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>Fraxinus pennsylvanica</u>                                                                                                                                                     | <u>10.00</u>        | <u>Yes</u>           | <u>FACW</u>         | Number of Dominant Species                                                                                     |
| 2. <u>Populus tremuloides</u>                                                                                                                                                        | <u>2.00</u>         | <u>No</u>            | <u>FACU</u>         | That Are OBL, FACW, or FAC: <u>5</u> (A)                                                                       |
| 3. _____                                                                                                                                                                             | _____               | _____                | _____               | Total Number of Dominant                                                                                       |
| 4. _____                                                                                                                                                                             | _____               | _____                | _____               | <u>5</u>                                                                                                       |
| 5. _____                                                                                                                                                                             | _____               | _____                | _____               | Species Across All Strata: _____ (B)                                                                           |
| 6. _____                                                                                                                                                                             | _____               | _____                | _____               | Percent of Dominant Species                                                                                    |
| 7. _____                                                                                                                                                                             | _____               | _____                | _____               | That Are OBL, FACW, or FAC: <u>100</u> (A/B)                                                                   |
|                                                                                                                                                                                      | <u>12</u>           | = Total Cover        |                     | <b>Prevalence Index worksheet:</b>                                                                             |
| <u>Sapling/Shrub Stratum</u> (Plot Size: <u>15 ft</u> )                                                                                                                              |                     |                      |                     | Total % Cover of: _____ Multiply by: _____                                                                     |
| 1. <u>Alnus incana</u>                                                                                                                                                               | <u>35.00</u>        | <u>Yes</u>           | <u>FACW</u>         | OBL species <u>17.00</u> x 1 <u>17</u>                                                                         |
| 2. _____                                                                                                                                                                             | _____               | _____                | _____               | FACW species <u>75.00</u> x 2 <u>150</u>                                                                       |
| 3. _____                                                                                                                                                                             | _____               | _____                | _____               | FACU species <u>0.00</u> x 3 <u>8</u>                                                                          |
| 4. _____                                                                                                                                                                             | _____               | _____                | _____               | UPL species <u>0.00</u> x 4 <u>0</u>                                                                           |
| 5. _____                                                                                                                                                                             | _____               | _____                | _____               | Column Totals <u>94</u> (A) <u>175</u> (B)                                                                     |
| 6. _____                                                                                                                                                                             | _____               | _____                | _____               | Prevalence Index = B/A = <u>1.8617021...</u>                                                                   |
| 7. _____                                                                                                                                                                             | _____               | _____                | _____               | <b>Hydrophytic Vegetation Indicators:</b>                                                                      |
|                                                                                                                                                                                      | <u>35</u>           | = Total Cover        |                     | <u>yes</u> 1 - Rapid Test for Hydrophytic Vegetation                                                           |
|                                                                                                                                                                                      |                     |                      |                     | <u>yes</u> 2 - Dominance Test is > 50%                                                                         |
|                                                                                                                                                                                      |                     |                      |                     | <u>yes</u> 3 - Prevalence Index is ≤ 3.0 <sup>1</sup>                                                          |
|                                                                                                                                                                                      |                     |                      |                     | _____ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)   |
| <u>Herb Stratum</u> (Plot Size: <u>5 ft</u> )                                                                                                                                        |                     |                      |                     | Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)                                                      |
| 1. <u>Rubus pubescens</u>                                                                                                                                                            | <u>10.00</u>        | <u>Yes</u>           | <u>FACW</u>         | <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. |
| 2. <u>Carex lacustris</u>                                                                                                                                                            | <u>10.00</u>        | <u>Yes</u>           | <u>OBL</u>          |                                                                                                                |
| 3. <u>Equisetum sylvaticum</u>                                                                                                                                                       | <u>10.00</u>        | <u>Yes</u>           | <u>FACW</u>         |                                                                                                                |
| 4. <u>Impatiens capensis</u>                                                                                                                                                         | <u>5.00</u>         | <u>No</u>            | <u>FACW</u>         |                                                                                                                |
| 5. <u>Caltha palustris</u>                                                                                                                                                           | <u>5.00</u>         | <u>No</u>            | <u>OBL</u>          |                                                                                                                |
| 6. <u>Equisetum pratense</u>                                                                                                                                                         | <u>5.00</u>         | <u>No</u>            | <u>FACW</u>         |                                                                                                                |
| 7. <u>Calamagrostis canadensis</u>                                                                                                                                                   | <u>2.00</u>         | <u>No</u>            | <u>OBL</u>          |                                                                                                                |
| 8. _____                                                                                                                                                                             | _____               | _____                | _____               | <b>Definitions of Vegetation Strata:</b>                                                                       |
| 9. _____                                                                                                                                                                             | _____               | _____                | _____               | <b>Tree</b> - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.    |
| 10. _____                                                                                                                                                                            | _____               | _____                | _____               | <b>Sapling/Shrub</b> - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.       |
| 11. _____                                                                                                                                                                            | _____               | _____                | _____               | <b>Herb</b> - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. |
| 12. _____                                                                                                                                                                            | _____               | _____                | _____               | <b>Woody vines</b> - All woody vines greater than 3.28 ft in height.                                           |
|                                                                                                                                                                                      | <u>47</u>           | = Total Cover        |                     |                                                                                                                |
| <u>Woody Vine Stratum</u> (Plot Size: _____ )                                                                                                                                        |                     |                      |                     | <b>Hydrophytic Vegetation Present?</b> _____                                                                   |
| 1. _____                                                                                                                                                                             | _____               | _____                | _____               |                                                                                                                |
| 2. _____                                                                                                                                                                             | _____               | _____                | _____               |                                                                                                                |
| 3. _____                                                                                                                                                                             | _____               | _____                | _____               |                                                                                                                |
| 4. _____                                                                                                                                                                             | _____               | _____                | _____               |                                                                                                                |
|                                                                                                                                                                                      | <u>0</u>            | =Total Cover         |                     |                                                                                                                |
| <b>Remarks:</b> (include photo numbers here or on a separate sheet.)                                                                                                                 |                     |                      |                     |                                                                                                                |
| The sample area is dominated by green ash in the tree stratum, speckled alder in the shrub stratum, and dwarf red raspberry, lake sedge, and woodland horsetail in the herb stratum. |                     |                      |                     |                                                                                                                |

## SOIL

Sampling Point: HUC5034\_...

**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 checked="" 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"/>                                                                                                                                                        | Hydric Soil Present? <u>Yes</u>                                                   |                                                                               |
| Type: _____<br>Depth (inches): _____                                                                                                                                                                             |                                                                                   |                                                                               |
| Remarks:                                                                                                                                                                                                         |                                                                                   |                                                                               |
| The observed soil profile consists of a layer of muck underlain by a mucky mineral layer over a depleted loamy coarse sand. The soil meets indicators A3 and A11 - Black Histic and Depleted Below Dark Surface. |                                                                                   |                                                                               |