WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

| Project/Site: RSA 22 | | City/Co | ounty: Aitkin | Sampling | Date: 22-Aug-17 |
|--|----------------------|--|---------------------------------------|---|------------------------|
| Applicant/Owner: Enbridge | | | State: MN | Sampling Point: | w-51n26w33-b3 |
| Investigator(s): DPT/SMR | | Sec | tion, Township, Range: | s. 33 t. 51N | R. 26W |
| Landform (hillslope, terrace, e | etc.): Lowland | Local re | elief (concave, convex, n | one): concave | Slope: 0.0 % / 0.0 ° |
| Subregion (LRR or MLRA): | LRR K | Lat.: 46 51.8 | 526 Long | · : -93 38.434 | Datum: NAD 83 |
| Soil Map Unit Name: B147A | | | | NWI classification: | N/A |
| Are climatic/hydrologic condi | tions on the site ty | pical for this time of year? | Yes ○ No ● | — (If no, explain in Remarks. |) |
| Are Vegetation, Soil | , or Hydrold | | bed? Are "Normal | Circumstances" present? | Yes ● No ○ |
| Are Vegetation, Soil | , or Hydrold | ogy naturally problema | atic? (If needed, e | xplain any answers in Rem | arks.) |
| | s - Attach site | map showing sampli | ` , | • | • |
| Hydrophytic Vegetation Pres | | No O | | | |
| Hydric Soil Present? | Yes 💿 | No O | Is the Sampled Area within a Wetland? | Yes No | |
| Wetland Hydrology Present? | Yes | No O | | | |
| Remarks: (Explain alternati | ve procedures here | or in a separate report.) | | | |
| Hydrology | | | | | |
| Wetland Hydrology Indicato | rs: | | | Secondary Indicators (minimu | ım of 2 required) |
| Primary Indicators (minimum | | check all that apply) | | Surface Soil Cracks (B6) | in of 2 regalica, |
| Surface Water (A1) | | Water-Stained Leaves (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 Odor (C1) | | Crayfish Burrows (C8) | |
| Sediment Deposits (B2) | | Oxidized Rhizospheres along | | Saturation Visible on Aeri | |
| ☐ Drift deposits (B3)☐ Algal Mat or Crust (B4) | | Presence of Reduced Iron (| • | Stunted or Stressed Plant Geomorphic Position (D2) | • • |
| Iron Deposits (B5) | | Recent Iron Reduction in Til Thin Muck Surface (C7) | lled Soils (C6) | Shallow Aguitard (D3) |) |
| Inundation Visible on Aerial | Imagery (B7) | Other (Explain in Remarks) | | Microtopographic Relief (| D4) |
| Sparsely Vegetated Concave | | Utilei (Explain in Normano, | | FAC-neutral Test (D5) | , |
| Field Observations: | | | | | |
| Surface Water Present? | Yes No | Depth (inches): 2 | <u>!</u> | | |
| Water Table Present? | Yes No | Depth (inches):0 | | 6 | |
| Saturation Present? (includes capillary fringe) | Yes • No O | Depth (inches):0 | | ology Present? Yes • |) No () |
| Describe Recorded Data (str | eam gauge, monito | oring well, aerial photos, previ | ous inspections), if avail | able: | |
| | | | | | |
| Remarks: | | | | | |
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VEGETATION - Use scientific names of plants

| (5) | Absolute | Dominant | Indicator | Dominance Test worksheet: | | |
|---|----------|--------------|-----------|---|--|--|
| Tree Stratum (Plot size: 30) | % Cover | Species? | Status | Number of Dominant Species | | |
| 1 | 0 | | | That are OBL, FACW, or FAC:3(A) | | |
| 2 | | | | | | |
| 3 | | | | Total Number of Dominant | | |
| 4 | | | | Species Across All Strata:3(B) | | |
| | | | | Percent of dominant Species | | |
| 5 | | | | That Are OBL, FACW, or FAC: 100.0% (A/B) | | |
| 6 | | | | | | |
| 7 | 0 | | | Prevalence Index worksheet: | | |
| Sapling/Shrub Stratum (Plot size: 15) | 0 = | = Total Cove | r | Total % Cover of: Multiply by: | | |
| | 70 | | FACW | 0BL speci es <u>100</u> x 1 = <u>100</u> | | |
| 1 Alnus incana | | ✓ | FACW | FACW species | | |
| 2 | | | | FAC speciles0 x 3 =0 | | |
| 3 | | | | FACU species 0 x 4 = 0 | | |
| 4 | 0 | | | · · | | |
| 5 | 0 | | | · · · · · · · · · · · · · · · · · · · | | |
| 6 | 0 | | | Column Totals: <u>170</u> (A) <u>240</u> (B) | | |
| 7 | 0 | | | Prevalence Index = B/A =1.412 | | |
| | 70 = | = Total Cove | | | | |
| Herb Stratum (Plot size: 5 | | | | Hydrophytic Vegetation Indicators: | | |
| 1 Calamagrostis canadensis | 40 | ✓ | OBL | Rapid Test for Hydrophytic Vegetation | | |
| 0.0 | | ✓ | OBL | ✓ Dominance Test is > 50% | | |
| | | | ODL | ✓ Prevalence Index is ≤3.0 ¹ | | |
| 3 | | | | $oxedsymbol{oxed}$ Morphological Adaptations 1 (Provide supporting | | |
| 4 | | | | data in Remarks or on a separate sheet) | | |
| 5 | | | | Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| 6 | 0 | | | | | |
| 7 | 0 | | | Indicators of hydric soil and wetland hydrology must | | |
| 8 | | | | be present, unless disturbed or problematic. | | |
| 9 | | | | Definitions of Vegetation Strata: | | |
| 10 | | | | Trace Woody plants 2 in (7.6 cm) or mare in diameter | | |
| 11 | | | | Tree - Woody plants, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | at broadt Holgrit (BBH), rogardiood of Holgrit. | | |
| 12 | | | | Sapling/shrub - Woody plants less than 3 in. DBH and | | |
| Woody Vine Stratum (Plot size: _30) | 100 = | = Total Cove | r | greater than 3.28 ft (1m) tall | | |
| | 0 | | | Herb - All herbaceous (non-woody) plants, regardless of | | |
| 1 | 0 | | | size, and woody plants less than 3.28 ft tall. | | |
| 2 | | | | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | | |
| 3 | | | | Woody vine - All woody vines greater than 3.28 ft in | | |
| 4 | | | | height. | | |
| | 0 = | = Total Cove | r | | | |
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| | | | | | | |
| | | | | Hydrophytic | | |
| | | | | Vegetation Present? Yes No | | |
| | | | | Present: | | |
| | | | | | | |
| Remarks: (Include photo numbers here or on a separate she | et.) | | | | | |
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Sampling Point: w-51n26w33-b3

^{*}Indicator suffix = National status or professional decision assigned because Regional status not defined by FWS.

Soil Sampling Point: w-51n26w33-b3

| Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) | | | | | | | | | | | |
|---|---------------|-----------------|------------|----------------------|---|-------------------|-----------------------|---|-------------------------|--|--|
| Depth | | Matrix | | | Redox Featu | | | _ | | | |
| (inches) | Color | (moist) | % | Color (moist) | % | Type ¹ | Loc2 | Texture | Remarks | | |
| 0-24 | 10YR | 2/2 | 100 | | | | | Peat | | | |
| | | | | | | | | | | | |
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| ¹ Type: C=Cond | centration. [| - D=Depletio | n. RM=Red | luced Matrix, CS=Cov | ered or Coat | ed Sand Gra | ins ² Loca | ation: PL=Pore Lining. M=N | | | |
| Hydric Soil I | | • | | | | | | | | | |
| Histosol (| | | | Polyvalue Be | low Surface | (S8) (LRR R | | | ematic Hydric Soils: 3 | | |
| | pedon (A2) | | | MLRA 149B) | | (00) (2 | , | | (LRR K, L, MLRA 149B) | | |
| Black Hist | | | | Thin Dark Su | ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) | | | ox (A16) (LRR K, L, R) | | | |
| | Sulfide (A4) |) | | Loamy Muck | ky Mineral (F1) LRR K, L) | | | | | | |
| | Layers (A5) | • | | Loamy Gleye | ed Matrix (F2) |) | | Dark Surface (S7) | | | |
| | Below Dark | Surface (A | 11) | Depleted Ma | trix (F3) | | | | Surface (S8) (LRR K, L) | | |
| | k Surface (A | | , | Redox Dark | Surface (F6) | | | ☐ Thin Dark Surface | | | |
| | ıck Mineral (| | | Depleted Da | rk Surface (F | 7) | | ☐ Iron-Manganese Masses (F12) (LRR K, L, R) | | | |
| | eyed Matrix | | | Redox Depre | essions (F8) | | | Piedmont Floodplain Soils (F19) (MLRA 149B) | | | |
| Sandy Red | | () | | | | | | Mesic Spodic (TA6) (MLRA 144A, 145, 149B) | | | |
| | Matrix (S6) | | | | | | | Red Parent Material (F21) | | | |
| | ace (S7) (LR | R R, MLRA | 149B) | | | | | ✓ Very Shallow Dark Surface (TF12)✓ Other (Explain in Remarks) | | | |
| | | | | | | | | | Remarks) | | |
| | | | n and wett | and hydrology must b | e present, ur | iless disturb | ea or proble | ematic. | | | |
| Restrictive La | ayer (if ob | served): | | | | | | | | | |
| Type: | | | | | | | | Hydric Soil Present? | Yes ● No ○ | | |
| Depth (inch | hes): | | | | | | | nyuric son Present? | Yes No | | |
| Remarks: | | | | | | | | | | | |
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