| WETLA | ND DETEF | RMINATION DATA F | ORM - North Central | and Northeast Reg | ion | |
|---|----------------------------|--|---|----------------------------|--|--|
| Project/Site: SPP | City/County: <u>Aitkin</u> | | | Sampling Date: 2016-08-29 | | |
| Applicant/Owner: Enbridge | | | State: Minnesota | Sam | pling Point: <u>w-47n22w11-aa1</u> | |
| Investigator(s): DPT, MGH | | Section, Townshi | p, Range: <u>S11, T47N, R22</u> | 2W | | |
| Landform (hillslope, terrace, etc.): Depres | sion | | Local Relief (concave, co | onvex, none): <u>CL</u> | Slope (%): <u>0-2%</u> | |
| Subregion (LRR or MLRA): | | Latitude: 46 | 5.568627120039 Lon | gitude: <u>-93.0792650</u> | 4 Datum: <u>NAD83</u> | |
| Soil Map Unit Name: 736 | | | | NWI | Classification: N/A | |
| Are climatic/hydrologic conditions on the | site typica | al for this time of year | ? (if no, explain in Remar | ks): | No | |
| Are Vegetation <u>No</u> , Soil <u>No</u> , or Hyd | rology <u>No</u> | significantly disturb | oed? Are "Normal Circun | nstances" present? Y | es | |
| Are Vegetation <u>No</u> , Soil <u>No</u> , or Hydrology <u>No</u> naturally problematic? (If needed, explain any answers in Remarks) | | | | | | |
| SUMMARY OF FINDINGS - Attach site | map show | ving sampling point lo | cations, transects, impo | rtant features, etc. | | |
| Hydrophytic Vegetation Present? | | Yes | Is the Sampled Area | | | |
| Hydric Soil Present? | | Yes | within a Wetland? | | Yes | |
| Wetland Hydrology Present? | | Yes | If yes, optional Wetland | Site ID: | w-47n22w11-aa | |
| Remarks: (Explain alternative procedure | s here or ir | n a separate report.) | • | | | |
| Existing forest road, no digging, potentia | | | | | | |
| Wetland Hydrology Indicators: | | | | Secondary Inc | dicators (minimum of two required) | |
| | quirad: ch | ock all that apply) | | | | |
| Primary Indicators (minimum of one is re yes Surface Water (A1) | <u>quirea; chi</u> | · · · · · · · · | ec (BO) | | e Soil Cracks (B6) | |
| High Water Table (A2) | _ | Water-Stained Leave Aquatic Fauna (B13) | 3 (65) | | Drainage Patterns (B10) Moss Trim Lines (B16) | |
| Saturation (A3) | _ | Marl Deposits (B15) | | ason Water Table (C2) | | |
| Water Marks (B1) | | | or (C1) | n Burrows (C8) | | |
| Sediment Deposits (B2) | | | es on Living Roots (C3) | | | |
| Drift Deposits (B3) | | | | | | |
| Algal Mat or Crust (B4) | | | n in Tilled Soils (C6) Yes Geomorphic Position (D2) | | | |
| Iron Deposits (B5) | | Thin Muck Surface (C | | | | |
| Inundation Visible on Aerial Imagery (B7) | | | arks)Microtopographic Relief (D4) | | | |
| Sparsely Vegetated Concave Surface (B8) | | | yes_FAC-Ne | utral Test (D5) | | |
| Field Observations: | | | | | | |
| Surface Water Present? | Yes | Depth (inches) | 2 | | | |
| Water Table Present? | Yes | Depth (inches) | 0 | | | |
| Saturation Present? | Yes | Depth (inches) | 0 | Wetland Hydrolog | y Present? Yes | |
| (includes capillary fringe) | | | | | | |
| Describe Recorded Data (stream gauge, r | nonitoring | well, aerial photos, p | revious inspections), if av | vailable: | | |
| Deventer | | | | | | |
| Remarks: | | | | | | |

VEGETATION - Use scientific names of plants.

Sampling Point: w-47n22w...

| | Absolute | Dominant | Indicator | Dominance Test worksheet: | | |
|--|----------|---------------|-----------|--|--|--|
| ree Stratum (Plot Size: 30) | % Cover | Species? | Status | Number of Dominant Species | | |
| · | | | | That Are OBL, FACW, or FAC: 5 (A) | | |
| | | | | Total Number of Dominant | | |
| | | | | Species Across All Strata: 5 (B) | | |
| | | | | Percent of Dominant Species | | |
| | | | | That Are OBL, FACW, or FAC: 100 (A/B) | | |
| · | | | | Prevalence Index worksheet: | | |
| · | | | | — | | |
| · | | | | Total % Cover of: Multiply by: | | |
| | 0 | = Total Cover | | OBL species 20.00 x 1 20 120.00 x 1 20 210 | | |
| apling/Shrub Stratum (Plot Size: <u>15</u>) | | | | FACW species <u>120.00</u> x 2 <u>240</u> | | |
| Alnus incana | 30.00 | Yes | FACW | FACU species 0.00 x 3 0 | | |
| Salix petiolaris | 20.00 | Yes | OBL | UPL species 0.00 x 4 0 | | |
| Fraxinus nigra | 10.00 | No | FACW | Column Totals <u>160</u> (A) <u>320</u> (B) | | |
| | | | | Prevalence Index = B/A = 2 | | |
| | | | | Hydrophytic Vegetation Indicators: | | |
| | | | | 1 - Rapid Test for Hydrophytic Vegetation | | |
| | | | | yes 2 - Dominance Test is > 50% | | |
| | 60 | = Total Cover | | yes 3 - Prevalence Index is $\leq 3.0^1$ | | |
| lerb Stratum (Plot Size: 5) | | | | 4 - Morphological Adaptations ¹ (Provide | | |
| Calamagrostis canadensis | 40.00 | Yes | FACW | supporting data in Remarks or on a separate sheet) | | |
| Solidago gigantea | 20.00 | Yes | FAC | Problematic Hydrophytic Vegetation ¹ (Explain) | | |
| Osmundastrum cinnamomeum | 20.00 | Yes | FACW | | | |
| Phalaris arundinacea | 10.00 | <u>No</u> | FACW | ¹ Indicators of hydric soil and wetland hydrology must be present, unless | | |
| , Onoclea sensibilis | 10.00 | No | FACW | disturbed or problematic. | | |
| | | | FACW | Definitions of Vegetation Strata: | | |
| | | | | | | |
| | | | | Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height. | | |
| | | | | - | | |
| | | | | Sapling/Shrub - Woody plants less than 3 in. DBH and greater th or equal to 3.28 ft (1 m) tall. | | |
| 0 | | | | | | |
| 1. | | | | Herb - All herbaeceous (non-woody) plants, regardless of size, a | | |
| 2. | | | | woody plants less than 3.28 ft tall. | | |
| | 100 | = Total Cover | | Woody vines - All woody vines greater than 3.28 ft in height. | | |
| | | | | | | |
| Voody Ving Stratum (Plot Size: 30 | | | | | | |
| | | | | | | |
| | | · | | | | |
| · | | | | Hydrophytic Vegetation | | |
| Voody Vine Stratum (Plot Size: <u>30</u>) | | | | | | |
| · | | | | Vegetation | | |

US Army Corps of Engineers

Northcentral and Northeast Region – Version 2.0

SOIL

| Sampling Point | : w-47n22w |
|----------------|------------|
|----------------|------------|

| Depth Matr | ix | Redox F | eatures | | | |
|---|------------------|---------------------------|-------------------------|----------------------------------|----------------------|--|
| (inches) Color (moist | :) % | Color (moist) | % Ту | pe ¹ Loc ² | Texture | Remarks |
| | | | | | | |
| | | | | | | |
| | | | | | · | |
| | | | | | | |
| Type: C=Concentration, D=Depletion, | , RM=Reduced M | atrix, MS=Masked Sand Gra | ins. | | · | ² Location: PL=Pore Lining, M=Matri |
| Hydric Soil Indicators: | | Polyvalue Below S | urfaco (SS) (I I | | Indicators for | Problematic Hydric Soil ³ : |
| Histosol (A1) | | 149B) | unace (56) (E | TR R, WILKA | 🗌 2 cm Mu | ick (A10) (LRR K, L, MLRA 149B) |
| Histic Epipedon (A2) | | Thin Dark Surface | (S9) (LRR R, N | 1LRA 149B) | Coast Pra | airie Redox (A16)(LRR K, L, R) |
| Black Histic (A3) | | Loamy Mucky Min | eral (F1) (LRR | K, L) | _ | icky Peat or Peat (S3) (LRR K, L, R) |
| Hydrogen Sulfide (A4) | | Loamy Gleyed Ma | | | | face (S7) (LRR K, M) |
| Stratified Layers (A5) | | Depleted Matrix (I | | | | e Below Surface (S8) (LRR K, L) |
| Depleted Below Dark Surface (A | 11) | Redox Dark Surfac | e (F6) | | | < Surface (S9) (LRR K, L) |
| Thick Dark Surface (A12) | | Depleted Dark Sur | face (F7) | | Iron-Mag | ganese Masses (F12) (LRR K, L, R) |
| Sandy Mucky Mineral (S1) | | Redox Depression | s (F8) | | Piedmon | t Floodplain Soils (F19) (MLRA 149B) |
| Sandy Gleyed Matrix (S4) | | | | | Mesic Sp | odic (TA6) (MLRA 144A, 145, 149B) |
| Sandy Redox (S5) | | | | | Red Pare | ent Material (F21) |
| Stripped Matrix (S6) | | | | | 🗌 Very Sha | illow Dark Surface (TF12) |
| Dark Surface (S7) (LRR R, MLRA | 149B) | | | | 🖌 Other (e | xplain in remarks) |
| Restrictive Layer (if observed): | | | | | | |
| Туре: | | | | | Hydric Soil Present? | ? Yes |
| Depth (inches): | | | | | • | |
| Remarks: | | | | I | | |
| No digging, existing forest road, soils a | assumed hydric b | ased on veg/hydro. | | | | |
| | | | | | | |

Site Photograph 1



Latitude: 46.5686311433525

Longitude: -93.0792641268047

Cowardin Classification: PSS

Circular 39: 6

Remarks:

Direction: north

Eggers & Reed: Shrub-Carr/Alder Thicket

Site Photograph 2



Latitude: 46.5686342865662

Longitude: -93.079264881176

Cowardin Classification: PSS

Circular 39: 6

Remarks:

Direction: west

Eggers & Reed: Shrub-Carr/Alder Thicket