WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

| Project/Site: Sandpiper | City/County: | Wadena | Sampling Date | e: <u>09/13/2014</u> | |
|--|---------------------------------|---------------|--------------------------------------|---------------------------------|--|
| Applicant/Owner: Enbridge | | State: M | N Sampling | Point: WA017b4W | |
| Investigator(s): DPT | | Section, T | ownship, Range: | | |
| Landform (hillslope, terrace, etc.): Depression | Lo | | oncave, convex, none): | Concave/Concave | |
| Slope (%): 0 Lat.: | Long.: | Datum | n: | | |
| Soil Map Unit Name | | | NWI Classification: | | |
| Are climatic/hydrologic conditions of the site typical f | or this time of the year | r? | (If no, explain in remai | ·ks) | |
| Are vegetation , soil , or hydrolog | | ly disturbed | ? Are "normal | , | |
| Are vegetation , soil , or hydrolog | | roblematic? | | s" present? Yes | |
| (If needed, explain any answers in remarks) | · | | | • | |
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| | | | | | |
| SUMMARY OF FINDINGS | | | | | |
| Hydrophytic vegetation present? Y | Is the sample | d area with | in a wetland? | Υ | |
| Hydric soil present? | | | | | |
| Indicators of wetland hydrology present? | If yes, optional | l wetland sit | te ID: WA017b | 1\// | |
| indicators of Welland Hydrology present. | ii yoo, optional | i wotana on | .o.ib | | |
| Remarks: (Explain alternative procedures here or in a separate report.) | | | | | |
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| PEM - Type 2, wet meadow | | | | | |
| 1 Livi Type 2, wet incadow | | | | | |
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| HYDROLOGY | | | | | |
| | | | Secondary Indicators | (minimum of two | |
| Primary Indicators (minimum of one is required; che | ck all that apply) | | required) | (| |
| X Surface Water (A1) Water-Stained Leaves (B9) | | | Surface Soil Cracks (B6) | | |
| | Aquatic Fauna (B13) | | Drainage Patterns (B10) | | |
| | Marl Deposits (B15) | | Moss Trim Lines (B16) | | |
| | Hydrogen Sulfide Odor (C1) | | Dry-Season Water Table (C2) | | |
| | Oxidized Rhizospheres on Living | | Crayfish Burrows (C8) | | |
| | Roots (C3) | | Saturation Visible on Aerial Imagery | | |
| | Presence of Reduced Iron (C4) | | — (C9) | | |
| , | Recent Iron Reduction in Tilled | | | Stunted or Stressed Plants (D1) | |
| | Soils (C6) | | | X Geomorphic Position (D2) | |
| | | | | Shallow Aquitard (D3) | |
| Sparsely Vegetated Concave Other (Explain in Remarks) | | | X FAC-Neutral Test (| · | |
| Surface (B8) | , | | Microtopographic R | , | |
| | | | | , | |
| Field Observations: | | | | | |
| Surface water present? Yes X No | Depth (inches) |): 2 | Indicators of | | |
| Water table present? Yes X No | Depth (inches) |): | wetland | | |
| Saturation present? Yes X No | Depth (inches) |): | hydrology | | |
| (includes capillary fringe) | | | present? | Υ | |
| . , , , | | | · · | | |
| Describe recorded data (stream gauge, monitoring well, aerial photos, previous inspections), if available: | | | | | |
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| Remarks: | | | | | |
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VEGETATION - Use scientific names of plants Sampling Point: WA017b4W 50/20 Thresholds Absolute Dominant Indicator 20% 50% Tree Stratum Plot Size (30 ft % Cover **Species** Status Tree Stratum 0 0 Sapling/Shrub Stratum 0 0 Herb Stratum 22 55 Woody Vine Stratum 0 5 **Dominance Test Worksheet** 6 Number of Dominant Species that are OBL, FACW, or FAC: (A) **Total Number of Dominant** Species Across all Strata: 10 (B) 0 = Total Cover Percent of Dominant Species that are OBL, 100.00%_(A/B) Sapling/Shrub Absolute **Dominant** Indicator FACW, or FAC: Plot Size (15 ft Stratum % Cover **Species** Status **Prevalence Index Worksheet** Total % Cover of: 3 OBL species 110 x 1 = _x 2 = **FACW** species 5 FAC species 0 x 3 = 0 FACU species 0 x 4 = UPL species 0 x 5 = 0 Column totals 110 (A) 110 (B) 8 9 Prevalence Index = B/A = 10 = Total Cover 0 **Hydrophytic Vegetation Indicators:** Indicator Rapid test for hydrophytic vegetation Absolute Dominant 5 ft Herb Stratum Plot Size (X Dominance test is >50% % Cover **Species** Status Calamagrostis canadensis 70 OBL X Prevalence index is ≤3.0* 40 OBL Carex lacustris Morphogical adaptations* (provide supporting data in Remarks or on a separate sheet) Problematic hydrophytic vegetation* 5 6 (explain) *Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic **Definitions of Vegetation Strata:** 10 Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. 13 Sapling/shrub - Woody plants less than 3 in. DBH and 15 greater than 3.28 ft (1 m) tall. = Total Cover 110 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody Vine Indicator Absolute **Dominant** Plot Size (Status Stratum % Cover Species Woody vines - All woody vines greater than 3.28 ft in height. 3 Hydrophytic vegetation 0 = Total Cover present? Remarks: (Include photo numbers here or on a separate sheet)

SOIL WA017b4W **Sampling Point:** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix Redox Features Texture Remarks (Inches) Color (moist) % Loc** Color (moist) % Type* 10YR 2/1 0-6 100 Mucky sand С 6-20 10YR 3/2 95 10YR 4/6 5 М Sand *Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains *Location: PL=Pore Lining, M=Matrix **Hydric Soil Indicators: Indicators for Problematic Hydric Soils:** 2 cm Muck (A10) (LRR K, L, MLRA 149B Histisol (A1) Polyvalue Below Surface Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S7) (LRR K, L Hydrogen Sulfide (A4) (LRR R, MLRA 149B Polyvalue Below Surface (S8) (LRR K, L) Stratified Layers (A5) Loamy Mucky Mineral (F1) Depleted Below Dark Suface (A11) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Loamy Gleyed Matrix (F2) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) X Sandy Mucky Mineral (S1) Depleted Matrix (F3) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Redox Dark Surface (F6) Red Parent Material (F21) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S6) Redox Depressions (F8) Very Shallow Dark Surface (TF12) Dark Surface (S7) (LRR R, MLRA Other (Explain in Remarks) 149B) *Indicators of hydrophytic vegetation and weltand hydrology must be present, unless disturbed or problematic Restrictive Layer (if observed): Hydric soil present? Y Depth (inches): Remarks: