

Project/Site: SPP City/County: Aitkin Sampling Date: 2015-07-23

Applicant/Owner: Enbridge State: Minnesota Sampling Point: AI029a3W_R

Investigator(s): ZCW/DPT Section, Township, Range: 05, 50n, 26w

Landform (hillslope, terrace, etc.): Depression Local Relief (concave, convex, none): Concave Slope (%): 0

Subregion (LRR or MLRA): LRR K Latitude: 46.8436080264... Longitude: -93.67384515... Datum: Minnesota State ...

Soil Map Unit Name: 544 NWI Classification: PSSB

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)

Hydrophytic Vegetation Present?	Yes _____	Is the Sampled Area within a Wetland? If yes, optional Wetland Site ID:	Yes _____
Hydric Soil Present?	Yes _____		
Wetland Hydrology Present?	Yes _____		AI029a1W _____
Remarks: (Explain alternative procedures here or in a separate report.) 			

Wetland Hydrology Indicators:			Secondary Indicators (minimum of two required)	
Primary Indicators (minimum of one is required; check all that apply)				
☐ Surface Water (A1)	☐ Water-Stained Leaves (B9)	☐ Surface Soil Cracks (B6)		
<u>yes</u> ☐ High Water Table (A2)	☐ Aquatic Fauna (B13)	☐ Drainage Patterns (B10)		
<u>yes</u> ☐ Saturation (A3)	☐ Marl Deposits (B15)	☐ Moss Trim Lines (B16)		
☐ Water Marks (B1)	☐ Hydrogen Sulfide Odor (C1)	☐ Dry-Season Water Table (C2)		
☐ Sediment Deposits (B2)	☐ Oxidized Rhizospheres on Living Roots (C3)	☐ Crayfish Burrows (C8)		
☐ Drift Deposits (B3)	☐ Presence of Reduced Iron (C4)	☐ Saturation Visible on Aerial Imagery (C9)		
☐ Algal Mat or Crust (B4)	☐ Recent Iron Reduction in Tilled Soils (C6)	☐ Stunted/Stressed Plants (D1)		
☐ Iron Deposits (B5)	☐ Thin Muck Surface (C7)	<u>yes</u> ☐ Geomorphic Position (D2)		
☐ Inundation Visible on Aerial Imagery (B7)	☐ Other (Explain in Remarks)	☐ Shallow Aquitard (D3)		
☐ Sparsely Vegetated Concave Surface (B8)		☐ Microtopographic Relief (D4)		
		<u>yes</u> ☐ FAC-Neutral Test (D5)		
Field Observations: Surface Water Present? <u>No</u> Depth (inches) <u> </u> Water Table Present? <u>Yes</u> Depth (inches) <u>2</u> Saturation Present? <u>Yes</u> Depth (inches) <u>0</u> (includes capillary fringe)			Wetland Hydrology Present? <u>Yes</u>	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:				
Remarks:				

VEGETATION - Use scientific names of plants.

Sampling Point: AI029a3W...

	Absolute % Cover	Dominant Species?	Indicator Status		
<u>Tree Stratum</u> (Plot Size: <u>30</u>)				Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A) Total Number of Dominant <u>2</u> Species Across All Strata: <u> </u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: <u> </u> Multiply by: <u> </u> OBL species <u>60.00</u> x 1 <u>60</u> FACW species <u>75.00</u> x 2 <u>150</u> FACU species <u>0.00</u> x 3 <u>0</u> UPL species <u>0.00</u> x 4 <u>0</u> Column Totals <u>135</u> (A) <u>210</u> (B) Prevalence Index = B/A = <u>1.555555...</u>	
	0 = Total Cover				
<u>Sapling/Shrub Stratum</u> (Plot Size: <u>15</u>)					Hydrophytic Vegetation Indicators: <u> </u> 1 - Rapid Test for Hydrophytic Vegetation yes <u> </u> 2 - Dominance Test is > 50% yes <u> </u> 3 - Prevalence Index is ≤ 3.0 ¹ <u> </u> 4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation ¹ (Explain) ¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Alnus incana</u>	<u>70.00</u>	<u>Yes</u>	<u>FACW</u>		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	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 than or equal to 3.28 ft (1 m) tall. Herb - All herbaeaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.	
	70 = Total Cover				
<u>Herb Stratum</u> (Plot Size: <u>5</u>)					Hydrophytic Vegetation Present? <u> </u>
1. <u>Carex lacustris</u>	<u>60.00</u>	<u>Yes</u>	<u>OBL</u>		
2. <u>Onoclea sensibilis</u>	<u>5.00</u>	<u>No</u>	<u>FACW</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____	Remarks: (include photo numbers here or on a separate sheet.) 	
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
	65 = Total Cover				
<u>Woody Vine Stratum</u> (Plot Size: <u>30</u>)					
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
	0 = Total Cover				

SOIL

Sampling Point: AI029a3W...

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

[illegible]

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

²Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:		Indicators for Problematic Hydric Soil ³ :
☒ Histosol (A1) ☐ Histic Epipedon (A2) ☐ Black Histic (A3) ☐ Hydrogen Sulfide (A4) ☐ Stratified Layers (A5) ☐ Depleted Below Dark Surface (A11) ☐ Thick Dark Surface (A12) ☐ Sandy Mucky Mineral (S1) ☐ Sandy Gleyed Matrix (S4) ☐ Sandy Redox (S5) ☐ Stripped Matrix (S6) ☐ Dark Surface (S7) (LRR R, MLRA 149B)	☐ Polyvalue Below Surface (S8) (LRR R, MLRA 149B) ☐ Thin Dark Surface (S9) (LRR R, MLRA 149B) ☐ Loamy Mucky Mineral (F1) (LRR K, L) ☐ Loamy Gleyed Matrix (F2) ☐ Depleted Matrix (F3) ☐ Redox Dark Surface (F6) ☐ Depleted Dark Surface (F7) ☐ Redox Depressions (F8)	☐ 2 cm Muck (A10) (LRR K, L, MLRA 149B) ☐ Coast Prairie Redox (A16)(LRR K, L, R) ☐ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) ☐ Dark Surface (S7) (LRR K, M) ☐ Polyvalue Below Surface (S8) (LRR K, L) ☐ Thin Dark Surface (S9) (LRR K, L) ☐ Iron-Manganese Masses (F12) (LRR K, L, R) ☐ Piedmont Floodplain Soils (F19) (MLRA 149B) ☐ Mesic Spodic (TA6) (MLRA 144A, 145, 149B) ☐ Red Parent Material (F21) ☐ Very Shallow Dark Surface (TF12) ☐ Other (explain in remarks)
Restrictive Layer (if observed): ☐ Type: _____ Depth (inches): _____		Hydric Soil Present? Yes _____
Remarks: _____		



Latitude: 46.843613684221

Cowardin Classification: PSS

Longitude: -93.6738592387118

Circular 39: 6

Direction: East

Eggers & Reed: Shrub-Carr/Alder Thicket

Remarks:



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