WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP	City/County: Aitkin		Sampling Date: 2016-08-30		
Applicant/Owner: Enbridge		State: Minnesota	Samplir	ng Point: w-47n22w24-aa1	
Investigator(s): DPT, MGH	Section. Towr	nship, Range: S24, T47N, R22			
Landform (hillslope, terrace, etc.): Depre		Local Relief (concave, co		Slope (%): 0-2%	
Subregion (LRR or MLRA):		•	gitude: -93.07445433	Datum: NAD83	
Soil Map Unit Name: 164B				ssification: N/A	
Are climatic/hydrologic conditions on the	e site typical for this time of v	ear? (if no. explain in Remarl		No No	
			·		
Are Vegetation No_, Soil No_, or Hy	drology No significantly dis	turbed? Are "Normal Circum	nstances" present? Yes		
Are Vegetation No , Soil No , or Hydr	ology No naturally problem	atic? (If needed, explain an	y answers in Remarks)		
SUMMARY OF FINDINGS - Attach site	map showing sampling poin	t locations, transects, impo	rtant features, etc.		
Hydrophytic Vegetation Present?	Yes	Is the Sampled Area			
Hydric Soil Present?	Yes	within a Wetland?		Yes	
Wetland Hydrology Present?	<u>Yes</u>	If yes, optional Wetland	Site ID:	<u>w-47n22w24-aa1</u>	
Remarks: (Explain alternative procedure	es here or in a separate report	t.)			
No digging, existing forest road, potent	ial buried utilities. Precipitation	on above normal based on W	/ETS analysis.		
HYDROLOGY					
Wetland Hydrology Indicators:			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum of one is re	equired: check all that annly)		Surface So	il Cracks (B6)	
yes Surface Water (A1)	Water-Stained Le	eaves (B9)		atterns (B10)	
yes High Water Table (A2)	Aquatic Fauna (B		Moss Trim Lines (B16)		
yes Saturation (A3)		Marl Deposits (B15)		Dry-Season Water Table (C2)	
Water Marks (B1)		Hydrogen Sulfide Odor (C1)		Crayfish Burrows (C8)	
Sediment Deposits (B2)		heres on Living Roots (C3)	Saturation Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Presence of Redu	uced Iron (C4)	Stunted/Str	essed Plants (D1)	
Algal Mat or Crust (B4)	Recent Iron Redu	uction in Tilled Soils (C6)	yes Geomorphic Position (D2)		
Iron Deposits (B5)	Thin Muck Surface	ce (C7)	no Shallow Aquitard (D3)		
Inundation Visible on Aerial Imagery (B7)			ks)Microtopographic Relief (D4)		
Sparsely Vegetated Concave Surface (B8))		yes FAC-Neutral	Test (D5)	
Field Observations:					
Surface Water Present?	Yes Depth (inch	nes) <u>4</u>			
Water Table Present?	Yes Depth (inch	nes) <u>0</u>			
Saturation Present?	Yes Depth (inch	nes) <u>0</u>	Wetland Hydrology Pr	esent? Yes	
(includes capillary fringe)					
Describe Recorded Data (stream gauge,	monitoring well, aerial photo	s, previous inspections), if av	vailable:		
Remarks:					
i .					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot Size: <u>30</u>	% Cover	Species?	Status	Number of Dominant Species
1				That Are OBL, FACW, or FAC: 4 (A)
2			_	Total Number of Dominant
3			_	Species Across All Strata: 4 (B)
4			_	Percent of Dominant Species
5.				That Are OBL, FACW, or FAC: 100 (A/B)
6				Prevalence Index worksheet:
7.				Total % Cover of: Multiply by:
	0	= Total Cover	_	OBL species 25.00 x 1 25
Sapling/Shrub Stratum (Plot Size: 15		_		FACW species 150.00 x 2 300
1 Alnus incana	60.00	Yes	FACW	FACU species 0.00 x 3 0
2. Salix petiolaris	15.00	No No	OBL	UPL species 0.00 x 4 0
3. Acer rubrum	5.00	No	FAC	Column Totals 180 (A) 340 (B)
4.	3.00			Prevalence Index = B/A = 1.8888888
5.		_	-	· -
		_	-	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				yes 2 - Dominance Test is > 50%
	80	_ = Total Cover		yes 3 - Prevalence Index is $\le 3.0^1$
Herb Stratum (Plot Size: 5)	50.00	.,	54014	4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet)
1. Calamagrostis canadensis	50.00	Yes	FACW	┨ .
2. Impatiens capensis	20.00	Yes	FACW	Problematic Hydrophytic Vegetation ¹ (Explain)
3. Onoclea sensibilis	20.00	Yes	FACW	Indicators of hydric soil and wetland hydrology must be present, unless
4. Carex lacustris	10.00	No No	OBL	disturbed or problematic.
5			_	Definitions of Vegetation Strata:
6		_	_	_
7				Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.
8				Height (BBH), regulatess of height.
9				Sapling/Shrub - Woody plants less than 3 in. DBH and greater than
10				or equal to 3.28 ft (1 m) tall.
11.				Herb - All herbaeceous (non-woody) plants, regardless of size, and
12.				woody plants less than 3.28 ft tall.
	100	= Total Cover	_	Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot Size: 30)		= 10tal cover		Woody Wiles All Woody Wiles greater than 5.25 fell Height.
·				
1	_	_	_	-
2				Hydrophytic Vegetation
3			_	Present? Yes
4	_	_	_	4
	0	=Total Cover		
Remarks: (include photo numbers here or on a separate sheet	t.)			

Sampling Point: W-47n22w... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc² (inches) Color (moist) Color (moist) % Type¹ Texture Remarks ¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. ²Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil³: Hydric Soil Indicators: Polyvalue Below Surface (S8) (LRR R, MLRA Histosol (A1) 2 cm Muck (A10) (LRR K, L, MLRA 149B) Histic Epipedon (A2) Coast Prairie Redox (A16)(LRR K, L, R) Thin Dark Surface (S9) (LRR R, MLRA 149B) Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Hydrogen Sulfide (A4) Dark Surface (S7) (LRR K, M) Loamy Gleyed Matrix (F2) Stratified Layers (A5) Depleted Matrix (F3) Polyvalue Below Surface (S8) (LRR K, L) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thin Dark Surface (S9) (LRR K, L) Thick Dark Surface (A12) Depleted Dark Surface (F7) Iron-Maganese Masses (F12) (LRR K, L, R) Sandy Mucky Mineral (S1) Redox Depressions (F8) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Red Parent Material (F21) Stripped Matrix (S6) Very Shallow Dark Surface (TF12) Other (explain in remarks) Dark Surface (S7) (LRR R, MLRA 149B) Restrictive Layer (if observed): Hydric Soil Present? Yes Depth (inches): Remarks: No digging, soils assumed hydric based on veg and hydro.

Site Photograph 1 Sampling Point: W-47n22w24-aa1

Cowardin Classification: PSS				
Circular 39: 6				
Eggers & Reed: Shrub-Carr/Alder Thicket				

Site Photograph 2 Sampling Point: w-47n22w24-aa1



Latitude: 46.5409094654457	Cowardin Classification: PSS		
Longitude: -93.0744542554888	Circular 39: 6		
Direction: south	Eggers & Reed: Shrub-Carr/Alder Thicket		
Remarks:			