WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP	Ci	ity/County: Cass		Sampling Date: 2016-07-27		
Applicant/Owner: Enbridge			State: Minnesota	Sampl	ing Point: <u>w-139n28w31-aa1</u>	
Investigator(s): DPT, MGH		Section, Township	p, Range: S31, T139N, R2	28W		
Landform (hillslope, terrace, etc.): Depre	ssion		Local Relief (concave, co	onvex, none): CC	Slope (%): 0-2%	
Subregion (LRR or MLRA):		 Latitude: 46	5.8073679041 Lon	 gitude: -94.27008354	. Datum: NAD83	
Soil Map Unit Name: 1957B				NWI CI	assification: N/A	
Are climatic/hydrologic conditions on the	e site typic	al for this time of year	? (if no, explain in Remar	ks):	Yes	
Are Vegetation No_, Soil No_, or Hydrology No_ significantly disturbed? Are "Normal Circumstances" present? Yes_						
Are Vegetation No , Soil No , or Hydro		_				
SUMMARY OF FINDINGS - Attach site	map show	wing 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:	<u>w-139n28w31-aa</u>	
Remarks: (Explain alternative procedure	es here or i	n a separate report.)				
No digging, existing forest road, potential buried utilities.						
HYDROLOGY						
Wetland Hydrology Indicators: Secondary Indicators (minimum of two required)						
Primary Indicators (minimum of one is re	equired; ch	neck all that apply)		Surface So	oil Cracks (B6)	
		Water-Stained Leave	(B9) Drainage Patterns (B10)			
		Aquatic Fauna (B13)		Moss Trim	Moss Trim Lines (B16)	
Saturation (A3)	Saturation (A3) Marl Deposits (B15)			Dry-Season Water Table (C2)		
Water Marks (B1) Hydrogen Sulfide Od		or (C1)	C1)Crayfish Burrows (C8)			
Sediment Deposits (B2) Oxidized Rhizosphe		es on Living Roots (C3)	Saturation	Visible on Aerial Imagery (C9)		
Drift Deposits (B3)	Drift Deposits (B3) Presence of Reduce		Iron (C4)	Stunted/St	ressed Plants (D1)	
Algal Mat or Crust (B4)	Algal Mat or Crust (B4) Recent Iron Reduction		n in Tilled Soils (C6)	<u>yes</u> Geomorph	ic Position (D2)	
Iron Deposits (B5)	Iron Deposits (B5) Thin Muck Surface (7)Shallow		quitard (D3)	
Inundation Visible on Aerial Imagery (B7)		Other (Explain in Ren	narks)	Microtopo	Microtopographic Relief (D4)	
Sparsely Vegetated Concave Surface (B8)				<u>yes</u> FAC-Neutr	al Test (D5)	
Field Observations:						
Surface Water Present?	<u>No</u>	Depth (inches)				
Water Table Present?		Depth (inches)				
Saturation Present?	<u>No</u>	Depth (inches)		Wetland Hydrology P	Present? Yes	
(includes capillary fringe)						
Describe Recorded Data (stream gauge, Remarks:	monitoring	g well, aerial photos, p	revious inspections), if av	vailable:		
No digging, could not confirm/deny wat	er table.					
30 0, 33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3						

VEGETATION - Use scientific names of plants.				Sampling Point: w-139n28
	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot Size: 30)	% Cover	Species?	Status	Number of Dominant Species
1. Populus tremuloides	10.00	Yes	FAC	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:
	10	= Total Cover		OBL species 25.00 x 1 25
Sapling/Shrub Stratum (Plot Size: 15)		_		FACW species 120.00 x 2 240
1. Alnus incana	30.00	Yes	FACW	FACU species 10.00 x 3 40
2. Salix petiolaris	20.00	Yes	OBL	UPL species 0.00 x 4 0
3. Rubus idaeus	10.00	No	FACU	Column Totals 175 (A) 365 (B)
4.		_	_	Prevalence Index = B/A = 2.0857142
5.		_	_	Hydrophytic Vegetation Indicators:
6		_	_	1 - Rapid Test for Hydrophytic Vegetation
7.		_		yes 2 - Dominance Test is > 50%
,	60	= Total Cover	_	yes 3 - Prevalence Index is $\leq 3.0^{1}$
Herb Stratum (Plot Size: 5)	-	10tal 20121		4 - Morphological Adaptations (Provide
1. Phalaris arundinacea	90.00	Yes	FACW	supporting data in Remarks or on a separate sheet)
2. Solidago gigantea	10.00	No	FAC	Problematic Hydrophytic Vegetation (Explain)
3. Cicuta maculata	5.00	No	OBL	- TODICITIANE TYGODITYNE VERELANDIT (EXPLAIN)
	3.00	_ 140		Indicators of hydric soil and wetland hydrology must be present, unless
4				disturbed or problematic.
5			_	Definitions of Vegetation Strata:
6				Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast
7			_	height (DBH), regardless of height.
8				-
9			_	Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10				
11				Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
12				woody plants less than 5.20 it tail.
	105	= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot Size: 30)				
1.				_
2.				Hydrophytic
3.		_	_	Vegetation Present? Yes
4.		_		
	0	=Total Cover		7
Remarks: (include photo numbers here or on a separate sheet				_
Remarks: (include prioto numbers here of on a separate sheet)			

Sampling Point: w-139n28... **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/hydro.

Site Photograph 1 Sampling Point: w-139n28w31-aa1



Latitude: 46.8074009707633	Cowardin Classification: PSS
Longitude: -94.2700281367584	Circular 39: 6
Direction: west	Eggers & Reed: Shrub-Carr/Alder Thicket
Remarks:	
west	

Site Photograph 2 Sampling Point: w-139n28w31-aa1



Latitude:	46.8074011384014	Cowardin Classification: PSS		
Longitude:	-94.2700281367584	Circular 39: 6		
Direction: sout	th	Eggers & Reed: Shrub-Carr/Alder Thicket		
Remarks:				