## WETLAND DETERMINATION DATA FORM - North Central and Northeast Region

Project/Site: SPP	City/County: Wadena		Sampling Date: 2016-07-25		
Applicant/Owner: Enbridge			State: Minnesota	Sam	pling Point: w-138n33w11-ab1
Investigator(s): DPT, MGH		Section, Townshi	p, Range: <u>S11, T138</u> I	N, R33W	
Landform (hillslope, terrace, etc.):	epression		Local Relief (concav	e, convex, none): CL	Slope (%): 0-2%
Subregion (LRR or MLRA):		 Latitude: 46	5.7863064445	Longitude: -94.8107534	
Soil Map Unit Name: 543				NWI	Classification: PSS1C
Are climatic/hydrologic conditions of	on the site typical fo	r this time of year	? (if no, explain in Re	emarks):	No
Are Vegetation No , Soil No , c	r Hydrology <u>No</u> si	ignificantly disturb	ped? Are "Normal Ci	rcumstances" present? Y	es
Are Vegetation No_, Soil No_, or	Hydrology <u>No</u> nat	urally problemation	? (If needed, explai	in any answers in Remark	s)
SUMMARY OF FINDINGS - Attack	n site map showing	sampling point lo	cations, transects, in	mportant features, etc.	
Hydrophytic Vegetation Present?	Yes	<u> </u>	Is the Sampled Are	a	
Hydric Soil Present?	Yes	_	within a Wetland?		Yes
Wetland Hydrology Present?	Yes	_	If yes, optional Wet	land Site ID:	w-138n33w11-ab
Remarks: (Explain alternative proce	dures here or in a s	eparate report.)	•		
Existing forest road, no digging, po	tential buried utilitie	es. Precipitation al	bove normal based o	on WETS analysis.	
HYDROLOGY					
Wetland Hydrology Indicators:				Secondary Inc	dicators (minimum of two required)
Primary Indicators (minimum of one	is required; check	all that apply)		Surface	e Soil Cracks (B6)
Surface Water (A1)		Water-Stained Leave	s (B9)	Drainag	ge Patterns (B10)
High Water Table (A2)		Aquatic Fauna (B13)		Moss T	rim Lines (B16)
Saturation (A3)		Marl Deposits (B15)		Dry-Sea	ason Water Table (C2)
—— Water Marks (B1)		Hydrogen Sulfide Od	or (C1)	<del></del>	Burrows (C8)
Sediment Deposits (B2)		Oxidized Rhizosphere	es on Living Roots (C3)		on Visible on Aerial Imagery (C9)
Drift Deposits (B3)		Presence of Reduced			/Stressed Plants (D1)
Algal Mat or Crust (B4)		Recent Iron Reductio		<del></del>	rphic Position (D2)
Iron Deposits (B5)		Thin Muck Surface (C			Aquitard (D3)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Rer		narks)	<del></del>	pographic Relief (D4)	
Sparsely Vegetated Concave Surfac	e (B8)			yes FAC-Nei	utral Test (D5)
Field Observations:	NI-				
Surface Water Present?	<u>No</u>	Depth (inches)			
Water Table Present?		Depth (inches)			.,
Saturation Present?	<u>No</u>	Depth (inches)		Wetland Hydrology	y Present? Yes
(includes capillary fringe)					
Describe Recorded Data (stream ga	uge, monitoring wel	l, aerial photos, p	revious inspections),	if available:	
No digging, could not confirm/deny	water table				
No digging, could not commindent	water table.				

That Are ORL, FACW, or FACE: 4	VEGETATION - Use scientific names of plants	S.			Sampling Point: w-138n33
That Arc OBL, FACW, or FAC. 4		Absolute	Dominant	Indicator	Dominance Test worksheet:
2.   Species Across All Strates: 4	Tree Stratum (Plot Size: 30	) % Cover	Species?	Status	Number of Dominant Species
Species Across All Stratas: 4 (8)  4.	1.				That Are OBL, FACW, or FAC: 4(A)
Species Across All Strata: 4	2.				Total Number of Dominant
Percent of Dominant Species   That Are OBL, FACW, or FAC: 100			<del>-</del>		Species Across All Strata: 4 (B)
That Are GBL, FACW, or FAc: 100					Percent of Dominant Species
Prevalence Index worksheet:   7	_				That Are OBL, FACW, or FAC: 100 (A/B)
Sapling/Shrub Stratum (Plot Size: 15   FACW species   20.00   x 1   60     FACW species   20.00   x 2   40     FACW species   20.00   x 3   0     FACW species   20.00   x 4   0     FACW species   20.00   x 4   0     FACW species   20.00   x 4   0     Column Totals   100   (A)   160   (B)     Prevalence Index = B/A = 1.6     FACW species   20.00   x 4   0     Column Totals   100   (A)   160   (B)     Frevalence Index = B/A = 1.6     FACW species   20.00   x 4   0     Column Totals   100   (A)   160   (B)     Frevalence Index = B/A = 1.6     FACW species   20.00   (A)   160   (B)     FACW species   20.00   (B)   (B)     FAC					Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot Size: 15   FACW species   20.00   x 1   60     FACW species   20.00   x 2   40     FACW species   20.00   x 3   0     FACW species   20.00   x 4   0     Column Totals   200   x 4   0     Column Totals   200   x 4   0     FACW species   20.00   x 4   0     Column Totals   200   x 4   0     FACW species   20.00   x 5   0     FACW specie	7.				Total % Cover of: Multiply by:
FACW species   20.00   x 2   40		0			
FACU species	Sapling/Shrub Stratum (Plot Size: 15)		_		FACW species 20.00 x 2 40
UPL species   0.00   x 4   0	<u></u>				FACU species 0.00 x 3 0
Column Totals   100   (A)   160   (B)					UPL species 0.00 x 4 0
Prevalence Index = B/A = 1.6    Hydrophytic Vegetation Indicators:   1 - Rapid Test for Hydrophytic Vegetation					Column Totals 100 (A) 160 (B)
Herb Stratum (Plot Size; 5 )  1 - Rapid Test for Hydrophytic Vegetation Indicators:  1 - Rapid Test for Hydrophytic Vegetation (Provide Size; 5 50%)  0 = Total Cover					
1 - Rapid Test for Hydrophytic Vegetation 7.					Hydrophytic Vegetation Indicators:
7.   Yes   2 - Dominance Test is > 50%					<b>-1</b>
Berb Stratum (Plot Size: 5   )				_	
A - Morphological Adaptations 1 (Provide supporting data in Remarks or on a separate sheet)	**		= Total Cover		<b>- </b>
1. Typha X glauca 20.00 Yes FAC Problematic Hydrophytic Vegetation 1 (Explain) 3. Carex lacustris 20.00 Yes GBL Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  4. Phalaris arundinacea 20.00 Yes FACW disturbed or problematic.  5. Sagittaria latifolia 10.00 No OBL Definitions of Vegetation Strata:  6. Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.  7. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  10. Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  10. Herb - All woody vines FAI woody vines greater than 3.28 ft in height.  10. Herb - All woody vines greater than 3.28 ft in height.  10. Hydrophytic Vegetation  10. Hydrophytic Vegetation  10. Hydrophytic Vegetation  11. Hydrophytic Vegetation  12. Hydrophytic Vegetation  13. Hydrophytic Vegetation  14. Hydrophytic Vegetation  15. Problematic Hydrophytic Vegetation  16. Hydrophytic Vegetation  17. Problematic Hydrophytic Vegetation  18. Hydrophytic Vegetation  19. Problematic Hydrophytic Vegetation  19. Problematic Hydrophytic Vegetation  10. Hydrophytic Vegetation  10. Present?  10. Problematic Hydrophytic Vegetation  10. Hydrophytic Vegetation  10. Present?  10. Problematic Hydrophytic Vegetation  11. Problematic Hydrophytic Vegetation  12. Problematic Hydrophytic Vegetation  13. Problematic Hydrophytic Vegetation  14. Problematic Hydrophytic Vegetation  15. Problematic Hydrophytic Vegetation  16. Problematic Hydrophytic Vegetation  17. Problematic Hydrophytic Vegetation  18. Problematic Hydrophytic Vegetation  19. Problematic Hydrophytic Vegetation  19. Problematic Hydrophytic Vegetation  19. Problematic Hydrophytic Vegetation  19. Prob	Herb Stratum (Plot Size: 5	-			<u>'</u>
2. Solidago gigantea 2. Solidago gigantea 2. Concept Service Solidago gigantea 2. Solidago gigantea 2. Solidago gigantea 2. Concept Service Solidago gigantea 2. Solidago gigantea 2. Concept Service Solidago gigantea 3. Concept Service Solidago gigantea 4. Concept Service Solidago gigantea 5. Sagitaria latifolia 6. Concept Service Solidago gigantea 6. Concept Service Solidago gig		30.00	Yes	OBL	
20.00 Yes OBL Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  5. Sagittaria latifolia 10.00 No OBL Definitions of Vegetation Strata:  7. Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast height (DBH), regardless of height.  8. Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  10. Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft in height.  Woody Vine Stratum (Plot Size: 30					Problematic Hydrophytic Vegetation (Explain)
4. Phalaris arundinacea 20.00 Yes FACW disturbed or problematic. 5. Sagittaria latifolia 10.00 No OBL 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.  10. Herb - All herbacecous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody Vine Stratum (Plot Size: 30 1. Uogetation Yes  Woody Vine Stratum (Plot Size: 30 4. Under the company of the	· ·	_	_		
5. Sagittaria latifolia 6		_			
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 herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  100 = Total Cover  Woody Vine Stratum (Plot Size: 30)  1		_			
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.  10. Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody Vine Stratum (Plot Size: 30		<u> </u>	_ :	_ ====	
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 herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  100 = Total Cover  Woody Vine Stratum (Plot Size: 30 )  1.					Tree - Woody plants 3 in. (.76 cm) or more in diameter at breast
Sapling/Shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  10.			_	_	
10			<u> </u>		Sanling/Shruh - Woody plants less than 3 in. DBH and greater than
11. Herb - All herbaeceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  12. 100 = Total Cover Woody vines - All woody vines greater than 3.28 ft in height.  Woody Vine Stratum (Plot Size: 30 )  1.					
woody plants less than 3.28 ft tall.  100 = Total Cover  Woody Vine Stratum (Plot Size: 30 )  1.					- All to the second of size and
Woody Vine Stratum (Plot Size: 30 )  1.					
Noody Vine Stratum (Plot Size: 30	12				-
1.		100	= Total Cover		Woody vines - All woody vines greater than 3.28 ft in height.
2. Hydrophytic Vegetation Present? Yes O = Total Cover	Woody Vine Stratum (Plot Size: 30 )				
Vegetation   Yes	1				-
3	2				
0 =Total Cover	3				
	4				_
Remarks: (include photo numbers here or on a separate sheet.)		0	=Total Cover		
	Remarks: (include photo numbers here or on a separate s	heet.)			
	Remarks: (include photo numbers here or on a separate si	heet.)			

Sampling Point: w-138n33... **SOIL** Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.) Depth Matrix **Redox Features** Loc<sup>2</sup> (inches) Color (moist) Color (moist) % Type<sup>1</sup> Texture Remarks <sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soil<sup>3</sup>: 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 allowed, existing forest road, soils assumed hydric based on veg/hydro.

Site Photograph 1 Sampling Point: w-138n33w11-ab1



	DOTT TO THE PARTY OF THE PARTY
Latitude: 46.7865305766899	Cowardin Classification: PEM
Longitude: -94.81100396262	Circular 39: 2
Direction: south	Eggers & Reed: Fresh (Wet) Meadow
Remarks:	

Site Photograph 2 Sampling Point: w-138n33w11-ab1



Latitude: 46.786307408518	Cowardin Classification: PEM
Longitude: -94.8107512482394	Circular 39: 2
Direction: east	Eggers 9, Boods Fresh (Wet) Meadow

Direction: east Eggers & Reed: Fresh (Wet) Meadow

Remarks: