WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP	City/County: Wadena	Sampling Date: 9/2/2014
Applicant/Owner: Enbridge	State: N	
Investigator(s): RAJ/BEH		Township, Range:
Landform (hillslope, terrace, etc.): Floodplain		concave, convex, none <u>CL</u>
Slope (%): 0 - 2% Lat.: 46.799114	Long.: -94.916401 Datu	m: NWI Classification:
Soil Map Unit Name: 458E Are climatic/hydrologic conditions of the site typica	al for this time of the year?	(If no, explain in remarks)
Are vegetation , soil , or hyd		
Are vegetation, soil, or hyd		
(If needed, explain any answers in remarks)		
SUMMARY OF FINDINGS		
Hydrophytic vegetation present?	/ Is the sampled area wit	hin a wetland? Y
Hydric soil present? Indicators of wetland hydrology present?	/ If yes, optional wetland s	ite ID:
Demortos (Evalois alternativa preseduras hara ar	in a concrete report)	
Remarks: (Explain alternative procedures here or The wetland is a floodplain forest commun		As fluvially-deposited soils in a
floodplain, the soils are naturally problema		
noouplain, the soils are naturally problema		onutions are met.
HYDROLOGY		
High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial Imagery (B7) Sparsely Vegetated Concave Surface (B8)	Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B15) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks) Depth (inches): Depth (inches):	Secondary Indicators (minimum of two required) Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial Imagery (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5) Indicators of wetland budrolegy
Saturation present? Yes (includes capillary fringe)	Depth (inches):	hydrology present? Y
Describe recorded data (stream gauge, monitoring	g well, aerial photos, previous inspect	tions), if available:
Remarks: Indicators of wetland hydrology are prese	ent.	

VEGETATION - Use scientific names of plant	S	Sampling Point:	WA003a1W
			50/20 Thresholds
Trop Stratum Diat Size (20.ft)	Absolute Dominal	nt Indicator	20% 50%
Tree Stratum Plot Size (30 ft)	% Cover Species	s Status	Tree Stratum 30 75
1 Frazininsusepennhsylicanica	70 Y	FACW	Sapling/Shrub Stratum 8 20
2 Ummusrarinenicana	40 Y	FACW	Herb Stratum 18 46
3 Queercusennacerpa	$\frac{40}{40}$ $\frac{1}{Y}$	FACU	Woody Vine Stratum 0 0
4	1		
5			
			Dominance Test Worksheet
6			Number of Dominant
7			Species that are OBL,
8			FACW, or FAC: 4 (A)
9			Total Number of Dominant
10	·		
	150 = Total Co		Species Across all Strata:6 (B)
	150 = Total Cov	ver	Percent of Dominant
			Species that are OBL,
Sapling/Shrub Plot Size(15 ft))	Absolute Dominal	nt Indicator	FACW, or FAC: 66.67% (A/B)
Stratum Plot Size (15 ft)	% Cover Species	s Status	
1 Quereus Thacevearda	40 Y	FACU	Prevalence Index Worksheet
2			
		<u> </u>	Total % Cover of:
3			OBL species $35 \times 1 = 35$
4			FACW species <u>149</u> x 2 = <u>298</u>
5			FAC species 18 x 3 = 54
6			FACU species 80 x 4 = 320
7			UPL species $0 x 5 = 0$
8			Column totals 282 (A) 707 (B)
9			Prevalence Index = $B/A = 2.51$
10			
*	40 = Total Cov	ver	
			Hydrophytic Vegetation Indicators:
	Absolute Domina	nt Indicator	Rapid test for hydrophytic vegetation
Herb Stratum Plot Size (5 ft)	% Cover Species		X Dominance test is >50%
1 Gareststicta	30 Y	OBL	X Prevalence index is ≤3.0*
2 Phaelasisrandinalinacea	25 Y	FACW	
3 Casexbalanda	15 N	FAC	Morphological adaptations* (provide
			supporting data in Remarks or on a
4 Rubus pubes cons	<u>5</u> N	FACW	separate sheet)
5 Onodea sensibilis	<u>5 N</u>	FACW	Problematic hydrophytic vegetation*
6 Inisveersiaalor	5 N	OBL	(explain)
7 Symphyntrighum hatariflorum	<u> </u>	FAC	*Indicators of hydric soil and wetland hydrology must be
8 Elympusikinginicus	<u> </u>	FACW	present, unless disturbed or problematic
9 Comusialet ba	<u> </u>	FACW	
10			Definitions of Vegetation Strata:
11			_
12			Tree - Woody plants 3 in. (7.6 cm) or more in diameter at
13			breast height (DBH), regardless of height.
14			Sapling/shrub - Woody plants less than 3 in. DBH and
15		— — I	greater than 3.28 ft (1 m) tall.
<u>p</u>	92 = Total Cov	ver	/
Woody Vine			Herb - All herbaceous (non-woody) plants, regardless of
Stratum Plot Size (30 ft)	Absolute Domina	nt Indicator	size, and woody plants less than 3.28 ft tall.
	% Cover Species		
1			Woody vines - All woody vines greater than 3.28 ft in bound
		<u> </u>	height.
2			
3		<u> </u>	
4			Hydrophytic
5			vegetation
	0 = Total Cov	ver	present? Y
			·····
Remarks: (Include photo numbers here or on a separa	te sheet)		
	,		H bur ook Obligate anapies are present
A floodplain forest dominated by green ash	anu American eim Wi	una iului 3-3 DB	in our oak. Onligate species are present

A floodplain forest dominated by green ash and American elm with a lot of 3-5" DBH bur oak. Obligate species are present throughout the wetland area. The herbaceous community is dominated by wetland sedges and reed canary grass, with many additional species present at low coverage. Hydrophytic vegetation is present.

SOIL								Samp	ling Point:	WA003a1W
Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)										
Depth		Matrix		Redox Features					Remarks	
(ln.)	Color	(moist)	%	Color (moist) % Type*			Type*	Loc**	Texture	Remarks
0-4	Hue_10YR	2/1	100						М	
4-10	Hue_10YR	2/1	60						CL	alternating bands
4-10	Hue_10YR	4/2	40						LS	alternating bands
10-21	Hue_10YR	5/2	95	Hue_10YR	6/6	5	С	М	S	
10-21	Hue_101K	3/2	95		0/0	5	C	IVI	3	
								-		
*Type: (C=Concentra	ation. D=De	pletior	n, RM=Reduced	Matrix. CS	S=Cov	ered or Co	ated San	d Grains	
	ion: PL=Pore						0.00.01.00			
	Soil Indicat							Indicat	ors for Pro	blematic Hydric Soils:
Histosol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLRA 149B Histic Epipedon (A2) (S8) (LRR R, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) LRR R, MLRA 149B ✓ Stratified Layers (A5) Loamy Mucky Mineral (F1) Dark Surface (S7) (LRR K, L) Depleted Below Dark Surface (A11) (LRR K, L) Thick Dark Surface (A12) Depleted Matrix (F2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F6) Sandy Redox (S5) Depleted Dark Surface (F7) Stripped Matrix (S6) Redox Depressions (F8) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.								Redox (A16) (LRR K, L, R) eat or Peat (S3) (LRR K, L, R) S7) (LRR K, L w Surface (S8) (LRR K, L) ace (S9) (LRR K, L) e Masses (F12) (LRR K, L, R) dplain Soils (F19) (MLRA 149B) TA6) (MLRA 144A, 145, 149B) tterial (F21) Dark Surface (TF12) in Remarks)		
Type:	tive Layer (if	observed):						Hydric	c soil prese	nt? <u>Y</u>
Remarks: The soil has a 4-inch muck surface over 6 inches of alternating black clay loam and dark grayish brown loamy sand (fluvial deposits). Below 10 inches is depleted sand. As fluvial deposited soils in a floodplain, the soils are naturally problematic.										