WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: SPP	City/County: Carlton	Sampling Date: 5/30/2014
Applicant/Owner: Enbridge	State: MI	
Investigator(s): KRG/NTT	Section, T	ownship, Range:
Landform (hillslope, terrace, etc.): Depression		oncave, convex, none): <u>CL</u>
	Long.: <u>-92.647483</u> Datum	
Soil Map Unit Name: V337		NWI Classification:
Are climatic/hydrologic conditions of the site typical for Are vegetation, soil, or hydrolog		(If no, explain in remarks)
Are vegetation, soil, or hydrolog		
(If needed, explain any answers in remarks)		circumstances" present?
(in needed, explain any answers in remarks)		
SUMMARY OF FINDINGS		
Hydrophytic vegetation present? Y Hydric soil present? Y	Is the sampled area with	in a wetland? Y
	If yoo patienal watland at	
Indicators of wetland hydrology present? Y	If yes, optional wetland sit	
Remarks: (Explain alternative procedures here or in a	a separate report.)	
The wetland is a sedge meadow located with		
····		
HYDROLOGY		
		Secondary Indicators (minimum of two
Primary Indicators (minimum of one is required; chec		required)
	er-Stained Leaves (B9)	Surface Soil Cracks (B6)
	atic Fauna (B13)	Drainage Patterns (B10)
	l Deposits (B15)	Moss Trim Lines (B16)
	rogen Sulfide Odor (C1) Jized Rhizospheres on	 Dry-Season Water Table (C2) Crayfish Burrows (C8)
	ng Roots (C3)	Saturation Visible on Aerial Imagery
	sence of Reduced Iron (C4)	(C9)
	ent Iron Reduction in Tilled	Stunted or Stressed Plants (D1)
	s (C6)	Geomorphic Position (D2)
	Muck Surface (C7)	Shallow Aquitard (D3)
	er (Explain in Remarks)	Microtopographic Relief (D4)
Surface (B8)		FAC-Neutral Test (D5)
Field Observations:		
Surface water present? Yes	Depth (inches): 0.5	Indicators of
Water table present? Yes	Depth (inches): 0.5	wetland
Saturation present? Yes	Depth (inches):	– hydrology
(includes capillary fringe)		present? Y
		·
Describe recorded data (stream gauge, monitoring w	ell, aerial photos, previous inspect	ions), if available:
Remarks:		
The wetland has water just at the surface.	Due to digging restrictions, the	e water table and saturation could
not be documented.		

					CRC5105a1W	
Tree Stratum Plot Size (30 ft)	Absolute _ % Cover	Dominant Species	Indicator Status	50/20 Thresholds Tree Stratum	20% 1	50% 3
Populus tremuloides	5 % Cover	Y	FAC	Sapling/Shrub Stratum	1	3
				Herb Stratum	22	55 0
				Woody Vine Stratum	0	0
				Dominance Test Worksh	eet	
				Number of Dominant		
				Species that are OBL, FACW, or FAC:	3	(A)
				Total Number of Dominan		(<)
				Species Across all Strata		(B)
	5	Total Cover		Percent of Dominant		
apling/Shrub	Absolute	Dominant	Indicator	Species that are OBL, FACW, or FAC:	100.00)% (A/E
Stratum Plot Size (15 ft)	% Cover	Species	Status		100.00	<u>, , , , , , , , , , , , , , , , , , , </u>
Cornus alba	5	Y	FACW	Prevalence Index Works	heet	
				Total % Cover of:	1_ 0	0
				FACW species 35 x 2	2 = 7	0
					-	5
						<u>)</u>
				Column totals 120 (A	.) 16	65 (B)
				Prevalence Index = B/A =	1.38	}
	5	Total Cover				
				Uvdrophytic Vegetation	Indicator	'S:
	Absolute	Dominant	Indicator	Hydrophytic Vegetation Rapid test for hydroph		
Herb Stratum Plot Size(5ft))	Absolute % Cover	Dominant Species	Indicator Status	Rapid test for hydroph X Dominance test is >50	ytic vege	
, Scirpus cyperinus	% Cover 75	Species Y	Status OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is ≤3	lytic vege)% 3.0*	tation
, ,	% Cover	Species	Status	Rapid test for hydroph X Dominance test is >50	iytic vege)% 3.0* tions* (pro	tatior ovide
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Ren separate sheet)	ytic vege)% 3.0* tions* (pro marks or o	tation ovide on a
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis	% Cover 75 15 10	Species Y N N	Status OBL FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy	ytic vege)% 3.0* tions* (pro marks or o	tation ovide on a
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Ren separate sheet)	ytic vege 3.0* tions* (pro marks or o tic vegeta	tation ovide on a tion*
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain)	ytic vege % 3.0* ions* (pro marks or o tic vegeta tland hydro	tation ovide on a tion*
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we	ytic vege 3.0* tions* (pro marks or o tic vegeta tland hydro blematic	tation ovide on a tion*
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasvcarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c	ytic vege % 3.0* tions* (promarks or of tic vegeta tland hydro blematic n Strata: m) or more	tation ovide on a tion*
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasvcarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless	ytic vege % 3.0* ions* (pro- narks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height.	tation ovide on a tion* logy must in diamete
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasvcarpum	% Cover 75 15 10 5	Species Y N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <5 Morphological adaptal supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1	ytic vege % 3.0* ions* (pro- narks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height.	tation ovide on a tion* logy must in diamete
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum	% Cover 75 15 10 5 5 	Species Y N N N N	Status OBL FACW FACW FACW	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <50 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1 greater than 3.28 ft (1 m) tall.	ytic vege % 3.0* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i	tation ovide on a tion* logy must in diamete in. DBH an
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <5 Morphological adaptal supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1	ytic vege % 3.0* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i bdy) plants,	tation bvide on a tion* logy must in diamete in. DBH an regardless
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5 	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <5 Morphological adaptal supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants I greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-wood size, and woody plants less that	ytic vege % 10* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i h 3.28 ft tall	tation ovide on a tion* logy must in diamete in. DBH ar regardless
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants I greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-wood	ytic vege % 10* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i h 3.28 ft tall	tation ovide on a tion* logy must in diamete in. DBH an regardless
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5 	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1 greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-wood size, and woody plants less than Woody vines - All woody vines	ytic vege % 10* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i h 3.28 ft tall	tation ovide on a tion* logy must in diamete in. DBH an regardless
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5 	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1 greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-wood size, and woody plants less that Woody vines - All woody vines height.	ytic vege % 10* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i h 3.28 ft tall	tation ovide on a tion* logy must l in diamete in. DBH an regardless
Scirpus cyperinus Phalaris arundinacea Onoclea sensibilis Thalictrum dasycarpum Typha latifolia	% Cover 75 15 10 5 5 	Species Y N N N Image: Species Image: Species	Status OBL FACW FACW OBL OBL	Rapid test for hydroph X Dominance test is >50 X Prevalence index is <3 Morphological adaptat supporting data in Rer separate sheet) Problematic hydrophy (explain) *Indicators of hydric soil and we present, unless disturbed or pro Definitions of Vegetation Tree - Woody plants 3 in. (7.6 c breast height (DBH), regardless Sapling/shrub - Woody plants 1 greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-wood size, and woody plants less than Woody vines - All woody vines	ytic vege % 10* ions* (pro- marks or of tic vegeta tland hydro blematic 1 Strata: m) or more of height. ess than 3 i h 3.28 ft tall	tation ovide on a tion* logy must l in diamete in. DBH an regardless

SOIL								Sampl	ing Point:	CRC5105a1W
			to the d	epth needed t				confirm	the absence of	indicators.)
Depth		Matrix			Redox					Remarks
(ln.)	Color	(moist)	%	Color (m	oist)	%	Type*	Loc**	Texture	rtemarko
			+ $+$							
			+ $+$							
			+							
			+ $+$							
*Type: (C=Concentr	ation. D=De	epletion	, RM=Reduce	d Matrix. (CS=Co	vered or C	oated Sa	nd Grains	
	ion: PL=Por			,	a matrix,					
	Soil Indica	ž						Indicate	ors for Probler	matic Hydric Soils:
	Histosol (A1) Polyvalue Below Surface 2 cm Muck (A10) (LRR K, L, MLRA 149B Histic Epipedon (A2) Thin Dark Surface (S9) Coast Prairie Redox (A16) (LRR K, L, R) Black Histic (A3) Thin Dark Surface (S9) Dark Surface (S7) (LRR K, L) Depleted Below Dark Suface (A11) Loamy Mucky Mineral (F1) Depleted Below Surface (A12) Sandy Mucky Mineral (S1) Depleted Matrix (F3) Depleted Matrix (F3) Sandy Redox (S5) Depleted Dark Surface (F7) Redox Dark Surface (F7) Stripped Matrix (S6) Depleted Dark Surface (F7) Redox Depressions (F8) dicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.						or Peat (S3) (LRR K, L, R) (LRR K, L Surface (S8) (LRR K, L) (S9) (LRR K, L) Masses (F12) (LRR K, L, R) ain Soils (F19) (MLRA 149B) 6) (MLRA 144A, 145, 149B) al (F21) Surface (TF12) Remarks)			
Type:	ive Layer (if	observed):						Hydric	soil present?	Y
	s were not			the proximit				s are as	sumed to be	hydric based on the