WETLAND DETERMINATION DATA FORM Great Plains Region

		_											
Project/Site:		L3R									Date:	10/01/14	
Applicant:		Enbridge				0 1	(A 41 D 4				County:	Pennington	
Investigators		MRK/OTG				Subregio	•	A or LRR):	MLRA 56		State:	MN	
Soil Unit:	I59A				1 -	D - 1: - 6:		I Classification:				450m 40m 45 f4	
Landform:	Dip 3 - 7%		Latitude: 47.	00715		cal Relief:		76.476667	Datum		Sample Point 	w-152n43w15-f1	
Slope (%):		onditions on the site						76476667	Datum: ☑ Yes	□ No	Section:		
Are Vegetati		I □, or Hydrology				ai: (II IIO, ex		e normal circum			Township:		
Are Vegetati		I □, or Hydrology	•	•				e normal circuit ☑ Yes		536111:	Range:	Dir:	
SUMMARY (Haturany p	TODICII	natio:			E 163	- 110		Range.	DII.	
Hydrophytic			Yes	.					Hydric Soil	s Present?	Yes		
	drology Prese		Yes			_					nt Within A W	etland? Yes	
Remarks:		imple point is locate			itch.				io i i iio Cai	npinig i on		charia. 100	
HYDROLOG	Υ												
		licators (Check all	that apply:	Minim	um of on	o nrimary	or two s	econdary requi	red):				
Primary		ilcators (Crieck all	і шасарріу,	1711111111	uiii oi oii	e primary	OI TWO S	econdary requi	ieu).	Secondary:			
<u>- 11111a. y</u>	A1 - Surface	Water				B11 - Salt	Crust				B6 - Surface S	Soil Cracks	
	A2 - High Wa					B13 - Aqua						Vegetated Concave Surface	
	A3 - Saturation					C1 - Hydro					B10 - Drainag		(4111 N
	B1 - Water M B2 - Sedimer					C2 - Dry S		ater Table spheres on Living	Poots (not till	, –	C3 - Oxidized C8 - Crayfish	Rhizospheres on Living Roots	(tilled)
	B3 - Drift Der	•						educed Iron	Noots (not till			n Visible on Aerial Imagery	
✓	B4 - Algal Ma					C7 - Thin N				✓	D2 - Geomorp		
	B5 - Iron Dep					Other (Exp	olain)			✓	D5 - FAC-Neu		
		on Visible on Aerial Im	nagery								D7 - Frost-He	aved Hummocks (LRR F)	
	B9 - water-S	tained Leaves											
Field Obser	vations												
		Vac = □	Dor	- 4 l		(in)							
	ter Present?	Yes □ Yes □		oth:		- (in.)			Wetland H	lydrology	Present?	Υ	
Water Table				oth:		(in.)							
Saturation Present? Yes Depth: (in.)													
						• ` ′							
		stream gauge, moni				evious insp	pections),	, if available:					
Describe Rec		stream gauge, moni located in a dip and				evious insp	pections),	, if available:					
Remarks:						evious insp	pections),	, if available:					
Remarks:	Wetland is	located in a dip and	d supports I	nydrop	hytic veç	evious insp getation.			adicators)				
Remarks: SOILS Profile Descr	Wetland is	located in a dip and	eeded to doo	nydrop cument	hytic veo	evious inspetation.	onfirm th	ne absence of in					
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Remarks: SOILS Profile Descr	Wetland is	located in a dip and	eeded to doo	nydrop cument	hytic veo	evious inspetation.	onfirm th	ne absence of in Pore Lining, M=Matr					
Remarks: SOILS Profile Descr	Wetland is	located in a dip and ibe to the depth ne letion, RM=Reduced Ma	eeded to doo	cument ered/Coa	hytic veo	evious insp getation. cator or co Grains; Loca	onfirm th	ne absence of in Pore Lining, M=Matr		Texture		Remarks	
Remarks: SOILS Profile Descr (Type: C=Conce	Wetland is	located in a dip and ibe to the depth ne letion, RM=Reduced Ma	eeded to doc atrix, CS=Cove	cument ered/Coa	hytic veg t the indi	evious insp getation. cator or co Grains; Loca	onfirm th tion: PL=P Mottl	ne absence of in Pore Lining, M=Matr	ix)	Texture		Remarks	
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Remarks: SOILS Profile Descr (Type: C=Conce Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep	ibe to the depth neletion, RM=Reduced Marix Color (Moist) I Indicators (chapipedon	eeded to doc atrix, CS=Cove	indicat	t the indiated Sand Color (Color (Sandy R Stripped	evious inspectation. cator or congrains; Loca Moist) not presented a matrix	Mottl % tion: PL=P	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox	c Soils¹ (LRR F, G, H)	
Remarks: SOILS Profile Descr (Type: C=Conce Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi	Ibe to the depth neletion, RM=Reduced Marrix Color (Moist) I Indicators (chapted on stice)	eeded to doc atrix, CS=Cove	indicat	t the indiated Sand Color (Color (Sandy R Stripped Loamy N	evious inspectation. cator or constraints; Loca Moist) not presented a matrix Mucky Miner	onfirm the	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	luck (LRR I, J) Prairie Redox urface (LRR G)	c Soils ¹ (LRR F, G, H)	
Remarks: SOILS Profile Descr (Type: C=Conce Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge	Indicators (ch	eeded to doc atrix, CS=Cove	indicat	t the indiated Sand Color (Color (Sandy R Stripped Loamy N Loamy O	evious inspectation. cator or construction of presented ox Matrix Mucky Miner Bleyed Matrix	onfirm the	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi	c Soils¹ (LRR F, G, H)	
Remarks: SOILS Profile Descr (Type: C=Conce	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified	ibe to the depth neletion, RM=Reduced Marix Color (Moist) I Indicators (chapted on Sulfide and Sulfide and Layers (LRR F)	eeded to doc atrix, CS=Cove	indicate S5 = S6 = F1 = F2 = F3	t the indiated Sand Color (Color (Cors are r Sandy R Stripped Loamy R Loamy C	evious inspectation. cator or congrains; Loca Moist) Moist) edox Matrix Mucky Miner Gleyed Matrix Matrix	Mottl % tion: PL=P	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduce	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic	c Soils ¹ (LRR F, G, H)	
Remarks: SOILS Profile Descr (Type: C=Conce Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	Indicators (ch	eeded to docatrix, CS=Cove	indicate S5 S6 S6 S7	t the indiated Sand Color (Color (Sandy R Stripped Loamy N Loamy O Redox D	evious inspectation. cator or construction of presented ox Matrix Mucky Miner Bleyed Matrix	monfirm the tion: PL=P Mottl % t): al x	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi	c Soils ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)	
Remarks: SOILS Profile Descr (Type: C=Conce Depth (In.)	ription (Description, D=Deportmentration, D=De	Indicators (chapted and a size of the sulfide dayers (LRR F) ack (LRR FGH) and Below Dark Surface of Surface o	eeded to docatrix, CS=Cove	indicat S5 F1 F2 F3 F6 F7 F8	t the indiated Sand Color (Color (Col	evious inspectation. cator or congrains; Loca Moist) Moist) edox Matrix Mucky Miner Gleyed Matrix I Matrix Park Surface I Dark Surface Pepressions	Mottl % tion: PL=P	e absence of in Pore Lining, M=Matr	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material	c Soils ¹ (LRR F, G, H) ons (LRR H, outside MLRA 72, 73) Surface	
Remarks: SOILS Profile Descr (Type: C=Conce	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick E S1 - Sandy M	Indicators (chapted Layers (LRR FGH) ed Below Dark Surface fucky Mineral	eeded to docatrix, CS=Cove	indicat S5 F1 F2 F3 F6 F7 F8	t the indiated Sand Color (Color (Col	evious inspectation. cator or congrains; Loca Moist) Moist) edox Matrix Mucky Miner Gleyed Matrix I Matrix Park Surface I Dark Surface Pepressions	Mottl % tion: PL=P	ne absence of in Pore Lining, M=Matr les Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark S	c Soils ¹ (LRR F, G, H) ons (LRR H, outside MLRA 72, 73) Surface	
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Remarks: SOILS Profile Descr (Type: C=Conce	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick E S1 - Sandy M S2 - 2.5 cm M	Indicators (chapted Education) Indicators (chapted Education)	eeded to docatrix, CS=Cove	indicat S5 F1 F2 F3 F6 F7 F8	t the indiated Sand Color (Color (Col	evious inspectation. cator or congrains; Loca Moist) Moist) edox Matrix Mucky Miner Gleyed Matrix I Matrix Park Surface I Dark Surface Pepressions	Mottl % tion: PL=P	e absence of in Pore Lining, M=Matr	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark Sain in Remarks)	c Soils ¹ (LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface	present,
Remarks: SOILS Profile Descr (Type: C=Conce	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black Hi A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick E S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm M S4 - Sandy G	Indicators (chapted Below Dark Surface Mucky Peat or Peat (LRI Sleyed Matrix	eeded to docatrix, CS=Cove	indicat S5 F1 F2 F3 F6 F7 F8	t the indiated Sand of Color (Color (Color (Sandy R Stripped Loamy N Loamy O Depleted Redox D	evious inspectation. cator or congrains; Loca Moist) Moist) oot presented with the congrains of the congrain of the congrains of the congrain of the c	Mottl % tion: PL=P	le absence of in Pore Lining, M=Matr	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark Signature F18 - Reduct TF2 - Red FTF12 - Very Other (Explain Indicators of Funless disturbed)	luck (LRR I, J) Prairie Redox urface (LRR G) Plains Depressiced Vertic Parent Material Shallow Dark Sain in Remarks)	c Soils ¹ (LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface	present,
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WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-152n43w15-f1
					•
VEGETATIO	N (Species identified in all uppercase ar	e non-native	species.)		
Tree Stratum ((Plot size: 30 ft. radius)				
	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 2 (A)
3.					
4.					Total Number of Dominant Species Across All Strata:(B)
5.					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 100.0% (A/B)
7.					
8.					Prevalence Index Worksheet
9.					Total % Cover of: Multiply by:
10.					OBL spp. 0
	Total Cover =	0			FACW spp. ${90}$ x 2 = ${180}$
			<u> </u>		FAC spp. ${15}$ \times $3 = {45}$
Sapling/Shrub S	Stratum (Plot size: 15 ft. radius)				FACU spp. $0 \times 4 = 0$
1.					UPL spp. $0 \times 5 = 0$
2.					
3.					Total 105 (A) 225 (B)
4.					(X)(X)
5.					Provolence Index – P/A – 2 142
					Prevalence Index = B/A = 2.143
6.					
7.					Illudrantutia Vanatatian Indiaatava.
8.					Hydrophytic Vegetation Indicators:
9.					Rapid Test for Hydrophytic Vegetation
10.					X Dominance Test is > 50%
	Total Cover =	0	_		X Prevalence Index is ≤ 3.0 *
					Morphological Adaptations (Explain) *
Herb Stratum (Plot size: 5 ft. radius)				X Problem Hydrophytic Vegetation (Explain) *
1.	Calamagrostis stricta	50	Υ	FACW	
2.	Spartina pectinata	40	Υ	FACW	* Indicators of hydric soil and wetland hydrology must be
3.	Apocynum cannabinum	15	N	FAC	present, unless disturbed or problematic.
4.					Definitions of Vegetation Strata:
5.					
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.
10.					- Capinig/Oil ab - 1 cos, plante too man - 2 - 1, regulares of the grant
					-
11.					Herb - All herbaceous (non-woody) plants, regardless of size.
12.					Herb - All herbaceous (hon-woody) plants, regardless of size.
13.					
14.					
15.					Woody Vines - All woody vines, regardless of height.
	Total Cover =	105	_		
Woody Vine St	ratum (Plot size: 30 ft. radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present?
5.					
4.					
	Total Cover =	0			
Remarks:	Wetland sample point is dominated by north		ass and n	rairie cord	d grass
remarks.	Wettaria sample point is dominated by north	citi icca gi	ass and p	raine core	a grass.
.					
Additional R	Remarks:				