WETLAND DETERMINATION DATA FORM Great Plains Region

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Project/Site: L3R											Date:	07/24/14	
Applicant: Enbridge											County:	Pennington	
	nvestigators: BEH/BCS					Subregion	•	or LRR):	MLRA 56		State:	MN	
Soil Unit:	I19A							Classification:				454.45.40.14	
Landform:	Depression		40	Local Relief: LC 8.167255 Longitude: -96.3772				0440400			Sample Point:	w-154n45w13-b1	
Slope (%):	0 - 2%		Latitude: 48						Datum:				
		nditions on the site				If ? (If no, exp				□ No	Section:		
Are Vegetation			•	-	disturbed?		Are	e normal circum	•	esent?	Township:	D:	
Are Vegetation		, ,	□aturally	prob	lematic?				□ No		Range:	Dir:	
SUMMARY C													
Hydrophytic \				es		•				Is Present?			
Wetland Hyd			Ye					<u> </u>		mpling Poir	it Within A We	etland? Yes	
Remarks:	The wetland	d is a wet meadow l	located in	a roa	adside ditch	and domi	inated by	/ reed canary g	rass.				
HYDROLOG	Υ												
Wetland Hy	drology Ind	icators (Check all t	that apply	/: Min	imum of on	e primary	or two se	econdary requir	ed):				
Primary:	•	(Oneon am	and apply	,		o priiriai y	0. 1	, , , , , , , , , , , , , , , , , , ,	04/1	Secondary:			
☐ A1 - Surface Water						B11 - Salt (Crust				B6 - Surface S	oil Cracks	
						B13 - Aqua					B8 - Sparsely \	/egetated Concave Surface	
✓	A3 - Saturation					C1 - Hydro					B10 - Drainage		
	B1 - Water M					C2 - Dry Se			D (((((((Rhizospheres on Living Roots (tilled	
	B2 - Sedimen	•				C3 - Oxidiz		ı: 🗆	C8 - Crayfish E				
	B3 - Drift Dep B4 - Algal Ma			□ C4 - Presence of Reduced Iron □ C7 - Thin Muck Surface □ Other (Explain) □							D2 - Geomorpl	Visible on Aerial Imagery	
	B5 - Iron Dep										D5 - FAC-Neut		
		n Visible on Aerial Ima	agery									ved Hummocks (LRR F)	
		ained Leaves										,	
Field Observ	vations:												
Surface Wate		Yes 🗆	De	epth:		(in.)							
				Depth: (in.)					Wetland Hydrology F			Present? Y	
Saturation Pr		Yes ☑		Depth: 0 (in.)									
Saturation Fresent: Tes E Deptit (in.)													
	<u> </u>	stream gauge, monit		, aeria	al photos, pre	evious insp	ections),	if available:					
Describe Reco	<u> </u>	stream gauge, monite aturated at the sur		, aeria	al photos, pre	evious insp	ections),	if available:					
Remarks:	<u> </u>			, aeria	al photos, pre	evious insp	ections),	if available:					
Remarks:	The soil is s	caturated at the sur	face.			·							
Remarks: SOILS Profile Descri	The soil is s	saturated at the sur	face.	ocum	ent the indic	cator or co	onfirm the	e absence of in					
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Remarks: SOILS Profile Descri	The soil is s	be to the depth nee	face.	ocum	ent the indic	cator or co	onfirm the	e absence of in ore Lining, M=Matr					
Remarks: SOILS Profile Descri (Type: C=Concer	The soil is s	be to the depth need to the Reduced Ma	eded to do	ocum vered/	ent the indic	cator or co Grains; Locat	onfirm the tion: PL=Po	e absence of in ore Lining, M=Matr	(x)				
Remarks: SOILS Profile Descri	The soil is s	be to the depth nee	eded to do	ocum	ent the indic	cator or co Grains; Locat	onfirm the	e absence of in ore Lining, M=Matr		Texture		Remarks	
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, D=Depl	be to the depth need to the surface of the depth need to the depth need to the surface of the su	eded to do	%	ent the indic Coated Sand C Color (I	cator or co Grains; Locat Moist)	Mottle	e absence of in ore Lining, M=Matr es Type	Location	Indicators f	or Problematic		
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, Depoint of the soil is siption). The soil is siption (Description). The soil is siption (Description). The soil is siption (Description).	be to the depth need to the surface of the depth need to the depth need to the surface of the su	eded to do	ocum vered/ %	ent the indic Coated Sand C Color (I cators are n	cator or co Grains; Locat Moist)	Mottle	e absence of in ore Lining, M=Matr es Type	Location	Indicators f	luck (LRR I, J)	: Soils ¹	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, Depoint Intration, Depoint Intration	be to the depth need to the surface of the depth need to the depth need to the surface of the su	eded to do	ocum vered/ %	ent the indic Coated Sand C Color (I Cators are n S5 - Sandy Ro S6 - Stripped	cator or co Grains; Locat Moist)	Mottle %	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (: Soils ¹	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, Depoint Intration, Depoint Intration	be to the depth need to the de	eded to do	% if indi	ent the indic Coated Sand C Color (I Cators are n S5 - Sandy Ro S6 - Stripped F1 - Loamy M	cator or co Grains; Locat Moist) oot presentedox Matrix lucky Minera	Mottle %	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	luck (LRR I, J) Prairie Redox (urface (LRR G)	: Soils ¹ LRR F, G, H)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description (Description, D=Deplementation, D	be to the depth need to the surface of the depth need to the depth need to the surface of the su	eded to do	ocum vered/ %	ent the indic Coated Sand C Color (I Cators are n S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G	cator or co Grains; Locat Moist) not present	Mottle %	e absence of in ore Lining, M=Matr es 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 Depressio	: Soils ¹	
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Description, D=Deplementation, D=Depleme	be to the depth need to the surface of the depth need to the depth need to the surface of the su	eded to do	% if indi	ent the indicated Sand Coated Sand Color (Incomplete Sand Sand Sand Sand Sand Sand Sand Sand	cator or co Grains; Locat Moist) Moist) edox Matrix lucky Mineralleyed Matrix Matrix ark Surface	Mottle % t):	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduct TF2 - Red F	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressio	Soils ¹ LRR F, G, H) ons (LRR H, outside MLRA 72, 73)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, D=Deplete A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	be to the depth need to the de	eded to do	ocum vered/ %	ent the indice Coated Sand Sand Sand Sand Sand Sand Sand San	edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surfa	Mottle % t):	e absence of inore Lining, M=Matrices 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 Depression red Vertic Parent Material	Soils ¹ LRR F, G, H) ons (LRR H, outside MLRA 72, 73)	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	The soil is siption (Description, D=Deplementation, D=Deplementati	be to the depth need to the de	eded to do atrix, CS=Covered to the strict of the strict o	ocum vered/ %	ent the indice Coated Sand Sand Sand Sand Sand Sand Sand San	edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surfa	Mottle % t):	e absence of in ore Lining, M=Matr es 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 Depression ed Vertic Parent Material Shallow Dark S	Soils ¹ LRR F, G, H) ons (LRR H, outside MLRA 72, 73)	
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, D=Depleter A1- Histosol A2 - Histic Ep A3 - Black Histosol A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Depleter A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	be to the depth need to the depth need to the depth need to the depth need to make the surface of the surface o	eded to do atrix, CS=Cover atr	ocum vered/ %	ent the indice Coated Sand Sand Sand Sand Sand Sand Sand San	edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surfa	Mottle % t):	e absence of inore Lining, M=Matrices Type	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 Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	Soils ¹ LRR F, G, H) ons (LRR H, outside MLRA 72, 73)	
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, Dependentation, Dependentati	be to the depth need to the depth need to the depth need to the depth need to make the surface of the surface o	eded to do atrix, CS=Cover atr	ocum vered/ %	ent the indice Coated Sand Sand Sand Sand Sand Sand Sand San	cator or co Grains; Locat Moist) oot present edox Matrix lucky Minera eleyed Matrix Matrix ark Surface Dark Surface park Surface park Surface	Mottle % t):	e absence of incore Lining, M=Matrices Type	Location	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark Sir F16 - High FF18 - Reduct TF2 - Red FF12 - Very Other (Explain Indicators of Funless disturbed)	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks)	Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73) urface	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	The soil is siption (Description, D=Deplementation, D=Deplementati	be to the depth need to the depth need to the depth need to the depth need to the detection, RM=Reduced Maximus Matrix Color (Moist) Indicators (check in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral Mucky Peat or Peat (LRR Indicator) leyed Matrix	eded to do atrix, CS=Covers of the covers of	% if indi	ent the indice Coated Sand Sand Sand Sand Sand Sand Sand San	cator or co Grains; Locat Moist) Moist) ot present edox Matrix lucky Minera eleyed Matrix Matrix ark Surface Dark Surface Dark Surfa epressions ains Depres	Mottle Mottle % t): ce sions (ML	e absence of inore Lining, M=Matrices Type RA 72, 73 of LRR	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduct TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression ced Vertic Parent Material Shallow Dark S ain in Remarks) hydrophytic vegetat ed or problematic.	Soils ¹ LRR F, G, H) ONS (LRR H, outside MLRA 72, 73) urface	

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-154n45w13-b1					
VEGETATION (` '	e non-native	species.)							
Tree Stratum ((Plot size: 30 ft. radius) <u>Species Name</u>	% Cover	Dominant	Ind.Status	Dominance Test Worksheet					
1.	<u> </u>	<u>,,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,</u>	<u> </u>							
2.					Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)					
3.										
4.					Total Number of Dominant Species Across All Strata:1 (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.	Total Cover —	0			OBL spp. $\frac{8}{\sqrt{3}}$ \times $\frac{1}{\sqrt{3}}$ \times $\frac{8}{\sqrt{3}}$					
	Total Cover =	0	FAC spp. $\frac{105}{40}$ $\times 2 = \frac{210}{30}$							
Sanling/Shrub 9	Stratum (Plot size: 15 ft. radius)		FACW spp. 105 x z							
1.	Stratum (Fiot size: 15 it. radius)				$\begin{array}{cccccccccccccccccccccccccccccccccccc$					
2.					Ст 2 орр					
3.					Total 123 (A) 248 (B)					
4.					(-/					
5.					Prevalence Index = B/A = 2.016					
6.										
7.										
8.					Hydrophytic Vegetation Indicators:					
9.					Rapid Test for Hydrophytic Vegetation					
10.					XDominance Test is > 50%					
	Total Cover =	0	_		X Prevalence Index is ≤ 3.0 *					
					Morphological Adaptations (Explain) *					
,	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *					
1.	Phalaris arundinacea	80	Y	FACW	* to disease of budgies of the desire of the					
2.	Spartina pectinata	20	N	FACW	* Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.					
3.	Equisetum arvense	10	N N	FAC	·					
4. 5.	Persicaria maculosa	5 5	N N	FACW OBL	Definitions of Vegetation Strata:					
6	Persicaria lapathifolia Rorippa palustris	3	N N	OBL	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast					
7.	Rolippa palustiis	3	IN	OBL	height (DBH), regardless of height.					
8.										
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.					
10.				_						
11.										
12.					Herb - All herbaceous (non-woody) plants, regardless of size.					
13.										
14.										
15.					Woody Vines - All woody vines, regardless of height.					
	Total Cover =	123								
Woody Vine St	ratum (Plot size: 30 ft. radius)									
1.										
2.										
3.					Hydrophytic Vegetation Present?Y					
5.										
4.	Total Cover =	0								
Remarks:	The ditch is dominated by reed canary grass		contains a	n abunda	nce of prairie cordarase and mixed forbs					
Remarks.	The ditch is dominated by feed carrary grass	, and also	contains a	n abunua	nce of prairie cordgrass and mixed forbs.					
۸ ما ما:4: م ا ت	Domonko.									
Additional R	Kemarks:									