WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R									Date:	08/02/14
Applicant:		Enbridge									County:	Kittson
Investigators	:	BEH/BCS/MRK				Subregion	n (MLRA	or LRR):	MLRA 56		State:	MN
Soil Unit:	I140A						NWI	Classification:				
Landform:	Talf					cal Relief:					Sample Point:	u-159n48w6-b1
Slope (%):	0 - 2%		Latitude:			Longitude:			Datum:			
Are climatic/h		nditions on the sit				ar? (If no, exp			⊡Yes	□ No	Section:	
Are Vegetation		☐ or Hydrology			disturbed?		Are	normal circum	•	esent?	Township:	
Are Vegetation		☐ or Hydrology	□atural	ly prob	lematic?			Yes	□No		Range:	Dir:
SUMMARY C												
Hydrophytic \			_	No					Hydric Soil			
Wetland Hyd				No							nt Within A W	
Remarks: The upland sample point is dominated by grasses. The site is located between U.S. Highway 75 and a gravel drive within an old pipe storage yard. It is up a												
	gradual slope from a small, seasonally-flooded basin.											
HYDROLOG	Υ											
Wetland Hy	drology Ind	icators (Check all	I that app	ly; Mir	imum of on	e primary	or two se	econdary requir	ed):			
Primary		(- -	.,,		- p			/-	Secondary:		
	A1 - Surface					B11 - Salt (B6 - Surface S	
	A2 - High Wa					B13 - Aqua		0.1				Vegetated Concave Surface
	A3 - Saturation B1 - Water M					C1 - Hydro C2 - Dry Se					B10 - Drainage	e Patterns Rhizospheres on Living Roots (tilled)
I	B2 - Sedimen							pheres on Living	Roots (not till		C8 - Crayfish E	
	B3 - Drift Dep					C4 - Prese	nce of Re	duced Iron	(n Visible on Aerial Imagery
	B4 - Algal Ma					C7 - Thin N		ice			D2 - Geomorp	
	B5 - Iron Dep					Other (Exp	lain)				D5 - FAC-Neu	
	B9 - Water-S	on Visible on Aerial Im	nagery								D7 - Frost-Hea	aved Hummocks (LRR F)
	Do Water o	anica Ecaves										
Field Observ	vations:											
Surface Water		Yes 🗆		Depth:		(in.)						
Water Table		Yes				(in.)			Wetland H	lydrology l	Present?	N
		_										
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:												
							ections),	if available:				
Remarks:		stream gauge, moni or secondary hydr					ections),	if available:				
Remarks:							ections),	if available:				
Remarks: SOILS	No primary	or secondary hydr	rological i	indicat	ors observe	d.			dicators)			
Remarks: SOILS Profile Descri	No primary iption (Descr	or secondary hydr	rological i	indicat docum	ors observe	ed. cator or co	onfirm the	e absence of in				
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Remarks: SOILS Profile Descri	No primary iption (Descr	or secondary hydr	rological i	indicat docum	ors observe	ed. cator or co	onfirm the	e absence of in ore Lining, M=Matri				
Remarks: SOILS Profile Descri (Type: C=Concer	No primary iption (Descr	or secondary hydr ibe to the depth ne etion, RM=Reduced M Matrix	rological i	docum Covered/	ors observe	ed. cator or co Grains; Local	onfirm the tion: PL=Pe	e absence of in ore Lining, M=Matri	x)	Texture		Remarks
Remarks: SOILS Profile Descri	No primary iption (Descr	or secondary hydr be to the depth ne etion, RM=Reduced M	rological i	indicat docum	ors observe	ed. cator or co Grains; Local	onfirm the	e absence of in ore Lining, M=Matri		Texture		Remarks
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Remarks: SOILS Profile Descri (Type: C=Concer	No primary	or secondary hydroperate of the depth neetion, RM=Reduced M. Matrix Color (Moist)	rological i	docum Covered/ %	ors observe	cator or cc Grains; Local	onfirm the confirm the confirm the confirm the confirmation: PL=Pe Mottle %	e absence of in ore Lining, M=Matri es Type	x)	Texture		Remarks
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No primary ption (Descriptation, D=Depl	or secondary hydroperate of the depth neetion, RM=Reduced M. Matrix Color (Moist)	rological i	docum Covered/ %	cators are r	cator or co Grains; Local Moist)	onfirm the confirm the confirm the confirm the confirmation: PL=Pe Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1	for Problematic	
Remarks: SOILS Profile Descri (Type: C=Concer	No primary ption (Descritation, D=Depl ic Soil Field A1- Histosol	or secondary hydroperate of the depth neetion, RM=Reduced Minimum Matrix Color (Moist) Indicators (characteristics)	rological i	docum covered/ %	cators are r	cator or co Grains; Local Moist)	onfirm the confirm the confirm the confirm the confirmation: PL=Pe Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M	luck (LRR I, J)	c Soils ¹
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No primary ption (Descritation, D=Depl ic Soil Field A1- Histosol A2 - Histic Ep	or secondary hydrone ibe to the depth neetion, RM=Reduced Minimum Matrix Color (Moist) Indicators (chairmann and chairmann	rological i	docum Covered/ %	cators are r S5 - Sandy R S6 - Stripped	cator or cc Grains; Local Moist) Moist) not presen edox Matrix	onfirm the tion: PL=Pe Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (c Soils ¹ (LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer	No primary ption (Descritation, D=Depl ic Soil Field A1- Histosol	or secondary hydroperate of the depth neetion, RM=Reduced M Matrix Color (Moist) Indicators (chair)	rological i	docum Covered/ %	cators are r	d. cator or cc Grains; Local Moist) not presen edox Matrix lucky Minera	monfirm the month of the month	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si	luck (LRR I, J) Prairie Redox (urface (LRR G)	c Soils ¹ (LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No primary ption (Descr ntration, D=Depi ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge	or secondary hydroperate of the depth neetion, RM=Reduced M Matrix Color (Moist) Indicators (chair)	rological i	docum % ### Be if indi ### In	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G F3 - Depleted	d. cator or co Grains; Local Moist) not presen edox Matrix Mucky Minera lieyed Matrix Matrix Matrix	Mottle Mottle % tt):	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression	<u>c Soils¹</u> (LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No primary Iption (Description, D=Deption, D=Deption, D=Deption) A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	or secondary hydroperate of the depth neetion, RM=Reduced M. Matrix Color (Moist) Indicators (chaipedon stic in Sulfide Layers (LRR F) ck (LRR FGH)	eeded to olatrix, CS=C	docum docum %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy S F3 - Depleted F6 - Redox D	d. cator or cograins; Local Moist) not presen edox Matrix lucky Minera Eleyed Matrix Matrix ark Surface	Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark SF F16 - High F F18 - Reduc TF2 - Red F	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression Ced Vertic Parent Material	C Soils ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Pition (Description) (Descript	or secondary hydrometric beto the depth neetion, RM=Reduced M. Matrix Color (Moist) Indicators (chairpedon stic on Sulfide Layers (LRR F) ck (LRR FGH) de Below Dark Surface	eeded to olatrix, CS=C	docum Covered/	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy G F2 - Loamy G F6 - Redox D F7 - Depleted	d. cator or cc Grains; Local Moist) Moist) not presen edox Matrix lucky Minera lileyed Matrix Matrix ark Surface Dark Surface	Mottle %	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression and Vertic Parent Material Shallow Dark S	C Soils¹ (LRR F, G, H) DOS (LRR H, outside MLRA 72, 73) Surface
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	ption (Descr ntration, D=Depi	or secondary hydronescondary h	eeded to olatrix, CS=C	docum Coveredation :	cators are r S5 - Sandy R S6 - Stripped F7 - Loamy G F6 - Redox D F7 - Depleted F8 - Redox D	d. Cator or co Grains; Local Moist) Mot presen edox Matrix lucky Minera Bleyed Matrix Matrix artix artix Dark Surface Dark Surface pressions	monfirm the confirmation of the confirmation o	e absence of in ore Lining, M=Matri es Type	Location	Indicators 1 A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression Ced Vertic Parent Material	C Soils¹ (LRR F, G, H) DOS (LRR H, outside MLRA 72, 73) Surface
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2- Histic Ep A3- Black His A4- Hydroge A5- Strattfied A1- Deplete A12- Thick D S1- Sandy M S2- 2.5 cm M S3- 5 cm Mu S4- Sandy G	or secondary hydroperate of the depth neetion, RM=Reduced M. Matrix Color (Moist) Indicators (chaped of the color of the	rological i	docum Covered/	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy S7 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High Pli	d. cator or co Grains; Locat Moist) not presen edox Matrix lucky Minera leleyed Matrix Matrix ark Surface Dark Surfa epressions ains Depres	Mottle Mottle % tt): ce sions (ML	e absence of in ore Lining, M=Matrices Type Type RA 72, 73 of LRR	Location	Indicators 1 A9 - 1 cm M A16 - Coast F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (Prairie Redox	C Soils ¹ (LRR F, G, H) ONS (LRR H, outside MLRA 72, 73) Surface

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-159n48w6-b1				
					· · · · · · · · · · · · · · · · · · ·				
VEGETATION (Species identified in all uppercase are non-native species.) Tree Stratum (Plot size: 30 ft. radius)									
Tree Stratum (Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet				
1.	Species Name	76 COVEL	Dominant	iiiu.Status	Dominance Test Worksheet				
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)				
3.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)				
					Total Number of Descinant Opening Assess All Otrates (D)				
4.					Total Number of Dominant Species Across All Strata:(B)				
5.					(4/5)				
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 0.0% (A/B)				
7.									
8.					Prevalence Index Worksheet				
9.					Total % Cover of: Multiply by:				
10.					OBL spp. 0 x 1 = 0				
	Total Cover =	0			FACW spp. 5 x 2 = 10				
	•				FAC spp. 5 x 3 = 15				
Sapling/Shrub S	Stratum (Plot size: 15 ft. radius)				FACU spp. 40 x 4 = 160				
1.					UPL spp. 70 x 5 = 350				
2.					··· 				
3.					Total 120 (A) 535 (B)				
4.					. 555 (. 7)				
5.					Prevalence Index = B/A = 4.458				
6.					Frevalence index - B/A - 4.436				
	_								
7.									
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					Dominance Test is > 50%				
	Total Cover =	0	_		Prevalence Index is ≤ 3.0 *				
					Morphological Adaptations (Explain) *				
Herb Stratum (F	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *				
1.	Bromus inermis	70	Υ	UPL					
2.	Elymus repens	20	N	FACU	* Indicators of hydric soil and wetland hydrology must be				
3.	Phleum pratense	10	N	FACU	present, unless disturbed or problematic.				
4.	Cirsium arvense	5	N	FACU	Definitions of Vegetation Strata:				
5.	Ambrosia artemisiifolia	5	N	FACU	201111110110011011011011011				
6	Sonchus arvensis	5	N	FAC	Tree • w				
7.	Hordeum jubatum	5	N	FACW	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.				
	Tiordealii jabataiii	5	IN	FACW	70 10 10 10 10 10 10 10 10 10 10 10 10 10				
8.				_	Continue (Charach - Woody plants loss than 2 in DRH regardless of height				
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 =	120							
		-	_						
Woody Vine Str	ratum (Plot size: 30 ft. radius)								
1.	, , , , , , , , , , , , , , , , , , , ,								
2.									
3.					Hydrophytic Vegetation Present? N				
				_	Tryurophytic vegetation riesetit!				
5.									
4.	7.10								
D	Total Cover =	0	b. 1		all many and the other				
Remarks:	The sample point is dominated by smooth br	ome with a	n abunda	nce of qua	аск grass and timotny.				
Additional R	emarks:								
<u> </u>									