WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R									Date:	06/28/14
Applicant: Investigators	Enbridge EAB/RAJ			Subregion (MLRA or LRF				or LRR):	MLRA 56		County: State:	Kittson MN
Soil Unit:	Jnit: I132A				NWI Classification:							
Landform:	Side slope					Local Relief: LL					Sample Point	u-159n49w25-c2
Slope (%):	3 - 7%	nditions on the cit	Latitude: 4			Longitude:			Datum:	☑ No	Castiani	
Are Vegetation		nditions on the site				II ? (If no, exp		e normal circum	□Yes		Section: Township:	
Are Vegetation		☐ or Hydrology					740	☑ Yes	□No	COCITE:	Range:	Dir:
SUMMARY C				, p							1 15.1.901	
Hydrophytic '	Vegetation P	resent?	1	No					Hydric Soil	ls Present?	No	
Wetland Hydrology Present?				No							nt Within A W	
Remarks:	The sample	point is located u	pslope of	a wet	land and a v	waterbody	within a	large roadside	ditch. Rece	ent heavy ra	ains have affe	ected the area.
HYDROLOG	v											
		! ! !!	l the et en en	l N.Aire	·				1\-			
Wetland Hy Primary		icators (Check all	that app	ıy; iviin	ilmum of on	e primary	or two se	econdary requi	rea):	Secondary:		
A1 - Surface Water						B11 - Salt	Crust				B6 - Surface S	Soil Cracks
A2 - High Water Table				☐ B13 - Aquatic Fauna								Vegetated Concave Surface
	A3 - Saturatio B1 - Water Ma										B10 - Drainag	le Patterns Rhizospheres on Living Roots (tilled)
	B2 - Sedimen					C3 - Oxidiz	ed Rhizos	spheres on Living	Roots (not till		C8 - Crayfish	
	B3 - Drift Dep				_			duced Iron	,			n Visible on Aerial Imagery
	B4 - Algal Ma B5 - Iron Dep					C7 - Thin N Other (Exp		ace			D2 - Geomorp D5 - FAC-Neu	
		n Visible on Aerial Im	nagery		_	Other (Exp	naiii)					eaved Hummocks (LRR F)
	B9 - Water-St	ained Leaves										
Field Obser												
Field Obser		V00	r	Donth:		(in)						
Surface Water Present? Yes Depth: (in.) Wetland Hydrology Water Table Present? Yes Depth: (in.)								lydrology I	Present?	N		
Saturation Pr		Yes		Depth:		(in.)						_
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:												
Describe Rec	orded Data (s	tream gauge moni	itorina wel	II aeris	al nhotos nre	vious iner	nections)	if available:				
						evious insp	ections),	if available:				
Describe Reco		stream gauge, moni hydrology indicato				evious insp	pections),	if available:				
Remarks: SOILS	No wetland	hydrology indicato	ors were o	observ	ed.							
Remarks: SOILS Profile Descri	No wetland iption (Descri	hydrology indicated be to the depth ne	eeded to d	observ docum	red.	cator or co	onfirm th	e absence of in				
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Remarks: SOILS Profile Descri	No wetland iption (Descri	hydrology indicated be to the depth ne	eeded to d	observ docum	red.	cator or co	onfirm th	e absence of in ore Lining, M=Matr				
Remarks: SOILS Profile Descri	No wetland iption (Descri	hydrology indicate be to the depth ne etion, RM=Reduced M	eeded to d	observ docum	red.	cator or co Grains; Loca	onfirm the	e absence of in ore Lining, M=Matr		Texture		Remarks
Remarks: SOILS Profile Descri (Type: C=Concer	No wetland iption (Descri	hydrology indicate be to the depth ne etion, RM=Reduced M Matrix	eeded to d	docum Covered/	red. nent the indid Coated Sand C	cator or co Grains; Loca	onfirm the	e absence of in ore Lining, M=Matr	ix)	Texture		Remarks
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Remarks: SOILS Profile Descri (Type: C=Concer	No wetland	hydrology indicate be to the depth ne etion, RM=Reduced M Matrix Color (Moist)	eeded to o atrix, CS=C	docum covered/	nent the india (Coated Sand Coated Sand Sand Sand Sand Sand Sand Sand San	cator or co Grains; Loca Moist)	onfirm thition: PL=Pc Mottle %	e absence of in ore Lining, M=Matr es Type	ix)	Texture		Remarks
Remarks: SOILS Profile Descri (Type: C=Concer	No wetland iption (Descri	hydrology indicate be to the depth ne etion, RM=Reduced M Matrix Color (Moist)	eeded to o atrix, CS=C	docum covered/	red. nent the indid Coated Sand C	cator or co Grains; Loca Moist)	onfirm thition: PL=Pc Mottle %	e absence of in ore Lining, M=Matr	ix)		for Droblomati	
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No wetland iption (Descrintration, D=Depl	hydrology indicate be to the depth ne etion, RM=Reduced M Matrix Color (Moist)	eeded to o atrix, CS=C	docum covered/ %	ced. Inent the indicent the in	cator or co Grains; Loca Moist)	onfirm thition: PL=Pc Mottle %	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1	for Problemati	ic Soils ¹
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	No wetland iption (Descriptration, D=Deplementation, D=Deplementation) iric Soil Field A1- Histosol A2 - Histic Ep	be to the depth neetion, RM=Reduced Mi Matrix Color (Moist) Indicators (chippedon	eeded to o atrix, CS=C	docum covered/ %	ced. nent the indi Coated Sand (Color (I cators are r S5 - Sandy R S6 - Stripped	cator or co Grains; Loca Moist) Moist) not presen	onfirm the tion: PL=Po	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F	luck (LRR I, J) Prairie Redox (I	ic Soils ¹ LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	No wetland iption (Descrintration, D=Deplementation, D=Deplementation) ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) Indicators (chain ipedon etic)	eeded to o atrix, CS=C	docum covered/ %	ced. nent the india Coated Sand C Color (I cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M	Cator or co Grains; Loca Moist) Moist) not presen edox Matrix lucky Minera	onfirm the	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Cost F S7 - Dark Si	luck (LRR I, J) Prairie Redox (I urface (LRR G)	i <u>c Soils¹</u> LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	iption (Descrintration, D=Deplication) ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger	hydrology indicate be to the depth ne etion, RM=Reduced M: Matrix Color (Moist) Indicators (ch ipedon stic in Sulfide	eeded to o atrix, CS=C	docum covered/ %	color (f	cator or co Grains; Loca Moist) Moist) not presented with the control of the co	onfirm the	e absence of in ore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Cost F S7 - Dark St F16 - High F	luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressi	ic Soils ¹ LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Descrintration, D=Deplementation, D=Depl	be to the depth ne etion, RM=Reduced M Matrix Color (Moist) Indicators (chain ipedon etic)	eeded to o atrix, CS=C	docum docum %	ced. nent the india Coated Sand C Color (I cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M	Moist) ot presented with the control of the contro	onfirm the	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Cost F S7 - Dark S F16 - High F F18 - Reduc	luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressi	i <u>c Soils¹</u> LRR F, G, H)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	ntration, D=Deplintration, D=Deplintrati	be to the depth ne etion, RM=Reduced M. Matrix Color (Moist) Indicators (chairman and the color is suffide Layers (LRR F) ck (LRR FGH) d Below Dark Surface	eeded to of atrix, CS=C	docum covered/	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted	Moist) Moist) Mot presen edox Matrix lucky Minera leyed Matrix Matrix ark Surface Dark Surface	Mottle %	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Cost F S7 - Dark SI F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressi ced Vertic Parent Material Shallow Dark (1	ic Soils¹ LRR F, G, H)) ions (LRR H, outisde MLRA 72, 73) Surface
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	ntration, D=Deplintration, D=Deplintrati	hydrology indicate be to the depth ne etion, RM=Reduced M Matrix Color (Moist) Indicators (ch ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface	eeded to of atrix, CS=C	docum % % # if indi	color (for the indial Coated Sand Coated Sand Coated Sand Coated Sand Coated Sand Coated Sand Sand Sand Sand Sand Sand Sand San	Moist) Moist) Mot presented with the presented wi	Mottle % Mottle tion: PL=Pi Mottle with the second secon	e absence of in ore Lining, M=Matr es Type	Location	Indicators 1 A9 - 1 cm M A16 - Cost F S7 - Dark SI F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressi ed Vertic Parent Material	ic Soils¹ LRR F, G, H)) ions (LRR H, outisde MLRA 72, 73) Surface
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	ric Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogei A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G T Type:	be to the depth neetion, RM=Reduced M. Matrix Color (Moist) Indicators (chairman and the color stice of th	eeded to datrix, CS=C	docum Sovered/ %	cators are r S5 - Sandy R S6 - Stripped F1 - Loamy M F2 - Loamy G F3 - Depleted F6 - Redox D F7 - Depleted F6 - High Pla	Moist) Moist) Mot presented with the presented water	Mottle Mottle % tt):	e absence of infore Lining, M=Matrices Type Type RA 72, 73 of LRF	Location R H)	Indicators 1 A9 - 1 cm M A16 - Cost F S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (I urface (LRR G) Plains Depressi bed Vertic Parent Material Shallow Dark sin in Remarks) anydrophytic vegeta ad or problematic.	ic Soils¹ LRR F, G, H)) ions (LRR H, outisde MLRA 72, 73) Surface) ation and wetland hydrology must be present,

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-159n49w25-c2
VEGETATION	(Species identified in all uppercase are	e non-native	species.)		
Tree Stratum (Plot size: 30 ft. radius)				
	Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet
1.					
2.					Number of Dominant Species that are OBL, FACW, or FAC: 0 (A)
3.					(/
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					Total Number of Dominant Species Across Air Strata.
					Descript of Descript Original Prot Ass ORL FACING SERVICE (A/D)
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. 0 x 2 = 0
	•		_		FAC spp. 0 x 3 = 0
Sanling/Shruh 9	Stratum (Plot size: 15 ft. radius)				FACU spp. 40 x 4 = 160
1.	Stratum (Flot Size: 15 ft. radius)				UPL spp. 65
2.					οι Σορρ. <u>ου</u> Λ. Ο <u>320</u>
					T-(-) 405 (A) (C)
3.					Total 105 (A) 485 (B)
4.					
5.					Prevalence Index = B/A = 4.619
6.		-		-	
7.	Ī				
8.					Hydrophytic Vegetation Indicators:
9.					Rapid Test for Hydrophytic Vegetation
10.					
10.	Total Caver -				Dominance Test is > 50%
	Total Cover =	0	_		Prevalence Index is ≤ 3.0 *
					Morphological Adaptations (Explain) *
Herb Stratum (I	Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *
1.	Bromus inermis	60	Y	UPL	
2.	Cirsium arvense	30	Υ	FACU	* Indicators of hydric soil and wetland hydrology must be
3.	Poa pratensis	10	N	FACU	present, unless disturbed or problematic.
4.	Tragopogon dubious	5	N	NI	Definitions of Vegetation Strata:
5.					
6					Tree
7.					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.
8.				-	O II (OI I Washingtonle less than Cir. DDU assembles 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.
13.	Total O	105			,
	Total Cover =	105	_		
	ratum (Plot size: 30 ft. radius)				
1.					
2.					
3.					Hydrophytic Vegetation Present? N
5.					
4.					
	Total Cover =	0			
Demarks:	The upland is dominated by smooth brome.	U			
Remarks:	The uplant is dominated by smooth brome.				
				·	
Additional R	Remarks:				