WETLAND DETERMINATION DATA FORM Great Plains Region

D : 1/0:1		Lob								<u> </u>	00/00/44
Project/Site:		L3R								Date:	09/30/14
Applicant:		Enbridge RAJ/BJC			Cubragion	MIDA or I	DD\.	MIDAEG		County:	Pennington MN
Investigators Soil Unit:	I34A	RAJ/DJC			Subregion	n (MLRA or LF NWI Clas	•	MLRA 56		State:	IVIIN
Landform:	Depression	<u> </u>			cal Relief:		Silication	•		Sample Point:	w-153n44w12-c1
Slope (%):	0 - 2%		ude: 48.078			-96.253851		Datum:			W 1001144W12 01
		onditions on the site typ						✓ Yes	□ No	Section:	
Are Vegetation	, ,	, , , , , , , , , , , , , , , , , , ,		disturbed?	(·	nal circun	nstances pro		Township:	
Are Vegetation			turally prob					□ No		Range:	Dir:
SUMMARY C			y 1							Ü	
Hydrophytic \	Vegetation P	resent?	Yes					Hydric Soi	Is Present?	Yes	
Wetland Hyd	Irology Prese	ent?	Yes		-			Is This Sai	mpling Poin	t Within A We	etland? Yes
Remarks:	A shallow n	narsh community domi	nated by hy	ybrid cattail	and reed c	anary grass i	n a roads	ide ditch on	the north s	ide of County	Road 7.
HYDROLOG	Υ										
Wetland Hy	drology Ind	licators (Check all that	apply: Mir	nimum of on	e primary o	or two second	larv regui	red):			
Primary:	•	indutoro (orroan an araa	apply, wiii		o primary (31 (WO 0000110	iary roqui		Secondary:		
	A1 - Surface	Water			B11 - Salt C	Crust				B6 - Surface S	oil Cracks
	A2 - High Wa				B13 - Aquat						/egetated Concave Surface
	A3 - Saturation					gen Sulfide Odo eason Water Tal				B10 - Drainage	Patterns Rhizospheres on Living Roots (tilled)
	B2 - Sedimer					ed Rhizosphere:		Roots (not till	l є 🗆	C8 - Crayfish E	
	B3 - Drift Dep	•				nce of Reduced		(-	Visible on Aerial Imagery
✓	B4 - Algal Ma					luck Surface			☑	D2 - Geomorpl	
	B5 - Iron Dep		.,		Other (Explanation	ain)				D5 - FAC-Neut	
		on Visible on Aerial Imager tained Leaves	у						Ц	D7 - FIOSI-Hea	ved Hummocks (LRR F)
	Do Water C	tailled Edaved									
Field Observ	vations:										
Surface Water		Yes 🗆	Depth:		(in.)						
Water Table		Yes	Depth:		- (in.)			Wetland F	lydrology l	Present?	Y
Saturation Pr		Yes	Depth:		- (in.)						
			<u> </u>		• ` '						
Describe Reco	orded Data (ti t	ilabla.				
	<u>`</u>					ections), if ava			1	(. ((l l	
Remarks:	<u>`</u>	of wetland hydrology are						ne vegetatio	on and a ma	it of wetland n	nosses.
Remarks:	<u>`</u>							ne vegetatio	on and a ma	it of wetland n	nosses.
Remarks:	Indicators of	of wetland hydrology are	e present.	There is a c	lried algal r	mat interming	led with tl		on and a ma	it of wetland n	nosses.
Remarks: SOILS Profile Descri	Indicators of		e present.	There is a content the indi	lried algal r	mat interming	led with the	dicators.)	on and a ma	it of wetland n	nosses.
Remarks: SOILS Profile Descri	Indicators of	of wetland hydrology are	e present.	There is a content the indi	lried algal r	mat interming	led with the	dicators.)	on and a ma	it of wetland n	nosses.
Remarks: SOILS Profile Descri	Indicators of	of wetland hydrology are	e present.	There is a content the indi	lried algal r	mat interming	led with the	dicators.)	on and a ma	it of wetland n	nosses.
Remarks: SOILS Profile Descri	Indicators of	of wetland hydrology are ibe to the depth needed letion, RM=Reduced Matrix,	e present.	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the	dicators.)	on and a ma	it of wetland n	nosses. Remarks
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		t of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of	ibe to the depth needed letion, RM=Reduced Matrix,	d to docum	There is a content the indi	cator or co	nat interming nfirm the absorber PL=Pore Lini Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of In	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	d to docum CS=Covered/	There is a content the indicated Sand (cator or co Grains; Locati	nfirm the absolute Mottles	led with the control of the control	idicators.)		it of wetland n	
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of In	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	d to docum CS=Covered/	There is a content the indi	cator or co Grains; Locati	nfirm the absolute Mottles	led with the control of the control	idicators.)	Texture		Remarks
Remarks: SOILS Profile Descri (Type: C=Concer	Indicators of In	ibe to the depth needed letion, RM=Reduced Matrix Color (Moist)	d to docum CS=Covered/	There is a content the indicated Sand (cator or co Grains; Locati Moist)	nfirm the absolute Mottles	led with the control of the control	Location	Texture Indicators f	or Problematic	Remarks
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Indicators of ption (Description, D=Dep	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) I Indicators (check	d to docum CS=Covered/	There is a content the individual of the individ	cator or co Grains; Locati Moist) not present	nfirm the absolute Mottles	led with the control of the control	Location	Texture Indicators f A9 - 1 cm M	or Problematic	Remarks
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Indicators of ption (Description, D=Deportration, D=Deportrati	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) I Indicators (check depth needed letion)	b present. d to docum CS=Covered/	There is a content the individual of the individ	cator or co Grains; Locati Moist) not present edox Matrix Mucky Minera	nfirm the absoint PL=Pore Lini Mottles %	led with the control of the control	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si	or Problematic luck (LRR I, J) Prairie Redox (urface (LRR G)	Remarks Soils LRR F, G, H)
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Indicators of Indicators of Indicators of Indicators of Intration (Description (Des	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) I Indicators (check bipedon stice on Sulfide dayers (LRR F)	b to docum CS=Covered/	Color (S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depleted	cator or co Grains; Locati Moist) Moist) not present edox Matrix Mucky Minera Gleyed Matrix Matrix	nfirm the absoint PL=Pore Lini Mottles %	led with the control of the control	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduce	or Problematic luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressionsed Vertic	Remarks Soils LRR F, G, H)
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Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Indicators of In	ibe to the depth needed letion, RM=Reduced Matrix, Matrix Color (Moist) I Indicators (check bipedon stice on Sulfide d Layers (LRR F) lick (LRR FGH) led Below Dark Surface	b present. d to docum CS=Covered/ % here if indi	Color (S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depleted	cator or co Grains; Locati Moist) Moist) not present edox Matrix Mucky Minera Gleyed Matrix H Matrix Park Surface	nfirm the absoint PL=Pore Lini Mottles %	led with the control of the control	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	or Problematic luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depressionsed Vertic	Remarks Soils¹ LRR F, G, H) Ons (LRR H, outside MLRA 72, 73)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	Indicators of In	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) I Indicators (check bipedon stic en Sulfide d Layers (LRR F) lick (LRR FGH) led Below Dark Surface Dark Surface flucky Mineral	d to docum CS=Covered/	Color (Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Locati Moist) Moist) not present edox Matrix Mucky Minera Gleyed Matrix dark Surface ark Surface pepressions	nfirm the absoint PL=Pore Lini Mottles %	ence of iring, M=Matr	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	or Problematic luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression red Vertic Parent Material Shallow Dark S	Remarks Soils¹ LRR F, G, H) Ons (LRR H, outside MLRA 72, 73)
Remarks: SOILS Profile Descri (Type: C=Concer Depth (In.)	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	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) I Indicators (check bipedon stice on Sulfide d Layers (LRR F) lick (LRR FGH) led Below Dark Surface Dark Surface ducky Mineral Mucky Peat or Peat (LRR G	d to docum CS=Covered/	Color (Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	cator or co Grains; Locati Moist) Moist) not present edox Matrix Mucky Minera Gleyed Matrix dark Surface ark Surface pepressions	nfirm the absolute ion: PL=Pore Lini Mottles % ion: Date ion: Mottles % ce	ence of iring, M=Matr	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Expla	or Problematic luck (LRR I, J) Prairie Redox (urface (LRR G) Plains Depression red Vertic Parent Material Shallow Dark Stain in Remarks)	Remarks Soils¹ LRR F, G, H) Ons (LRR H, outside MLRA 72, 73) Surface
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WETLAND DETERMINATION DATA FORM

Great Plains Region

Project/Site:	L3R				Sample Point: w-153n44w12-c1
VEGETATIO	N (Species identified in all uppercase ar	re 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: 2 (A)
3.					`` <i></i> `` /
4.					Total Number of Dominant Species Across All Strata: 2 (B)
5.					- Total Namber of Borninant Operios 7th Strata(B)
					Persont of Deminent Charles That Are ODL FACIAL on FAC: 100 00/ (A/D)
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 50
	Total Cover =	0			FACW spp. 53 $x 2 = 106$
					FAC spp. $0 x 3 = 0$
Sapling/Shrub	Stratum (Plot size: 15 ft. radius)				FAC spp. $\begin{array}{c ccccccccccccccccccccccccccccccccccc$
1.					UPL spp. $0 x 5 = 0$
2.					
3.					- Total 103 (A) 156 (P)
					Total 103 (A) 156 (B)
4.					, _,_
5.					Prevalence Index = B/A = 1.515
6.					
7.					
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 *
	rotal covol				
11. 1. 011	District of Grand Production				Morphological Adaptations (Explain) *
	Plot size: 5 ft. radius)		\/	E A (C) A /	Problem Hydrophytic Vegetation (Explain) *
1.	Phalaris arundinacea	30	Y	FACW	
2.	Carex pellita	30	Υ	OBL	* Indicators of hydric soil and wetland hydrology must be
3.	Equisetum hyemale	20	N	FACW	present, unless disturbed or problematic.
4.	Typha X glauca	20	Ν	OBL	Definitions of Vegetation Strata:
5.	Symphyotrichum lanceolatum	3	N	FACW	
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast
7.					height (DBH), regardless of height.
8.					1
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.
					-
10.					4
11.					
12.					Herb - All herbaceous (non-woody) plants, regardless of size.
13.					
14.					
15.					Woody Vines - All woody vines, regardless of height.
	Total Cover =	103			1
	. 515.1.				
Moody Vino St	ratum (Plot size: 30 ft. radius)				
	Hatum (Flot Size. 30 ft. fadius)				-
1.					
2.					-
3.					Hydrophytic Vegetation Present?Y
5.					
4.					
	Total Cover =	0			
Remarks:			grass and	d woollv se	edge in a road ditch. Areas in the ditch are mostly cattail-dominated. Hydrophytic
	vegetation is present.		J. 5.55 Ciri		and the second s
	- agaication to proportion				
Additional F					
		•	•	•	ons: (1) there is not a strongly developed bed and bank, there is a rather gradual transition from
Ithe bottom of th	on ditable to the banks (2) there is no evident thelwest	though moud	na haa laft a		te that could obscure it (3) it is depend vegetated and there is a well-developed mose mat all the

This ditch was determined to fit the criteria of a wetland more so than a waterbody for the following reasons: (1) there is not a strongly developed bed and bank, there is a rather gradual transition from the bottom of the ditch to the banks, (2) there is no evident thalweg, though mowing has left deep tire ruts that could obscure it, (3) it is densely vegetated and there is a well-developed moss mat all the way across the ditch bottom, and (4) there is mounding over the existing pipelines that would interrupt flow and there is no evidence of flow channels over this mounding. There is a small, 12-inch culvert under a field access to the west but it is at least mostly filled with soil and probably does not convey an appreciable amount of water.