WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date: 06/23/14
Applicant: Enbridge							County: <u>Marshall</u>			
Investigators		NTT/KRG			_Subregio	on (MLR <i>A</i>	State: MN			
Soil Unit:	I133A						I Classification	:		Wetland ID:
Landform:	Depression		- 110 - 12 - 10 - 10		cal Relief		14.54	Datum		Sample Point: w-158n48w26-a1
Slope (%):	16 - 25%	onditions on the site t	atitude: 48.48			: -96.818		Datum:	: □ No	Community ID:
	<u> </u>		• •		al (If no, ex		·	☑ Yes		Section:
Are Vegetation			≅ignificantly ⊐aturally prol			Are	e normal circur ☑ Yes	nstances pro □ No	esent?	Township: Range: Dir:
Are Vegetation			Jaturany prod	nematic:			™ 1es	□ I N O		Range: Dir:
Hydrophytic \			Yes					Hydric Soi	ls Present?	Vos
Wetland Hyd	•		Yes		-					nt Within A Wetland? Yes
Remarks:		d is a wet meadow lo		a roadside	ditch dom	inated by	/ Flymus renen			
rtomanto.	THE Welland	a lo a wot moadow lo	oatoa witiiii	a roddoldo	altori dom	iii latoa by	/ Llymas repen	o and Typin	a ariguotiroi	
HYDROLOG	Y									
							,	D		
_	•	icators (Check all the	nat apply; Mir	nimum of or	e primary	or two s	econdary requi	red):	C	
<u>Primary:</u> ☑	<u>:</u> A1 - Surface	\Mator			B11 - Salt	Cruet			Secondary:	<u>:</u> B6 - Surface Soil Cracks
	A2 - High Wa				B13 - Aqu		l			B8 - Sparsely Vegetated Concave Surface
	A3 - Saturation					ogen Sulfic				B10 - Drainage Patterns
	B1 - Water M	arks			C2 - Dry S	Season Wa	ater Table			C3 - Oxidized Rhizospheres on Living Roots (tilled)
	B2 - Sedimer	•					spheres on Living	Roots (not till	le 🗀	C8 - Crayfish Burrows
	B3 - Drift Dep						duced Iron			C9 - Saturation Visible on Aerial Imagery
	B4 - Algal Ma B5 - Iron Dep				Other (Ex	Muck Surfa	ace		☑	D2 - Geomorphic Position D5 - FAC-Neutral Test
		on Visible on Aerial Imaç	gerv		Other (LX	piairij				D7 - Frost-Heaved Hummocks (LRR F)
		tained Leaves	57							
Field Observ	vations:									
Surface Wat	er Present?	Yes ☑	Depth:	4	(in.)			Watland L	Judralagu	Present? Y
Water Table	Present?	Yes □	Depth:		(in.)			wettand r	lydrology	
Saturation Pr	resent?	Yes □	Depth:		(in.)					
Describe Rec	orded Data (stream gauge, monito	ring well, aeri	al photos, pr	evious ins	pections).	if available:			
Remarks:	<u> </u>	d has pockets of wat						es		
- tomanto	THE Welland	a nac poonote or nat		ii, como rea						
SOILS										
		ibe to the depth need								
(Type: C=Concer	ntration, D=Dep	letion, RM=Reduced Matr	ix, CS=Covered	/Coated Sand	Grains; Loca	ation: PL=P	ore Lining, M=Mat	rix)		
	1	NA a tada a				N A = (1)				
1		Matrix			• • • • •	Mottl		T	┨	
Depth (In.)		Color (Moist)	%	Color (Moist)	%	Type	Location	Texture	Remarks
NRCS Hydr	ic Soil Field	Indicators (che	ck here if ind	icators are r	not preser	nt):				
		•			·	•			Indicators	for Problematic Soils ¹
	A1- Histosol			S5 - Sandy R	edox				A9 - 1cm M	uck (LRR I, J)
□ A2 - Histic Epipedon □ S6 - Stripped Matrix						☐ A16 - Cost Prairie Redox (LRR F, G, H)				
	A3 - Black Hi			F1 - Loamy N						urface (LRR G)
	A4 - Hydroge			F2 - Loamy (-	ΊΧ			•	Plains Depressions (LRR H, outisde MLRA 72, 73)
		l Layers (LRR F) ick (LRR FGH)		F3 - Depleted F6 - Redox D		Δ			F18 - Reduc	ced vertic Parent Material
		ed Below Dark Surface		F7 - Depleted				Ä		Shallow Dark Surface
	A12 - Thick D			F8 - Redox D				_ ☑	•	ain in Remarks)
	S1 - Sandy M			F16 - High Pl	ains Depre	ssions (ML	RA 72, 73 of LRI	R H)		
		Aucky Peat or Peat (LRI							1	
		icky Peat or Peat (LRR	-)							nydrophytic vegetation and wetland hydrology must be present,
	S4 - Sandy G	neyeu wallix							นเมษรร นิเรเนเซ	ed or problematic.
-										
Restrictive Layer	r Type:			Depth			Hydric Sc	oil Present?	Y Y	_

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Comparison Com	Dominance Test Worksheet Section Minror Section Min	Project/Site:	e: L3R				Sample Point: w-158n48w26-a1
Dominance Test Worksheet	Dominance Test Worksheet Section Minror Section Min						
Security Name	Secular Number of Dentinate Place Number of Dentinate Place Secular Number of Dentinate Species Rear of ORL, FACTY, or FACT		、	e non-native	species.)		
1	1	ee Stratum (·	O/ Cover	Deminant		Dominance Test Workshoot
Number of Dominant Spoots state to ORI, FACM, or FAC 1 (A)	Number of Comment Spaces have an ORL, PACH, or PAC1 (A)	1	<u>Species ivairie</u>	% Cover	Dominani	<u>Ina.Status</u>	Dominance rest worksneet
Total Number of Dominant Species Across All Strats. 2 (B)	Total Number of Dominant Species Andrea Al Strata 2 (B)						
Total Number of Donnant Species Across All Strates	Total Numeer of Dominant Spaces Across All Strate 2 (B)						Number of Dominant Species that are OBL, FACW, or FAC:(A)
Parcent of Dominant Spaces That Are OBL, FACV, or FAC 50.0% (A/B)	Pecant of Dominant Species Trat Are DEL FACW, or FAC: 50.0% (A/B)						
Percent of Dominan Species That Are OBL PACKY, or PACL 50.0% (A/B)	Prevalence Index Worksheet Prevalence Ind						Total Number of Dominant Species Across All Strata: 2 (B)
Prevalence Index Worksheet	Prevalence Index Worksheet	5.					
Prevalence Index Worksheet	Prevalence Index Worksheet	6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 50.0% (A/B)
B.	Section Sect						<u> </u>
10.	10.						Prevalence Index Worksheet
Total Cover = 0	Total Cover = 0						Total % Cover of: Multiply by:
2.	2.						$ \begin{array}{cccccccccccccccccccccccccccccccccccc$
2.	2.	10.	Total Cover –	0			
2.	2.		10101 00101 -	U	_		
2.	2.	" · · · · /Ob · · · · · b	O (D				$\begin{array}{cccccccccccccccccccccccccccccccccccc$
2.	2.	apling/Snrub (Stratum (Plot size: 15 π. radius)				FACU spp. 35
2.	2.	<u> </u>					UPL spp0
A	A						
Prevalence Index = B/A =	Prevalence Index = B/A = 2.400						Total 75 (A) 180 (B)
Hydrophytic Vegetation Indicators: Section Stratum (Plot size: 5 ft. radius) Problem Hydrophytic Vegetation (Explain)	6. 7. 8. 9. 1. 1. 1. 1. 1. 1. 1	4.					
Hydrophytic Vegetation Indicators: Section Stratum (Plot size: 5 ft. radius) Problem Hydrophytic Vegetation (Explain)	6. 7. 8. 9. 1. 1. 1. 1. 1. 1. 1	5.					Prevalence Index = B/A = 2.400
Total Cover =	Hydrophytic Vegetation Indicators: Section	6.					1
B.	Hydrophytic Vegetation Indicators: Sapid Test for Hydrophytic Vegetation Dominance Test is > 50%						
Page	Rapid Test for Hydrophytic Vegetation Dominance Test is > 50%						Hydrophytic Vegetation Indicators:
Dominance Test Is > 50% X Prevalence Index is \$ 3.0 ° Morphological Adaptations (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Selection (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Selection Strate * Problem Hydrophyt	Dominance Test is > 50% X Prevalence Index is \$ 3.0 ° Morphological Adaptations (Explain) ° Problem Hydrophytic Vegetation Strate: 10						
Total Cover = 0	Total Cover = 0		_				
Morphological Adaptations (Explain) * Problem Hydrophytic Vegetation (Explain) * Problem Hydrophytic Vege	Morphological Adaptations (Explain) * Problem Hydrophytic Vegetation (Explain) *	10.	Total Cover –	0			
Problem Hydrophytic Vegetation (Explain) *	Problem Hydrophytic Vegetation (Explain) *		Total Cover –		_		
1. Elymus repens 30	1. Elymus repens 30						
2.	2. Typhe angustrotics 2. O Y OBL 3. Alisma minister 4. Corsum anverse 5. N FACU 5. Alisma gramineum 5. N OBL 6. Persicaria puncrata 7. OBL 8. OBL 9. OBL 11. OBL 12. OBL 13. OBL 14. OBL 15. OBL 16. OBL 16. OBL 17. OBL 17. OBL 18. OBL 19. OBL 19. OBL 11. OBL 12. OBL 13. OBL 14. OBL 15. OBL 16. OBL 17. OBL 18. OBL 18. OBL 19. O	. ,	(Plot size: 5 ft. radius)			=	Problem Hydrophytic Vegetation (Explain) *
All many involve	A Allema triviale 10 N OBL present, unless disturbed or problematic. 4. Ciristim arwanes 5 N FACU 5 N OBL 6 Pearistania punctata 5 N OBL 7.		Elymus repens		<u>'</u>		
A	4. Ciristim arrenize 5 N FACU 5. Altisma gramineum 5 N OBL 6 Persizaria punctata 5 N OBL 7.	2.	Typha angustifolia	20	Υ		, , , ,
S	5 N OBL 6 Persicaria punctata 5 N OBL 7. Sapling/Shrub - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 8. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. 10. Herb - All herbaceous (non-woody) plants, regardless of size. 13. Herb - All woody vines, regardless of height. 14. Woody Vines - All woody vines, regardless of height. 15. Woody Vines - All woody vines, regardless of height. 16. Hydrophytic Vegetation Present? Y Hydrophytic Vegetat	3.	Alisma triviale	10	N	OBL	present, unless disturbed or problematic.
S	5 N OBL 6 Persicaria punctata 5 N OBL 7. Sapling/Shrub - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. 8. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. 10. Herb - All herbaceous (non-woody) plants, regardless of size. 13. Herb - All woody vines, regardless of height. 14. Woody Vines - All woody vines, regardless of height. 15. Woody Vines - All woody vines, regardless of height. 16. Hydrophytic Vegetation Present? Y Hydrophytic Vegetat	4.	Cirsium arvense	5	N	FACU	Definitions of Vegetation Strata:
Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. Herb - All herbaceous (non-woody) plants, regardless of size. Woody Vines - All woody vines, regardless of height. Total Cover =	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast height (DBH), regardless of height.		Alisma gramineum		N		1
Total Cover = Total Cover = October	7.						Tree - Woody plants 3 in (7 6cm) or more in diameter at breast
Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.	8. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. 10. Herb - All herbaceous (non-woody) plants, regardless of size. 13. Herb - All woody vines, regardless of height. Total Cover =75 Woody Vines - All woody vines, regardless of height. Total Cover =75 Hydrophytic Vegetation Present?Y 2. Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height. Herb - All herbaceous (non-woody) plants, regardless of size. Woody Vines - All woody vines, regardless of height. Hydrophytic Vegetation Present?Y Benarks:		T Growing parrotate				
9.	9.						1
10.	10.						- Woody plants less than 3 in DRH, regardless of height
11.	11.						Sapling/Snrup - Woody Plants less than 3 lin. DBH, Tegardless of height.
12.	Herb - All herbaceous (non-woody) plants, regardless of size. 13.						
13.	13.						
14.	14.	12.					Herb - All herbaceous (non-woody) plants, regardless of size.
14.	14.	13.					1
Total Cover =	Total Cover =		i				1
Total Cover =	Total Cover =						- Woody Vines - All woody vines, regardless of height.
Voody Vine Stratum (Plot size: 30 ft. radius)	Coody Vine Stratum (Plot size: 30 ft. radius)		Total Cover –	75			
1.	1.		Total Gover –_	10	_		
1.	1.						
3. Hydrophytic Vegetation Present? Y 5. 4. Total Cover = 0 Remarks:	3. Hydrophytic Vegetation Present? Y 5. Total Cover = 0 emarks: dditional Remarks:	Voody Vine St	ratum (Plot size: 30 π. radius)				
3. Hydrophytic Vegetation Present? Y 5. 4. Total Cover = 0 Remarks:	3. Hydrophytic Vegetation Present? Y 5. Total Cover = 0 emarks: dditional Remarks:	<u> </u>					
5. 4. Total Cover = 0 Remarks:	5. 4. Total Cover = 0 emarks:						
4. Total Cover = 0 Remarks:	4. Total Cover = 0 emarks: dditional Remarks:						Hydrophytic Vegetation Present?Y
Total Cover = 0 Remarks: Additional Remarks:	Total Cover = 0 emarks: dditional Remarks:	5.					
Remarks:	emarks: dditional Remarks:	4.					
Remarks:	emarks: dditional Remarks:		Total Cover =	0			
Additional Remarks:	dditional Remarks:						
ne wetland vegetation is mixed with various upland and wetland species. Standing water covers some areas, resulting in sparse vegetation.	e wetland vegetation is mixed with various upland and wetland species. Standing water covers some areas, resulting in sparse vegetation.						
		he wetland	vegetation is mixed with various upland and we	etland spe	cies. Stan	iding water	r covers some areas, resulting in sparse vegetation.
				•		.	