WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date: <u>06/23/14</u>	
Applicant:	• •						County: Marshall				
	vestigators: NTT/KRG				_Subregio	on (MLRA	State: MN				
Soil Unit:	I133A			_			I Classification	:		Wetland ID:	
Landform:	Depression				cal Relief		2600	Deture		Sample Point: w-158n48w22-a1	
Slope (%):	0 - 2%	nditions on the site ty	titude: 48.49			e: -96.827		Datum:	□ No	Community ID: Section:	
Are Vegetation			•				e normal circur			1	
Are Vegetation		, ,	aturally pro	disturbed?		Ale	e normai circui ☑ Yes	⊓ No	esent!	Township: Range: Dir:	
SUMMARY C			aturally pro	biematic:			E 163	□ 1 10		Nange.	
			Yes					Hydric Soi	ls Present?	Yes	
Hydrophytic Vegetation Present? Wetland Hydrology Present?					_		Hydric Soils Present? Is This Sampling Points				
Remarks:			Yes sional wet r	neadow loca	ated betwe	en two ac	gricultural field			ine corridor. The vegetation is dominated by	
	Rumex ster	· · · · · · · · · · · · · · · · · · ·					g				
HYDROLOG'											
		inators (Chaok all the	et opply: Mi	nimum of on	o primarı	or two or	ooondory roqui	rod\.			
Primary:	•	icators (Check all tha	at apply; ivii	nimum oi or	ie primary	or two se	econdary requi	rea):	Secondary:		
<u>Filinaly.</u> ☑	<u>.</u> A1 - Surface	Water		П	B11 - Salt	Crust				B6 - Surface Soil Cracks	
						atic Fauna		B8 - Sparsely Vegetated Concave Surface			
	A3 - Saturation					ogen Sulfid				B10 - Drainage Patterns	
	B1 - Water M					Season Wa		Deete (set till		C3 - Oxidized Rhizospheres on Living Roots (tilled)	
	B2 - Sedimer B3 - Drift Dep	•					spheres on Living duced Iron	Roots (not till		C8 - Crayfish Burrows C9 - Saturation Visible on Aerial Imagery	
	B4 - Algal Ma					Muck Surfa				D2 - Geomorphic Position	
	B5 - Iron Dep	osits			Other (Ex	plain)				D5 - FAC-Neutral Test	
		on Visible on Aerial Image	ery							D7 - Frost-Heaved Hummocks (LRR F)	
	B9 - Water-S	tained Leaves									
Field Observ	votiono										
Field Observ			5 . 41	4	(!: \						
Surface Wate		Yes ☑	Depth		_ (in.)			Wetland F	lydrology	Present? Y	
Water Table		Yes	Depth		_ (in.)					 -	
Saturation Pr	resent?	Yes	Depth		(in.)						
Describe Rec	orded Data (stream gauge, monitori	ng well, aer	ial photos, pr	evious ins	nections)	if available:				
Remarks: The wetland has scattered pockets of water throughout its area, reaching a maximum depth of 4 inches.											
Remarks:	The wetland					• • •		oth of 4 inch	es.		
	The wetland					• • •		oth of 4 inch	es.		
SOILS		d has scattered pocke	ets of water	throughout	its area, r	eaching a	a maximum dep		es.		
SOILS Profile Descri	iption (Descr	d has scattered pocket	ets of water	throughout	its area, r	eaching a	a maximum dep	ndicators.)	es.		
SOILS Profile Descri	iption (Descr	d has scattered pocke	ets of water	throughout	its area, r	eaching a	a maximum dep	ndicators.)	es.		
SOILS Profile Descri	iption (Descr	d has scattered pocket	ets of water	throughout	its area, r	eaching a	a maximum dep e absence of ir ore Lining, M=Mat	ndicators.)	es.		
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)	es. Texture	Remarks	
SOILS Profile Descri	iption (Descr	d has scattered pocker ibe to the depth needeletion, RM=Reduced Matrix	ets of water ed to docur , CS=Covered	throughout	its area, r icator or c Grains; Loc	eaching a	a maximum dep e absence of ir ore Lining, M=Mat	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer	iption (Descr	d has scattered pocket ibe to the depth needed letion, RM=Reduced Matrix Matrix	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r icator or c Grains; Loc	eaching a	e absence of interest of the control	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Descr	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist)	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r	eaching a	e absence of ir ore Lining, M=Mat	ndicators.)		Remarks	
SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Descr	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist)	ets of water ed to docur , CS=Covered	throughout ment the indi	its area, r	eaching a	e absence of interest of the control	ndicators.)	Texture		
SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Descr ntration, D=Depl	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist)	ets of water ed to docur , CS=Covered	throughout ment the indid/Coated Sand Color (its area, r	eaching a	e absence of ir ore Lining, M=Mat	Location	Texture	or Problematic Soils ¹	
SOILS Profile Descri (Type: C=Concer Depth (In.)	iption (Descr ntration, D=Depl ric Soil Field	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check	ets of water ed to docur , CS=Covered	throughout ment the indid/Coated Sand Color (dicators are in the state of the stat	its area, r	eaching a	e absence of ir ore Lining, M=Mat	Location	Texture Indicators f A9 - 1cm Mo	For Problematic Soils ¹ uck (LRR I, J)	
SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	iption (Descr ntration, D=Depl	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist) Indicators (checker)	ets of water ed to docur , CS=Covered	throughout ment the indid/Coated Sand Color (icator or of Grains; Local Moist) Moist) Redox Matrix	eaching a confirm the ation: PL=Po	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Me A16 - Cost F	or Problematic Soils ¹	
SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	ric Soil Field A1- Histosol A2 - Histic Ep	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist) Indicators (checken)	ets of water ed to docur , CS=Covered	throughout ment the indid/Coated Sand Color (Stock Sandy R	icator or of Grains; Locator or of Grains; L	meaching a seaching a	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Me A16 - Cost F S7 - Dark Se	For Problematic Soils ¹ uck (LRR I, J) Prairie Redox (LRR F, G, H)	
SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	iption (Descr ntration, D=Depl A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist) Indicators (checked) Sipedon (Stice of Sulfide of Layers (LRR F)	ets of water ed to docur , CS=Covered	throughout ment the indid/Coated Sand Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted	icator or of Grains; Locator or of Grains; L	mottle mottle	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Mo A16 - Cost F S7 - Dark So F16 - High F F18 - Reduce	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check objection is sulfide in Sulfide in Layers (LRR F) lick (LRR FGH)	ed to docur , CS=Covered %	throughout ment the indid/Coated Sand Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D	icator or of Grains; Locator o	eaching a confirm the ation: PL=Per Mottle % Int): all rix e	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Mo A16 - Cost F S7 - Dark So F16 - High F F18 - Reduce TF2 - Red P	For Problematic Soils ¹ Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check objection is sulfide in Sulfide is Layers (LRR F) lick (LRR FGH) led Below Dark Surface	ed to docur , CS=Covered	color (S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy N F3 - Depleted F6 - Redox D F7 - Depleted	icator or of Grains; Local Moist) Moist) Redox Muck Miner Gleyed Matrix Dark Surfaced Dark Surfaced Dark Surfaced Matrix	eaching a confirm the ation: PL=Point in the ation: PL=Point in the ation in the at	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Mi A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist) Indicators (checked in Sulfide in Sulf	ed to docur , CS=Covered %	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Moist) Redox d Matrix Muck Miner Gleyed Matrix Dark Surface of Dark Surf	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1cm Mi A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	For Problematic Soils ¹ Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material	
SOILS Profile Descri (Type: C=Concer Depth (In.) NRCS Hydr	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M	ibe to the depth needeletion, RM=Reduced Matrix Matrix Color (Moist) Indicators (checked in Sulfide in Sulf	ed to docur, CS=Covered % here if inc	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Moist) Redox d Matrix Muck Miner Gleyed Matrix Dark Surface of Dark Surf	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Mat	Location	Indicators f A9 - 1cm Mi A16 - Cost F S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check line) Sipedon stic in Sulfide in Sulfid	ed to docur, CS=Covered % here if incomplete in the control of t	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Moist) Redox d Matrix Muck Miner Gleyed Matrix Dark Surface of Dark Surf	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1cm Ma A16 - Cost F S7 - Dark Sa F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface Lain in Remarks)	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm N	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check line) Sipedon stic in Sulfide in Sulfid	ed to docur, CS=Covered % here if incomplete in the control of t	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Moist) Redox d Matrix Muck Miner Gleyed Matrix Dark Surface of Dark Surf	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1cm Ma A16 - Cost F S7 - Dark Sa F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	For Problematic Soils ¹ Fuck (LRR I, J) Prairie Redox (LRR F, G, H) Furface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Fixed Vertic Farent Material Shallow Dark Surface Shin in Remarks)	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check line) Sipedon stic in Sulfide in Sulfid	ed to docur, CS=Covered % here if incomplete in the control of t	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Grains; Locator or of Moist) Redox d Matrix Muck Miner Gleyed Matrix Dark Surface of Dark Surf	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Mati es Type	Location	Indicators f A9 - 1cm Ma A16 - Cost F S7 - Dark Sa F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface Lain in Remarks)	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge A5 - Stratified A1- Deplete A1- Deplete A1- Sandy M S2 - 2.5 cm M S3 - 5 cm Mu S4 - Sandy G	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check line) Sipedon stic in Sulfide in Sulfid	ed to docur, CS=Covered % here if incomplete in the control of t	color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	icator or of Grains; Local Moist) Moist) Moist) Redox Muck Miner Gleyed Matrix Dark Surfaced Dark	mottle Mottle Mottle mt):	e absence of ir ore Lining, M=Maties Type	Location	Indicators f A9 - 1cm Ma A16 - Cost F S7 - Dark Sa F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface Lain in Remarks)	
SOILS Profile Descri (Type: C=Concer Depth (In.)	A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroge 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	ibe to the depth needed letion, RM=Reduced Matrix Matrix Color (Moist) Indicators (check line) Sipedon stic in Sulfide in Sulfide in Sulfide in Sulfide in Sulfide in Sulfide in Surface in Surfac	ed to docur , CS=Covered % here if ind	throughout ment the indid/Coated Sand Color (S5 - Sandy R S6 - Stripped F1 - Loamy R F2 - Loamy R F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High P	icator or of Grains; Local Moist) Moist) Moist) Moist) Moist) Moist Muck Miner of Matrix Muck Miner of Matrix Dark Surfact of Dark Sur	eaching a confirm the ation: PL=Pour Mottle %	e absence of ir ore Lining, M=Maties Type RA 72, 73 of LRE	Location Brising High Present?	Indicators of A9 - 1cm May A16 - Cost Find Find Find Find Find Find Find Find	For Problematic Soils Luck (LRR I, J) Prairie Redox (LRR F, G, H) Lurface (LRR G) Plains Depressions (LRR H, outisde MLRA 72, 73) Leed Vertic Parent Material Shallow Dark Surface Lain in Remarks)	

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-158n48w22-a1				
					•				
VEGETATIO	N (Species identified in all uppercase are	e non-native	species.)						
Tree Stratum (Plot size: 30 ft. radius)								
	<u>Species Name</u>	% Cover	<u>Dominant</u>	Ind.Status	Dominance Test Worksheet				
1.									
2.					Number of Dominant Species that are OBL, FACW, or FAC:(A)				
3.									
4.					Total Number of Dominant Species Across All Strata:(B)				
5.									
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)				
7.									
8.					Prevalence Index Worksheet				
9.					Total % Cover of: Multiply by:				
10.					OBL spp. <u>5</u> x 1 = <u>5</u>				
Total Cover =				FACW spp25					
					OBL spp. 5				
Sapling/Shrub S	Stratum (Plot size: 15 ft. radius)				FACU spp. $\underline{\hspace{1cm}}$ 10 $\underline{\hspace{1cm}}$ $x 4 = \underline{\hspace{1cm}}$ 40				
1.					UPL spp. $0 x 5 = 0$				
2.									
3.					Total <u>45</u> (A) <u>110</u> (B)				
4.									
5.					Prevalence Index = B/A = 2.444				
6.									
7.									
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					Dominance Test is > 50%				
	Total Cover =	0			X Prevalence Index is ≤ 3.0 *				
					Morphological Adaptations (Explain) *				
Herb Stratum (Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *				
1.	Rumex stenophyllus	25	Υ	FACW					
2.	Elymus repens	10	Υ	FACU	* Indicators of hydric soil and wetland hydrology must be				
3.	Alisma gramineum	5	N	OBL	present, unless disturbed or problematic.				
4.	Apocynum cannabinum	5	N	FAC	Definitions of Vegetation Strata:				
5.									
6					Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast				
7.					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.					1				
14.									
15.					Woody Vines - All woody vines, regardless of height.				
	Total Cover =	45							
	10tai 00voi –	10	_						
Woody Vine St	ratum (Plot size: 30 ft. radius)								
1	ratum (1 lot size. 50 ft. radius)								
2.									
3.					Hydrophytic Vegetation Present?				
5.									
4.									
7.	Total Cover =	0							
Remarks:	10.01 00001 =								
rtomanto.									
A de l'ité annuel Promontes									
Additional Remarks:									
The vegetation is sparse due to the prevalence of bare soil and standing water.									