WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:		L3R								Date: 09/25/14
Applicant:							County: Pennington			
Investigators:		MRK/OTG		Subregion (MLRA or LRR): MLRA 56						State: MN
Soil Unit:	I16F			_			I Classification:			
Landform:	Dip				cal Relief:					Sample Point: w-153n43w29-k1
Slope (%):	0 - 2%		ude: 48.03				0198333	Datum:		
		nditions on the site typ			ar? (If no, exp	ī			□ No	Section:
Are Vegetation				disturbed?		Are	e normal circum	•	esent?	Township:
Are Vegetation			turally pro	blematic?			Yes	□ No		Range: Dir:
SUMMARY O										
Hydrophytic \			Yes		_				Is Present?	
Wetland Hyd			Yes					Is This Sa	mpling Poir	t Within A Wetland? Yes
Remarks:	The wetland	d sample point is within	a hardwo	od swamp c	lominated	by greer	n ash.			
HYDROLOG\	Y									
Wetland Hy	drology Ind	icators (Check all that	apply: Mi	nimum of on	e primary	or two s	econdary requir	ed):		
Primary:		one (one on that	apply, iiii		o primary	0. 1	ocoridary roquii	<i>-</i>	Secondary:	
	A1 - Surface \	Nater			B11 - Salt	Crust		B6 - Surface Soil Cracks		
	A2 - High Wa				B13 - Aqua				V	B8 - Sparsely Vegetated Concave Surface
	A3 - Saturatio				C1 - Hydro					B10 - Drainage Patterns
	B1 - Water Marker Market B2 - Sedimen				C2 - Dry So		spheres on Living	Poote (not till	 	C3 - Oxidized Rhizospheres on Living Roots (tilled) C8 - Crayfish Burrows
	B3 - Drift Dep	•			C4 - Prese			rtoots (not till		C9 - Saturation Visible on Aerial Imagery
	B4 - Algal Ma				C7 - Thin N				✓	D2 - Geomorphic Position
	B5 - Iron Dep				Other (Exp	lain)				D5 - FAC-Neutral Test
		n Visible on Aerial Imager	y							D7 - Frost-Heaved Hummocks (LRR F)
	B9 - Water-St	ained Leaves								
Field Observ					<i>(</i> !)					
Surface Water		Yes	Depth:		_ (in.)			Wetland F	Hydrology	Present? Y
Water Table		Yes	Depth:		_ (in.)				.,	——————————————————————————————————————
Saturation Pr	esent?	Yes	Depth:		_ (in.)					
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:										
Remarks:	The wetland	d is located in a dip and	d is sparse	elv vegetated	<u>.</u>	,				
SOILS										
	ption (Descri	be to the depth neede	d to docun	nent the indi	cator or co	onfirm th	e absence of in	dicators.)		
(Type: C=Concen	ntration, D=Depl	etion, RM=Reduced Matrix,	CS=Covered	I/Coated Sand	Grains; Loca	tion: PI -P				
						11011. 1 L—I	ore Lining, M=Matri	x)		
						(IOI). I L=I	ore Lining, M=Matri	x)		
		Matrix				Mottle	<u> </u>	x)		
Depth (In.)		Matrix Color (Moist)	%	Color (Moist)		<u> </u>	Location	Texture	Remarks
Depth (In.)	Hue_10YR		% 100	Color (Moist)	Mottle	es		Texture CL	Remarks
. , ,	Hue_10YR Hue_10YR	Color (Moist) 2/1		Color (Moist)	Mottle	es		Texture CL SICL	Remarks
0-8	Hue_10YR	Color (Moist) 2/1 3/1	100		,	Mottle	es		CL	Remarks
0-8 8-11		Color (Moist) 2/1 3/1	100 100	Hue_10YR	5/8	Mottle %	es Type C	Location	CL SICL SICL	Remarks
0-8 8-11	Hue_10YR	Color (Moist) 2/1 3/1	100 100		,	Mottle %	es Type	Location	CL SICL	Remarks
0-8 8-11	Hue_10YR	Color (Moist) 2/1 3/1	100 100	Hue_10YR	5/8	Mottle %	es Type C	Location	CL SICL SICL	Remarks
0-8 8-11 11-20	Hue_10YR Hue_10YR	2/1 3/1 4/1	100 100 75	Hue_10YR Hue_2.5Y	5/8 5/3	Mottle % 5 20	es Type C	Location	CL SICL SICL	Remarks
0-8 8-11	Hue_10YR Hue_10YR	2/1 3/1 4/1	100 100 75	Hue_10YR	5/8 5/3	Mottle % 5 20	es Type C	Location	CL SICL SICL SICL	
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR ic Soil Field	2/1 3/1 4/1	100 100 75	Hue_10YR Hue_2.5Y	5/8 5/3 not presen	Mottle % 5 20	es Type C	Location M M	SICL SICL SICL	or Problematic Soils ¹
0-8 8-11 11-20	Hue_10YR Hue_10YR ic Soil Field A1- Histosol	Color (Moist) 2/1 3/1 4/1 Indicators (check	100 100 75	Hue_10YR Hue_2.5Y licators are r	5/8 5/3 not presen	Mottle % 5 20	es Type C	Location	SICL SICL SICL SICL Indicators f	For Problematic Soils ¹ Juck (LRR I, J)
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR ic Soil Field	Color (Moist) 2/1 3/1 4/1 Indicators (check	100 100 75	Hue_10YR Hue_2.5Y licators are r S5 - Sandy R S6 - Stripped	5/8 5/3 not presen edox Matrix	Mottle % 5 20	es Type C	Location	CL SICL SICL SICL Indicators f A9 - 1 cm M A16 - Coast	For Problematic Soils ¹ luck (LRR I, J) Prairie Redox (LRR F, G, H)
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep	Color (Moist) 2/1 3/1 4/1 Indicators (check	100 100 75	Hue_10YR Hue_2.5Y licators are r	5/8 5/3 not presen edox Matrix fucky Miner	Mottle % 5 20 t):	es Type C	Location M M	CL SICL SICL SICL Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S	For Problematic Soils ¹ Juck (LRR I, J)
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F)	100 100 75	Hue_10YR Hue_2.5Y licators are r S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depleted	5/8 5/3 not presen edox Matrix flucky Miners Gleyed Matrix I Matrix	Mottle % 5 20 t):	es Type C	M M	CL SICL SICL SICL SICL Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduce	For Problematic Soils ¹ Fluck (LRR I, J) Prairie Redox (LRR F, G, H) Flains Depressions (LRR H, outside MLRA 72, 73) Red Vertic
0-8 8-11 11-20 NRCS Hydri	ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH)	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depleted F6 - Redox D	5/8 5/3 not presen edox Matrix Mucky Minera Bleyed Matrix I Matrix ark Surface	Mottle % 5 20 t):	es Type C	M M	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduct TF2 - Red F	For Problematic Soils ¹ Suck (LRR I, J) Prairie Redox (LRR F, G, H) surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Seed Vertic Parent Material
0-8 8-11 11-20 NRCS Hydri	ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Mu A11 - Deplete	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface	100 100 75 here if inc	Hue_10YR Hue_2.5Y licators are r S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy C F3 - Depleted F6 - Redox D F7 - Depleted	5/8 5/3 not presen edox Matrix Mucky Minera Bleyed Matrix I Matrix ark Surface	Mottle % 5 20 t):	es Type C	M M	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	For Problematic Soils ¹ Fluck (LRR I, J) Prairie Redox (LRR F, G, H) Flains Depressions (LRR H, outside MLRA 72, 73) Fixed Vertic Parent Material Shallow Dark Surface
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix fleyed Matrix I Matrix eark Surface Dark Surface	Mottle % 5 20 t):	es Type C C	M M	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	For Problematic Soils ¹ Suck (LRR I, J) Prairie Redox (LRR F, G, H) Furface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Fixed Vertic Parent Material
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix fleyed Matrix I Matrix eark Surface Dark Surface	Mottle % 5 20 t):	es Type C	M M	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very	For Problematic Soils ¹ Juck (LRR I, J) Prairie Redox (LRR F, G, H) Jurface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) Jured Vertic Parent Material Shallow Dark Surface
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix fleyed Matrix I Matrix eark Surface Dark Surface	Mottle % 5 20 t):	es Type C C	M M	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark S F16 - High F F18 - Reduc TF2 - Red F TF12 - Very Other (Expla	For Problematic Soils ¹ Fluck (LRR I, J) Prairie Redox (LRR F, G, H) Flains Depressions (LRR H, outside MLRA 72, 73) Fixed Vertic Parent Material Shallow Dark Surface
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix fleyed Matrix I Matrix eark Surface Dark Surface	Mottle % 5 20 t):	es Type C C	M M	Indicators of Page 14 Page 14 Page 14 Page 14 Page 15 Page 15 Page 16	For Problematic Soils¹ Juck (LRR I, J) Prairie Redox (LRR F, G, H) Plains Depressions (LRR H, outside MLRA 72, 73) Red Vertic Parent Material Shallow Dark Surface ain in Remarks)
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel A5 - Stratified A9 - 1 cm Mu A11 - Deplete A12 - Thick D S1 - Sandy M S2 - 2.5 cm M S3 - 5 cm Mu	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix fleyed Matrix I Matrix eark Surface Dark Surface	Mottle % 5 20 t):	es Type C C	M M	Indicators of Page 14 Page 14 Page 14 Page 14 Page 15 Page 15 Page 16	For Problematic Soils¹ Suck (LRR I, J) Prairie Redox (LRR F, G, H) surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) seed Vertic Parent Material Shallow Dark Surface ain in Remarks) sydrophytic vegetation and wetland hydrology must be present,
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydrogel 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	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D	5/8 5/3 not presen edox Matrix Gleyed Matrix ark Surface I Dark Surface epressions ains Depres	Mottle % 5 20 t):	es Type C C C	Location M M ————————————————————————————————	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark SF16 - High FF18 - Reduct TF2 - Red FTF12 - Very Other (Explain Indicators of Funless disturbed)	For Problematic Soils¹ Suck (LRR I, J) Prairie Redox (LRR F, G, H) surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) seed Vertic Parent Material Shallow Dark Surface ain in Remarks) sydrophytic vegetation and wetland hydrology must be present,
0-8 8-11 11-20 NRCS Hydri	Hue_10YR Hue_10YR Hue_10YR ic Soil Field A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger 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	Color (Moist) 2/1 3/1 4/1 Indicators (check ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR F) cky Peat or Peat (LRR F) leyed Matrix	100 100 75 here if ind	Hue_10YR Hue_2.5Y S5 - Sandy R S6 - Stripped F1 - Loamy N F2 - Loamy O F3 - Depleted F6 - Redox D F7 - Depleted F8 - Redox D F16 - High Pl	5/8 5/3 not presen edox Matrix Mucky Miner Bleyed Matrix I Matrix eark Surface I Dark Surface epressions ains Depres	Mottle % 5 20 t):	ES Type C C C Hydric So	Location M M H H O C C C C C C C C C C C C C C C C C	Indicators of A9 - 1 cm MA16 - Coast S7 - Dark S7 - Dark S7 - Red F7 TF12 - Very Other (Explain of F18 - Reduction of F18 - Red F18 - Red F18 - Red F19 - Very Other (Explain of F19 - Very Other of F19 - Very Other (Explain of F19 - Very Other of F19 - Very Other (Explain of F19 - Very Other of F19 - Very Other (Explain of F19 - Very Other of F19 - Very Other of F19 - Very Other (Explain of F19 - Very Other of F1	For Problematic Soils¹ Suck (LRR I, J) Prairie Redox (LRR F, G, H) surface (LRR G) Plains Depressions (LRR H, outside MLRA 72, 73) seed Vertic Parent Material Shallow Dark Surface ain in Remarks) sydrophytic vegetation and wetland hydrology must be present,

WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: w-153n43w29-k1				
VEGETATIO	` ` '	re non-native	species.)						
Tree Stratum ((Plot size: 30 ft. radius) Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet				
1.	Fraxinus pennsylvanica	70	Y	FAC					
2.	Ulmus americana	15	N	FAC	Number of Dominant Species that are OBL, FACW, or FAC: 3 (A)				
3.	Populus tremuloides	5	N	FAC					
4.					Total Number of Dominant Species Across All Strata: 3 (B)				
5.									
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. 0 x 1 = 0				
	Total Cover =	90			FACW spp. $0 x 2 = 0$				
					FACW spp. 0				
	Stratum (Plot size: 15 ft. radius)	7-	V	E40	FACU spp. 0				
1.	Fraxinus pennsylvanica	75	Y	FAC	UPL spp0				
2.					T-4-1 475 (A) 505 (D)				
3.					Total 175 (A) 525 (B)				
4. 5.					Provolence Index – P/A – 2 000				
6.					Prevalence Index = B/A = 3.000				
7.									
8.					Hydrophytic Vegetation Indicators:				
9.					Rapid Test for Hydrophytic Vegetation				
10.					X Dominance Test is > 50%				
	Total Cover =	75			X Prevalence Index is ≤ 3.0 *				
			_		Morphological Adaptations (Explain) *				
Herb Stratum (Plot size: 5 ft. radius)				Problem Hydrophytic Vegetation (Explain) *				
1.	Fraxinus pennsylvanica	10	Υ	FAC					
2.					* Indicators of hydric soil and wetland hydrology must be				
3.					present, unless disturbed or problematic.				
4.					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.									
14.					And A Mark All Consideration of the control of the				
15.	T 1 1 0	40			Woody Vines - All woody vines, regardless of height.				
	Total Cover =	10							
M - 1 M - 0	(District on OO (see Fig.)								
vvoody vine St	ratum (Plot size: 30 ft. radius)								
2.									
3.					Hydrophytic Vegetation Present?				
5.					Trydrophytic vegetation resent:				
4.									
	Total Cover =	= 0							
Remarks: The wetland sample point canopy is dominated by green ash and ground cover is dominated by green ash seedlings.									
The medicine cample point camply to dominated by green act and greated cover to dominated by green dominated by green act of continues and greated by green act of continues and green act of continues act of continues and green act of continues act of continues and green act of continues and green act of continues and green act of continues act of continues act of continues and green act of continues act of continues and green act of continues act of continues act of continues and green ac									
Additional Remarks:									
/ dartional l	toman nor								