## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:										Date:	09/25/14						
Applicant:					Culanania	/ N / I D /	\	County:	Marshall								
Investigators Soil Unit:	ors: BEH/NTT 124A					•	A or LRR): I Classification:	MLRA 56	State:	MN							
Landform:	Talf			I c	cal Relief:		i Ciassilication.	-		Sample Point	u-154n45w2-d1						
	Slope (%): 0 - 2% Latitude: 48.18938317 Longitude: -96.40311915 Datum:																
. , ,	hydrologic co	nditions on the site typica							□ No	Section:							
Are Vegetation	on 🛭 Soil	□, or Hydrology □signi	ficantly	disturbed?		Are normal circumstances present?											
Are Vegetation ☐ Soil ☐, or Hydrology ☐aturally problematic? ☐ Yes ☐ No Range: Dir:																	
SUMMARY C																	
Hydrophytic Vegetation Present? Wetland Hydrology Present?				No No			Hydric Soils Present? No										
Remarks:			Is This Sampling Point Within A Wetland? No														
Remarks: Upland sample point in a quaking aspen forest, close to a wet forested depression.																	
HYDROLOG	Υ																
		icators (Check all that ap	ndy: Mir	nimum of or	ne nrimary	or two s	econdary requi	red)•									
Primary	•	icators (Check all that ap	ppiy, iviii	iiiiiuiii oi oi	le primary	OI TWO S	econdary requi	ieu).	Secondary:								
<u> </u>	<u> </u>	Vater	B11 - Salt	Crust				B6 - Surface Sc	oil Cracks								
□ A2 - High Water Table					B13 - Aqua						egetated Concave Surface						
	A3 - Saturatio B1 - Water Ma				C1 - Hydro C2 - Dry S					B10 - Drainage	Patterns thizospheres on Living Roots (tille						
	B2 - Sedimen							Roots (not till	le 🗆	C8 - Crayfish B							
	□ B3 - Drift Deposits □ C4 - Presence of Reduced Iron										Visible on Aerial Imagery						
	B4 - Algal Mat B5 - Iron Depo				C7 - Thin N Other (Exp		ace			D2 - Geomorph D5 - FAC-Neutr							
		n Visible on Aerial Imagery			Other (Exp	naii i)					/ed Hummocks (LRR F)						
□ B9 - Water-Stained Leaves																	
Field Observations:																	
Surface Wat		Yes	Depth:		_ (in.)			Wetland F	lydrology I	Present?	N						
			•		_ ` ` '		Water Table Present? Yes Depth: (In.)										
Saturation Present? Yes Depth: (in.)																	
<del></del>					<u> </u>												
	·	tream gauge, monitoring w	/ell, aeri	al photos, pr	evious insp	ections),	, if available:										
Describe Rec	·		/ell, aeri	al photos, pr	evious insp	ections),	, if available:										
Remarks:	·	tream gauge, monitoring w	/ell, aeri	al photos, pr	evious insp	pections),	, if available:										
Remarks:	No primary	tream gauge, monitoring w	/ell, aeria l indicat	al photos, pr tors were ol	evious insposerved.			ndicators.)									
Remarks:  SOILS Profile Descri	No primary	stream gauge, monitoring wor secondary hydrologica	vell, aeria	al photos, protors were of the other the individual of the individ	evious insposerved.	onfirm th	e absence of in										
Remarks:  SOILS Profile Descri	No primary	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=	vell, aeria	al photos, protors were of the other the individual of the individ	evious insposerved.	onfirm th	e absence of in ore Lining, M=Matr										
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=	vell, aeri	al photos, processions were of the independent the independent content the independent content in the independent	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	Touture		Damonto						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary iption (Descri	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)	/ell, aeria l indicat docum =Covered	al photos, protors were of the other the individual of the individ	evious insposerved.  icator or co	onfirm th	e absence of in ore Lining, M=Matr		Texture		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=	vell, aeri	al photos, processions were of the independent the independent content the independent content in the independent	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	Texture SCL		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary iption (Descri	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)	/ell, aeria l indicat docum =Covered	al photos, processions were of the independent the independent content the independent content in the independent	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	_		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary iption (Descri	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)	/ell, aeria l indicat docum =Covered	al photos, process of the second content the independent content conte	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	_		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary iption (Descri	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)	/ell, aeria l indicat docum =Covered	al photos, process of the second content the independent content conte	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	_		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer	No primary iption (Descri	or secondary hydrologica be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)	/ell, aeria l indicat docum =Covered	al photos, process of the second content the independent content conte	evious insposerved.  icator or co	onfirm th tion: PL=P Mottl	e absence of in ore Lining, M=Matr	ix)	_		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12	No primary iption (Descri	be to the depth needed to etion, RM=Reduced Matrix  Color (Moist)  2/1	/ell, aeris l indicat  docum Covered  % 100	al photos, protors were of the independent the independent content content the independent content content the independent content con	evious insposerved.  Icator or congrains; Loca  Moist)	onfirm th	e absence of in ore Lining, M=Matr	ix)	_		Remarks						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12	No primary iption (Descri	be to the depth needed to etion, RM=Reduced Matrix  Color (Moist)  2/1	/ell, aeris l indicat  docum Covered  % 100	al photos, process of the second content the independent content conte	evious insposerved.  Icator or congrains; Loca  Moist)	onfirm th	e absence of in Fore Lining, M=Matr es Type	ix)	SCL	for Problematic							
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12	No primary iption (Descri	be to the depth needed to etion, RM=Reduced Matrix  Color (Moist)  2/1	/ell, aeria l indicat codocum =Covered  % 100 re if ind	al photos, protors were of the independent the independent for the	evious insposerved.  Cator or configurations; Local  Moist)  not presented.	onfirm th	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M	luck (LRR I, J)	Soils <sup>1</sup>						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	No primary  iption (Descrintration, D=Deple  Hue_10YR  ric Soil Field  A1- Histosol A2 - Histic Ep	be to the depth needed to etion, RM=Reduced Matrix.  Color (Moist)  2/1  Indicators (check he ipedon	/ell, aeria l indicat c docum Covered % 100 re if ind	al photos, protors were of the individual of the	evious insposerved.  Icator or configuration of configura	onfirm th tion: PL=P Mottl %	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast	luck (LRR I, J) Prairie Redox (L	Soils <sup>1</sup>						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	No primary  iption (Descrintration, D=Depleted    Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His	be to the depth needed to etion, RM=Reduced Matrix.  Color (Moist)  2/1  Indicators (check he ipedon etic	/ell, aeria l indicat  docum Covered  % 100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configurations; Local  Moist)  Moist)  not presented and the presented a	mottl  Mottl  // // // // // // // // // // // // /	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si	luck (LRR I, J) Prairie Redox (L urface (LRR G)	<u>Soils<sup>1</sup></u> .RR F, G, H)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger	be to the depth needed to the total Matrix  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide	/ell, aeria l indicat codocum covered % 100 re if ind	cors were of the index of the i	mot presented Matrix Mucky Miner Gleyed Matrix	mottl  Mottl  // // // // // // // // // // // // /	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F	luck (LRR I, J) Prairie Redox (L urface (LRR G) Plains Depression	Soils <sup>1</sup>						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified	be to the depth needed to etion, RM=Reduced Matrix.  Color (Moist)  2/1  Indicators (check he ipedon etic	/ell, aeria l indicat  docum Covered  % 100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configurations; Local  Moist)  Moist)  Cadox  Matrix Mucky Miner Gleyed Matrix Mucky Matrix Mucky Matrix	mottl  Mottl  %  tion: PL=P	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduce	luck (LRR I, J) Prairie Redox (L urface (LRR G) Plains Depression	<u>Soils<sup>1</sup></u> .RR F, G, H)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete	be to the depth needed to etion, RM=Reduced Matrix.  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface	/ell, aeria l indicat codocum covered % 100 re if ind	cors were of the individual control of the i	mot present Matrix Mucky Miner Gleyed Matrix Dark Surfaced	mottl  Mottl  %  t):	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression ced Vertic Sarent Material	Soils <sup>1</sup> LRR F, G, H)  OS (LRR H, outside MLRA 72, 73)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete A12 - Thick D	be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configuration (Cator)  Moist)  Moist)  Moist)  Redox Mucky Miner Gleyed Matrix Mucky Miner Gleyed Matrix Dark Surface Depressions	mottl  Mottl  %  t):	es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox (Lurface (LRR G) Idains Depression Ced Vertic	Soils <sup>1</sup> LRR F, G, H)  OS (LRR H, outside MLRA 72, 73)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete A12 - Thick D S1 - Sandy Mi	be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ark Surface ucky Mineral	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configuration (Cator)  Moist)  Moist)  Moist)  Redox Mucky Miner Gleyed Matrix Mucky Miner Gleyed Matrix Dark Surface Depressions	mottl  Mottl  %  t):	e absence of in Fore Lining, M=Matr es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduc TF2 - Red P TF12 - Very	luck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression ced Vertic Sarent Material	Soils <sup>1</sup> LRR F, G, H)  OS (LRR H, outside MLRA 72, 73)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete A12 - Thick D S1 - Sandy Mo S2 - 2.5 cm M S3 - 5 cm Muc	be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G, Hocky Peat or Peat (LRR F)	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configuration (Cator)  Moist)  Moist)  Moist)  Redox Mucky Miner Gleyed Matrix Mucky Miner Gleyed Matrix Dark Surface Depressions	mottl  Mottl  %  t):	es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark St F16 - High F F18 - Reduc TF2 - Red P TF12 - Very Other (Expla	luck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression Parent Material Shallow Dark Stain in Remarks)	Soils <sup>1</sup> LRR F, G, H)  OS (LRR H, outside MLRA 72, 73)						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Mue A11 - Deplete A12 - Thick D S1 - Sandy Me S2 - 2.5 cm M	be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G, Hocky Peat or Peat (LRR F)	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	evious insposerved.  Cator or configuration (Cator)  Moist)  Moist)  Moist)  Redox Mucky Miner Gleyed Matrix Mucky Miner Gleyed Matrix Dark Surface Depressions	mottl  Mottl  %  t):	es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	luck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression Parent Material Shallow Dark Stain in Remarks)	Soils <sup>1</sup> LRR F, G, H)  PS (LRR H, outside MLRA 72, 73)  Urface						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete A12 - Thick D S1 - Sandy Mi S2 - 2.5 cm M S3 - 5 cm Muc S4 - Sandy Gi	be to the depth needed to etion, RM=Reduced Matrix.  Color (Moist)  2/1  Indicators (check he ipedon stic n Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Peat or Peat (LRR G, Hocky Peat or Peat (LRR F) leyed Matrix	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	mot present Matrix Mucky Miner Gleyed Matrix Dark Surfaced	mottl  Mottl  %  t):	es Type	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	Juck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression Parent Material Shallow Dark Stain in Remarks)	Soils <sup>1</sup> LRR F, G, H)  PS (LRR H, outside MLRA 72, 73)  Urface						
Remarks:  SOILS Profile Descri (Type: C=Concer  Depth (In.) 0-12  NRCS Hydr	Hue_10YR  Hue_10YR  A1- Histosol A2 - Histic Ep A3 - Black His A4 - Hydroger A5 - Stratified A9 - 1 cm Muc A11 - Deplete A12 - Thick D S1 - Sandy Mi S2 - 2.5 cm M S3 - 5 cm Muc S4 - Sandy Gi	be to the depth needed to etion, RM=Reduced Matrix, CS=  Matrix  Color (Moist)  2/1  Indicators (check he ipedon stic in Sulfide Layers (LRR F) ck (LRR FGH) d Below Dark Surface ark Surface ark Surface ucky Mineral lucky Peat or Peat (LRR G, Hocky Peat or Peat (LRR F)	/ell, aeria l indicat  o docum =Covered  100  re if ind	cors were of the index of the i	mot present Matrix Mucky Miner Gleyed Matrix Dark Surfaced	mottl  Mottl  %  t):	es Type  LRA 72, 73 of LRF	Location	Indicators f A9 - 1 cm M A16 - Coast S7 - Dark Si F16 - High F F18 - Reduct TF2 - Red P TF12 - Very Other (Explain	Juck (LRR I, J) Prairie Redox (Lurface (LRR G) Plains Depression Parent Material Shallow Dark Stain in Remarks)	Soils <sup>1</sup> LRR F, G, H)  PS (LRR H, outside MLRA 72, 73)  Urface						

## WETLAND DETERMINATION DATA FORM Great Plains Region

Project/Site:	L3R				Sample Point: u-154n45w2-d1					
VEGETATIO	` ` '	re non-native	species.)							
Tree Stratum (	(Plot size: 30 ft. radius)  Species Name	% Cover	Dominant	Ind.Status	Dominance Test Worksheet					
1.	Populus tremuloides	<u> </u>	Y	FAC	Dominance rest worksneet					
2.	Acer negundo	15	N	FAC	Number of Dominant Species that are OBL, FACW, or FAC: 1 (A)					
3.	, neganac	10		TAO	Transor of Bornmant openies that are GB2, 17(GVV, GF17(G).					
4.					Total Number of Dominant Species Across All Strata: 5 (B)					
5.					(D)					
6.					Percent of Dominant Species That Are OBL, FACW, or FAC: 20.0% (A/B)					
7.										
8.					Prevalence Index Worksheet					
9.					Total % Cover of: Multiply by:					
10.					$\int_{0}^{\infty} ORl snn \qquad 0 \qquad x = 0$					
	Total Cove				FACW spp. $2   x 2 = 4$					
					FACW spp. 2					
Sapling/Shrub	Stratum (Plot size: 15 ft. radius)				FACU spp. $58$ $x 4 = 232$					
1.	Prunus virginiana	25	Υ	FACU	UPL spp15					
2.	Amelanchier humilis	15	Y	NI						
3.	Viburnum lentago	10	N	FACU	Total 166 (A) 584 (B)					
4.	Toxicodendron rydbergii	5	N	FACU						
5.	Rhamnus cathartica	5	N	FACU	Prevalence Index = B/A = <u>3.518</u>					
6.										
7.					Liverantia Vagatatian Indiastara.					
8.					Hydrophytic Vegetation Indicators:					
9. 10.					Rapid Test for Hydrophytic Vegetation  Dominance Test is > 50%					
10.	_l Total Cover =	60	60		Prevalence Index is ≤ 3.0 *					
	Total Cover =	00	_							
Llamb Otrations /	Diet sies. 5 ft. realises				Morphological Adaptations (Explain) *					
1.	Plot size: 5 ft. radius)		Υ	FACU	Problem Hydrophytic Vegetation (Explain) *					
2.	Rubus idaeus	5	<u>т</u> Ү	FACU	* Indicators of hydric soil and wetland hydrology must be					
3.	Maianthemum canadense	5 1	<u></u> N	FACW	present, unless disturbed or problematic.					
3. 4.	Viola renifolia Symphyotrichum lateriflorum	1	N	FACW	Definitions of Vegetation Strata:					
5.	Galium triflorum	1	N	FACU	Definitions of Vegetation Strata.					
6	Phryma leptostachya	<u>'</u> 1	N	FACU	Tree - Woody plants 3 in. (7.6cm) or more in diameter at breast					
7.	Sanicula marilandica	1	N	FACU	height (DBH), regardless of height.					
8.		<u> </u>		17100						
9.					Sapling/Shrub - Woody plants less than 3 in. DBH, regardless of height.					
10.										
11.										
12.				-	<b>Herb</b> - All herbaceous (non-woody) plants, regardless of size.					
13.				-						
14.										
15.					Woody Vines - All woody vines, regardless of height.					
	Total Cover =	15								
Woody Vine St	ratum (Plot size: 30 ft. radius)									
1.	Vitis riparia		1 N	FAC						
2.										
3.					Hydrophytic Vegetation Present? N					
5.										
4.										
	Total Cover =									
Remarks: The canopy is predominantly quaking aspen with scattered boxelder. Shrub component is primarily chokecherry and serviceberry. Herbaceous cover is sparse with wild red raspberry and Canada mayflower being the most prevalent.										
sparse with whatea rasportly and Canada mayhower being the most prevalent.										
Additional Remarks:										
1										