









APPENDIX C

WETLAND DETERMINATION DATA FORMS

MAPBOOK

WETLAND DETERMINATION SAMPLING LOCATIONS









FIGURE 2: WETLAND DETERMINATION DATA FORMS SAMPLING LOCATIONS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION



















WETLAND DETERMINATION DATA FORMS

Project/Site: Lake Ralph Hall	City/County: La	adonia/Fannin	_ Sampling Date: 6/2/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: WP2
Investigator(s): Jason Voight, Andrew Sample	Section, Towns	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (co	oncave, convex, none): <u>Concave</u>	e Slope (%): 0-1%
Subregion (LRR): Southwest Prairies	33.45226	Long: <u>-96.01460</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classi	fication: none
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	_ No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed?	Are "Normal Circumstances'	' present? Yes X No
Are Vegetation, Soil X, or Hydrology natural	lly problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	wing sampling p	point locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	Is the S	ampled Area a Wetland? Yes	No <u>X</u>

Remarks:

Heavy storms the previous day; wooded area near North Sulphur River channel

700 cc th	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 700 sq ft)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Fraxinus pennsylvanica		Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	25	Yes	FAC	(excluding FAC-). (A)
3. Celtis laevigata	45	Yes	FAC	Total Number of Dominant
4. Malcura pomifera	5	No	FACU	Species Across All Strata: 5 (B)
700 cg ft	95	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 100 Sq II.)	F	Nie	540	That Are OBL, FACW, or FAC: 80 (A/B)
1. Fraxinus pennsylvanica	- 5	<u>N0</u>	FAC	Prevalence Index worksheet:
2. Celtis laevigata	10	No	FAC	Tetal % Cover of: Multiply by:
3. Ulmus crassifolia	5	No	FACU	
4. Juniperus virginiana	3	No	UPL	OBL species X 1 =
5. Symphoricarpos orbiculatus	5	No	FACU	FACW species x 2 =
	28	= Total Co	ver	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)				FACU species x 4 =
1. Elymus virginicus	50	Yes	FAC	UPL species x 5 =
2. Toxicodendron radicans	15	No	FACU	Column Totals: (A) (B)
3. Torillis arvensis	10	No	UPL	
4. Carex planostachys	25	Yes	UPL	Prevalence Index = B/A =
5.				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
2 2				3 - Prevalence Index is $\leq 3.0^1$
9				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
150	100	= Total Co	ver	
Woody Vine Stratum (Plot size: 450 sq ft)	_			Indicators of hydric soil and wetland hydrology must
1. I oxicodendron radicans	5	No	FACU	be present, unless disturbed of problematic.
2. Smilax sp.	2	No	FAC	Hydrophytic
% Bare Ground in Herb Stratum 0	7	= Total Cov	ver	Vegetation Present? Yes X No
Remarks:				1

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Profile Des	cription: (Describe	to the depth	needed to docur	ment the i	ndicator	or confirm	the absence	of indicators.)
Depth	Matrix		Redo	x Features	<u>s</u> 1	. 2	-	- .
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type'	Loc	Texture	Remarks
0-18	10 YR 3/2	100					Clay	
		<u> </u>						
1							21 -	atter DL Deve Lister M Metric
Type: C=C	oncentration, D=Dep	eletion, RM=Re	educed Matrix, C	S=Covered	d or Coate	d Sand Gr	ains. ⁻ Loo	cation: PL=Pore Lining, M=Matrix.
	indicators: (Applic							
	(A1) ninodon (A2)			Jieyed Ma	1trix (54)			Muck (A9) (LRR I, J) Droirio Dodox (A16) (LPB E C H)
	$p_{1}p_{2}p_{3}p_{4}p_{4}p_{4}p_{4}p_{4}p_{4}p_{4}p_{4$			A Matrix (S	() (6)			Surface (S7) (I RR G)
	en Sulfide (A4)			Mucky Mir	neral (F1)			Plains Depressions (E16)
	d Lavers (A5) (LRR I	=)		Gleved Ma	atrix (F2)		(LF	RR H outside of MLRA 72 & 73)
1 cm M	uck (A9) (LRR F, G, I	, H)	Deplete	d Matrix (I	F3)		Reduc	ed Vertic (F18)
Deplete	d Below Dark Surfac	e (A11)	Redox I	Dark Surfa	ce (F6)		Red P	arent Material (TF2)
Thick D	ark Surface (A12)		Deplete	d Dark Su	rface (F7)		Very S	Shallow Dark Surface (TF12)
Sandy N	/lucky Mineral (S1)			Depressio	ns (F8)		Other	(Explain in Remarks)
	Mucky Peat or Peat (S2) (LRR G, I	H) L_ High Pla	ains Depre	essions (F	16)	Indicators	of hydrophytic vegetation and
5 cm Mi	ucky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 & 7	73 of LRR	H)	wetlan	d hydrology must be present,
Postriotivo	l aver (if present);						uniess	disturbed of problematic.
Turner	Layer (il present).							
Depth (in	aboo);		_				Uvdria Cail	Dresout? Yes No X
	ches).							
Remarks:								
No redo	v foaturos: Tir	n clav o	ccasionally	floode	d is na	tionally	listed h	dric soil: naturally dark soil
NO IEUO	k leatures, Th	in ciay, o	ccasionally	nooue		luonany	, instearing	And son, naturally dark son
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary Indi	cators (minimum of o	ne required; c	check all that appl	V)			Seconda	ary Indicators (minimum of two required)
	Water (A1)		Salt Crust	(B11)				face Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic In	vertebrate	s (B13)			Inselv Vegetated Concave Surface (B8)
Saturati	on (A3)			Sulfide Od	dor (C1)			inage Patterns (B10)
Water N	larks (B1)		Dry-Seaso	on Water T	able (C2)			dized Rhizospheres on Living Roots (C3)
□ _{Sedime}	nt Deposits (B2)			Rhizosphe	res on Livi	na Roots ((W	vhere tilled)
Drift De	posits (B3)		(where	not tilled)		5		vfish Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4)	Satu	uration Visible on Aerial Imagery (C9)
	oosits (B5)		Thin Muck	Surface (C7)	,	🔲 Geo	omorphic Position (D2)
Inundati	on Visible on Aerial I	magery (B7)	Other (Exp	olain in Re	marks)			C-Neutral Test (D5)
Water-S	stained Leaves (B9)	0, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1, 1,	、		,		E Fros	st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	er Present? Y	es No	X Depth (in	ches):				
Water Table	Present? Y	es No	X Depth (in	ches):		-		
Saturation P	resent? Y	es No	X Depth (in	ches):		Wet	and Hydrolog	v Present? Yes No X
(includes ca	pillary fringe)		20pt. (iii			_		,
Describe Re	corded Data (stream	aauge, monit	oring well, aerial	photos, pr	evious ins	pections).	if available:	







Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fann	in	Sampling Date: 5/30/17
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP3
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range	:	
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, con	vex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies Lat: 33	.45907 Lo	ong: <u>-95.89972</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	ation: R4SBC
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Nor	mal Circumstances" p	present? Yes X No
Are Vegetation, Soil X, or Hydrology naturally pr	oblematic? (If neede	ed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loca	ations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes X No Yes X No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:		-		

Forested wetland, part of the remnant North Sulphur River channel; not hyraulically or hydrologically connected to any stream channel

700	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Fraxinus pennsylvanica	90	Yes	FAC	That Are OBL, FACW, or FAC
2. Populus deltoides	5	No	FAC	(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: 1 (B)
	95	= Total Cov	rer	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Fraxinus pennsylvanica	5	No	FAC	
2. Celtis laevigata	2	No	FAC	Prevalence Index worksheet:
3. Carya ovata	1	No	FACU	Total % Cover of:Multiply by:
4.				OBL species x 1 =
5			·	FACW species x 2 =
	8	- Total Car		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)		= 101a1 000	ei	FACU species x 4 =
1. Lolium multiflorum	5	No	UPL	UPL species x 5 =
2 Ranunculus hispidus	1	No	FACW	Column Totals: (A) (B)
3 Torillis arvensis	1	No	UPL	
4. Ambrosia trifida	1	No	FAC	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
8				2 - Dominance Test is >50%
/			<u> </u>	3 - Prevalence Index is ≤3.0 ¹
8			<u> </u>	4 - Morphological Adaptations ¹ (Provide supporting
9			<u> </u>	data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft)	0	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
(1 101 3126)				be present, unless disturbed or problematic.
1			·	
2	0			Hydrophytic Vegetation
% Bare Ground in Herb Stratum ⁹²	<u> </u>		er	Present? Yes X No
Remarks:				1

inches) Color (moist) % Type: Loc" Type: Clay 2-18 10 YR 3/1 90 10 YR 4/6 10 C M Clay Procession Status 10 YR 4/6 10 C M Clay Procession Status St	Depth	Matrix		Re	dox Feature	es			
2-18 10 YR 3/1 90 10 YR 4/6 10 C M Clay 2-18 10 YR 3/1 90 10 YR 4/6 10 C M Clay 2-18 10 YR 3/1 90 10 YR 4/6 10 C M Clay 2-18 10 YR 3/1 90 10 YR 4/6 10 C M Clay 2-18 10 YR 3/1 10 YR 4/6 10 C M Clay Image: Clay	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
Pyre: C-Concentration. D-Depletion. RM-Reduced Matrix. CS-Covered or Coated Sand Grains. ************************************	0-18	10 YR 3/1	90	10 YR 4/6	10	С	Μ	Clay	
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix, Vieta Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix, Vieta Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix, Vieta Concentration, Vieta Concontration, Vieta Concentration, Vieta Concentration, Vie									
Type:									
Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ -Location: PL=Pore Lining, M=Matrix, Virte Solls ¹ : Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ¹ -Location: PL=Pore Lining, M=Matrix, Virte Solls ² : Histosel (A1) Black Husic (A3) Indicators for Problematic Hydric Solls ² : Histosel (A1) Black Husic (A3) Indicators for Problematic Hydric Solls ² : Hydrogen Sulfide (A4) Dopheted Matrix (F3) Dopheted Matrix (F3) Depleted Below Dark Surface (A1) Depleted Matrix (F3) Indicators (Hydrophytic vegetation and wetland hydrology must be present, with Plan Plan Popersions (F16) S cm Mucky Mear I Peat (S2) (LRR 6, H) Depleted Delox Dark Surface (F12) Other (Explain In Remarks) 2 cm Mucky Peat or Peat (S2) (LRR 7) High Plains Depressions (F16) Hydric Soil Present? Yes X No S cm Mucky Peat or Peat (S2) (LRR 6, H) High Plains Depressions (F16) Hydric Soil Present? Yes X No S cm Mucky Peat or Peat (S2) (LRR 6, H) Hydric Soil Present? Yes X No Indicators (minimum of we required thigh Plains Depressions (F16) S cm Mucky Peat or Peat (S3) (LRR 7) Hydric Soil Present? Yes X No Depth (inches): Indicators (minimum of we required thigh Plains Depressions (F16)		<u></u>					·	·	
Type:		<u></u>					·	·	
Type: C=Concentration. D=Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining. M=Matrix. Type: C=Concentration. D=Depletion. RM=Reduced Matrix. (CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining. M=Matrix. Histosol (A1) Sandy Gleyed Matrix (Si) Indicators for Problematic Hydric Solis? Histosol (A1) Sandy Redox (S5) Indicators for Problematic Hydric Solis? Black Histo (A3) Dary Gleyed Matrix (Si) Indicators for Problematic Hydric Solis? Stratiged Layers (A5) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Stratified Layers (A5) (LRR F, G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) Stratified Layers (A5) (LRR F, G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) Stratified Layers (A5) (LRR F, G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) Stratified Layers (A5) (LRR F, G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) Stratified Layers (B10) Mucky Peat or Peat (S2) (LRR F, G, H) Reduce Persensions (F16) Stratified Layers (If present): True (If present): True (If present): No Type:								<u> </u>	
Type: C-Concentration. D-Depletion. RM-Reduced Matrix. CS-Covered or Costed Sand Grains. *Location: PL=Pore Lining. M-Matrix. hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histic Epipedon (A2) Sandy Redox (S5) Indicators for Problematic Hydric Soils*: Black Histic (A3) Sindy Redox (S5) Indicators for Sind (Redox (S5) Hydrogo Suifide (A4) Sandy Redox (S5) Indicators (S7) (LRR 6) Depleted Dark Surface (S1) Depleted Dark Surface (S7) (LR R 6) Depleted Dark Surface (S1) Depleted Dark Surface (F7) Redox Dark Surface (F7) Sandy Mucky Merai (S1) Redox Dark Surface (F7) Redox Dark Surface (F7) Sandy Mucky Merai (S1) Medox Depleted Dark Surface (F7) Indicators of Hydrolopyhic vegetation and welland hydrolopyhic vegetation and welland hydrology much be present, unless disturbed or problematic. Type: Depleted Dark Surface (F7) Indicators of Hydrology hic vegetation and welland hydrology much be present, unless disturbed or problematic. Type: Deptity fielder (H7) Indicators of Mydrology hydrology hydro							- <u> </u>		
Type: C-Concentration. PL-Pore Lining. M-Matrix. Type: C-Concentration: PL-Pore Lining. M-Matrix. Yife: Soil Indicators: (Applicable to all LRRs. Immediators for Problematic Hydric Soils?: Histosol (A1) Sandy Redox (S5) Coast Prain Redox (A16) (LRR 6, G, H) Coast Prain Redox (A16) (LRR 6, G, H) Stratified Layers (A5) (LRF F) Learny Glogyed Matrix (S6) High Plains Depressions (F16) LRR H outside of MLRA 72 & 73 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (S7) Redux QMatrix (S1) Learny Glogyed Matrix (S1) Redux QMatrix (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) WIRA 72 & 73 of LRR H) Werts Phalow Dark Surface (T12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR F) High Plains Depressions (F16) Werts Phalow Dark Surface (T12) 2.5 cm Mucky Peat or Peat (S2) (LRR F) High Plains Depressions (F16) Wertand Mydrology matrix Wertand Mydrology matrix 2.5 cm Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F16) Wertand Mydrology matrix Wertand Mydrology matrix 2.5 cm Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F16) Wertand Mydrology matrix Wertand Mydrology matrix Wertand Myd									
Type: Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Type: Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Type: Concentration, D-Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Histosol (A1) Biack Histic (A3) Sandy Gregod Matrix (S4) Coase Problematic Hydric Solls?: Hydrogon Suffice (A4) Damy Glegod Matrix (S5) Dark Surface (A71) Damy Glegod Matrix (F2) Depleted Bolow Dark Surface (A11) Depleted Matrix (F3) Red acer (F1) Depleted Matrix (F2) Stripped Matrix (F3) Depleted Matrix (F3) Red parent Material (TF2) Very Shallow Dark Surface (F7) Stripped Matrix (F3) Depleted Matrix (F3) Red parent Material (TF2) Very Shallow Dark Surface (F7) Stripped Matrix (F3) Depleted Matrix (F3) Red parent Material (TF2) Very Shallow Dark Surface (F7) Stripped Matrix (F3) Depleted Matrix (F3) Red parent Material (TF2) Very Shallow Dark Surface (F7) Stripped Matrix (F4) Depleted Matrix (F3) Red parent Material (TF2) Very Shallow Dark Surface (F7) Stripped Matrix (F3) Matrix F1									
Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Indicators (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Indicators (A) Sandy Gleyed Matrix (S4) Black Histic (A3) Sandy Redxo (S5) Black Histic (A4) Loamy Mucky Mineral (F1) Depleted Bow Dark Surface (A1) Depleted Matrix (F2) Tim Muck (A9) (LRR F, G, H) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Red Patrent Matrial (TF2) Sandy Mucky Mineral (S1) Red patrent Matrial (TF2) 2.5 cm Mucky Peat or Peat (S2) (LRR F, High Plains Depressions (F16) Nuck (Patrent Matrial (TF2) Sandy Mucky Mineral (S1) Red Patrent Matrial (TF2) 2.5 cm Mucky Peat or Peat (S2) (LRR F, M) High Plains Depressions (F16) Type: Reduced Vertic (F18) Depth def Dark Surface (F7) Were (If present): Type: High Plains Depressions (F16) 2.5 cm Mucky Peat or Peat (S2) (LRR F) High Plains Depressions (F16) Ympe: High Varians Depleted Dark Surface (F7) Bept (Inches): High Varians Depleted Dark Surface (F7) Surface Soil Cracks (B6) Interamarks: Cted Art Warder Sont Ma	Type: C-C	Concentration D-De	nletion R	M-Reduced Matrix	CS-Covere		ed Sand G	rains ² l ocati	on: PI –Pore Lining M–Matrix
Histosol (A1) Sandy Gleyed Matrix (S4) I cm Muck (A9) (LRR I, J) Histosol (A1) Sandy Redox (S5) Coast Praine Redox (A16) (LRR F, G, H) Black Histo (A3) Stripped Matrix (S1) Coast Praine Redox (A16) (LRR F, G, H) Straffed Layers (A5) (LRR F, G, H) Depleted Matrix (S1) Redox Dark Surface (A11) Thick Dark Surface (A12) Depleted Matrix (S1) Redox Dark Surface (F6) Sord Mucky Mineral (S1) Depleted Dark Surface (F7) Redox Dark Surface (TF12) Sord Mucky Peat or Peat (S2) (LRR F, H) High Plains Depressions (F16) Niclacions of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Stripped Matrix (S1) Sord Mucky Mineral (T1) Redox Dark Surface (TF12) No	lydric Soil	Indicators: (Appli	cable to a	all LRRs, unless ot	nerwise no	ted.)		Indicators for	r Problematic Hydric Soils ³ :
Histic Epipedon (A2) Biack Histic (A3) Coast Prairie Redox (A16) (LRR F, G, H) Biack Histic (A3) Simped Matrix (S6) Biack Histic (A3) Straffied Layers (A5) (LRR F) Loamy Gleyed Matrix (S7) High Plains Depressions (F16) 1 orn Muck (A9) (LRR F, G, H) Depleted Matrix (S7) Depleted Matrix (S7) 2 orn Mucky Mineral (S1) Z Redox Dark Surface (F6) Other (Explain in Remarks) 2 orn Mucky Peat or Peat (S2) (LRR G, H) Depleted Dark Surface (F7) Red Repressions (F16) 3 con Mucky Peat or Peat (S2) (LRR F, H) High Plains Depressions (F16) Indicators of hydrophytic vegetation and wetland hydrophytic vegetation and wetland hydrophytic vegetation and wetland hydrophytic so it present; unless disturbed or problematic. Type:	J Histoso	(A1)		Sand	v Gleved M	, atrix (S4)		1 cm Muc	ck (A9) (LRR I. J)
Black Histic (A3) Black Histic (A3) Black Histic (A3) Black Histic (A3) Black Histic (A3) Black Histic (A3) Black Histic (A3) Black Histic (A3) Stratified Layers (A5) (LRR F) Depleted Bdark (F2) Black Histic (A3) Black Histic (A3) Stratified Layers (A5) (LRR F) Depleted Dark Surface (F6) Bedox Dark Surface (A11) Bedox Dark Surface (A12) Storm Mucky Peat or Peat (S2) (LRR G, H) Depleted Dark Surface (F7) Peadox Depressions (F6) Indicators of hydrophytic vegatation and wetland hydrology must be present. unless disturbed or problematic. estrictive Layer (If present):	Histic E	pipedon (A2)		Sand	y Redox (S	5)		Coast Pra	airie Redox (A16) (LRR F, G, H)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Palains Depressions (F16) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (F2) Reduced Vertic (F18) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Reduced Vertic (F18) Startified Layers (A5) (LRR F, G, H) Depleted Dark Surface (F7) Very Shallow Dark Surface (T12) Startified Layer (If present): Reduced Vertic (F18) Reduced Vertic (F18) Startified Layer (If present): (MLRA 72 & 73 of LRR H) With Minoral (F1) Type:	Black H	listic (A3)		🛄 Stripp	oed Matrix (S6)		Dark Surf	ace (S7) (LRR G)
Statilized Layers (AS) (LRR F) Loamy Cleyed Matrix (F2) (LRR H outside of MLRA 72 & 73) I orm Muck (AG) (LRR F, G, H) Depleted Matrix (F2) Reduced Vertic (F18) Sandy Mucky (Nineral (S1) Depleted Matrix (F2) Reduced Vertic (F18) S com Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. strictive Layer (if present): Type:	Hydrog	en Sulfide (A4)		Loam	y Mucky M	ineral (F1)		🔲 High Plair	ns Depressions (F16)
I om Muck (A9) (LRR F, G, H) Depleted bow Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) Sendy Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) Deptet (Explain in Remarks) ***********************************	Stratifie	ed Layers (A5) (LRR	. F)	Loam	y Gleyed N	latrix (F2)		(LRR	H outside of MLRA 72 & 73)
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Thick Dark Surface (A12) Depleted Dark Surface (F7) Other (Explain in Remarks) Sandy Mucky Mineral (S1) Match Depressions (F8) Other (Explain in Remarks) Som Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. estrictive Layer (if present): Type: Hydric Soil Present? Yes X No pepth (inches): Depth (inches): Hydric Soil Present? Yes X No edox features observed; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark sc //DROLOGY //Entand Hydrology Indicators: immary Indicators (minimum of one required: check all that apply) Secondary Indicators (minimum of two required) Surface Name Salt Crust (B11) Surface Roil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Dry-Season Water Table (C2) Sturtation (A3) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) // Iton Deposits (B3) Presence of Reduced Iron (C4) Saturation (Visible on Aerial Imagery (C9) // Iton Deposits (B5) Dith Mck Surface (C7) Geomorphic Positin (D2) // Iton Deposits (B5) No Depth (inches): No		ed Below Dark Surfa	ce (A11)	Redo	x Dark Surf	ace (F6)		Red Pare	nt Material (TF2)
Satar Saturation	Thick D	ark Surface (A12)			eted Dark S	urface (F7)	Very Sha	llow Dark Surface (TF12)
2.5 cm/lucky Peat or Peat (S2) (LRR F) (MLRA 72 & 73 of LRR H) indicators of injordprive vegetation and working yrms to present, unless disturbed or problematic. estrictive Layer (if present):		Mucky Mineral (S1)	(S2) /I DI		X Depressio	DNS (F8)	16)	³ Indicators of	plain in Remarks)
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Inundation Visible on Aerial Imagery (B7) U Other (Explain in Remarks) Water-Stained Leaves (B9) ield Observations: urface Water Present? Yes No X Depth (inches): /ater Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X No wetland Hydrology Present? Yes No wetland Hydrology Present? Yes X No wetland Hydrology Present? Yes X No wetland Hydrology Present?	Type: Depth (ir emarks: edox fe // CROLC // CROCC // CROCCC // CROCC // CROCC // CROCC // CROCC // CROCCC // CROCC // CROCC // CROCC // CROCC // CROCC // CROCC // CROCC // CROCCC // CROCC // CROCC // CROCCC // CROCCC // CROCCCCCCC // CROCCC // CROCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC	Layer (if present): aches): Patures observed DGY /drology Indicators icators (minimum of e Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	/ed; Tin s: one requi	In clay, occasi	onally flo oply) ist (B11) Invertebrate en Sulfide C ason Water d Rhizospho e not tilled ce of Reduc	es (B13) Dodor (C1) Table (C2) eres on Liv) eed Iron (C	s natior	Hydric Soil Pro- nally listed hy Secondary Surface Sparse Drainae Crayfis Saturat	esent? Yes X No /dric soil; naturally dark so /dric soil; naturally dark so ////////////////////////////////////
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Surface Water Present? Yes No _X Depth (inches): Vater Table Present? Yes No _X Depth (inches): Vater Table Present? Yes No _X Depth (inches): vaturation Present? Yes No _X Depth (inches): ncludes capillary fringe) Wetland Hydrology Present? Yes No vescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Type: Depth (ir cemarks: cedox fe cedox fe	Layer (if present): aches): Patures observ OGY /drology Indicators icators (minimum of a Water (A1) ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) icion Visible on Aeria Stained Leaves (B9)	/ed; Tin s: one requi	n clay, occasi	onally flo oply) Ist (B11) Invertebrate ason Water d Rhizosphe e not tilled as of Reduc ack Surface Explain in R	es (B13) Ddor (C1) Table (C2) eres on Liv) red Iron (C (C7) emarks)	s natior	Hydric Soil Pro	esent? Yes X No /dric soil; naturally dark so Indicators (minimum of two required) e Soil Cracks (B6) ely Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) ere tilled) th Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) feave Hummocks (D7) (LRR F)
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rescribe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	Type: Depth (ir emarks: edox fe /DROLC /etland Hy rimary Ind J Surface High W Saturat Water N Sedime J Drift De Algal M Iron De Inundat Water S ield Obse urface Wa /ater Table	Layer (if present): Anches): Patures observed DGY /drology Indicators icators (minimum of a Water (A1) a ter Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) posits (B5) ion Visible on Aeria Stained Leaves (B9) rvations: ter Present? a Present?	/ed; Tin s: one requi	In clay, occasi	onally flo oply) ist (B11) Invertebrate en Sulfide C ason Water d Rhizosphe e not tilled e of Reduc ick Surface Explain in R (inches):	es (B13) Dodor (C1) Table (C2) eres on Liv) eed Iron (C (C7) emarks)	s nation	Hydric Soil Pro	esent? Yes X No /dric soil; naturally dark so Indicators (minimum of two required) e Soil Cracks (B6) ely Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3 ere tilled) th Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F)
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Project/Site: Lake Ralph Hall Supplemental JD	City/County:	Ladonia/Fannin	Sampling Date: 5/30/17
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP4
Investigator(s): <u>Jason Voight</u> , Andrew Sample	Section, Tow	nship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, convex, none): <u>Co</u>	ncave Slope (%): 0-1%
Subregion (LRR): Southwest Prairies	33.45900	Long: <u>-95.89973</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI c	lassification: none
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, expla	iin in Remarks.)
Are Vegetation, Soil, or Hydrology signific	antly disturbed?	Are "Normal Circumsta	nces" present? Yes X No
Are Vegetation, Soil X, or Hydrology natural	ly problematic?	(If needed, explain any	answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling	point locations, trans	sects, important features, etc.
Hydrophytic Vegetation Present? Yes No _X Hydric Soil Present? Yes No _X Wetland Hydrology Present? Yes No _X	Is the within	Sampled Area	s NoX
Remarks:			

Outside of forested wetland from sampling point WP3

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	35	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus americana	15	No	FAC	(excluding FAC-): 1 (A)
3	_			Total Number of Dominant
4.				Species Across All Strata: 2 (B)
	50	= Total Cov	ver	Dereent of Deminent Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL. FACW. or FAC: ⁵⁰ (A/B)
1. Fraxinus pennsylvanica	5	No	FAC	(*)
2. Celtis laevigata	2	No	FAC	Prevalence Index worksheet:
3. Carya ovata	1	No	FACU	Total % Cover of: Multiply by:
4				OBL species 0 $x 1 = 0$
				FACW species 0 $x 2 = 0$
5	8	Tatal Ca		FAC species 57 x 3 = 171
Herb Stratum (Plot size: 450sq ft)	<u> </u>		ver	FACU species 4 x 4 = 16
1 Lolium multiflorum	95	Yes	UPL	UPL species 97 x 5 = 485
2 Setaria italica	2	No	FACU	Column Totals: 158 (A) 672 (B)
3 Torillis arvensis	2	No	UPL	
A Amaranthus sp,	1	No	FACU	Prevalence Index = $B/A = 4.25$
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
7:				3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10	400			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plat size: 450 Sq ft)	100	= Total Cov	ver	¹ Indicators of hydric soil and wetland hydrology must
				be present, unless disturbed or problematic.
l				
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum ⁰	0	= I otal Cov	ver	Present? Yes No \times
Remarks:				1

SUL

(Inches)	Color (m=:=+)	0/	Redox Features	Loo ² Touture	Domostro
0-18	10 VR 3/1	<u> % </u>	color (moist) % Type	Loc lexture	Remarks
0-10	10 11(0/1			Oldy	
¹ Type: C=Co	ncentration, D=Dep	oletion, RM=Red	luced Matrix, CS=Covered or Coated	Sand Grains. ² Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil Ir	dicators: (Applic	able to all LRR	s, unless otherwise noted.)	Indicators	for Problematic Hydric Soils ³ :
Histosol (A1)		Sandy Gleyed Matrix (S4)	1 cm M	uck (A9) (LRR I, J)
Histic Epi	pedon (A2)		Sandy Redox (S5)		Prairie Redox (A16) (LRR F, G, H)
	tic (A3)		Stripped Matrix (S6)	Dark S	urface (S7) (LRR G)
	I Sullide (A4)	E)	Loamy Gleved Matrix (F2)		B H outside of MI BA 72 & 73)
	k (A9) (LRR F. G.	H)	Depleted Matrix (F3)		ed Vertic (F18)
Depleted	Below Dark Surfac	æ (A11)	Redox Dark Surface (F6)	Red Pa	irent Material (TF2)
Thick Dar	k Surface (A12)		Depleted Dark Surface (F7)	🔲 Very Sl	nallow Dark Surface (TF12)
🛄 Sandy Mi	ucky Mineral (S1)		Redox Depressions (F8)	Other (Explain in Remarks)
2.5 cm M	ucky Peat or Peat ((S2) (LRR G, H)	High Plains Depressions (F16) ³ Indicators	of hydrophytic vegetation and
5 cm Muc	ky Peat or Peat (S	3) (LRR F)	(MLRA 72 & 73 of LRR H) wetland	hydrology must be present,
Postrictivo I.	war (if procept)			uniess	disturbed or problematic.
Tupo	ayer (îl present).				
Depth (incl				Hudria Cail	Dressent2 Vac No X
Depth (incl	nes):		-	Hydric Soil	Present? Yes <u>No X</u>
Depth (incl Remarks:	nes):			Hydric Soil	Present? Yes <u>No X</u>
Depth (incl Remarks:	nes):	an clay, oc	casionally flooded is nati	Hydric Soil	Present? Yes <u>No X</u>
Depth (incl Remarks: No redox	^{nes):} features; Tir	nn clay, oc	casionally flooded is nati	Hydric Soil onally listed hy	Present? Yes <u>No X</u> dric soil; naturally dark soi
Depth (incl Remarks: No redox	features; Tir	nn clay, oc	casionally flooded is nati	Hydric Soil	Present? Yes <u>No X</u> dric soil; naturally dark soi
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Depth (incl Remarks: No redox IYDROLOC Wetland Hyd Primary Indica Surface V	features; Tir features; Tir SY rology Indicators: ators (minimum of c Vater (A1)	nn clay, oc	casionally flooded is nati	Hydric Soil Onally listed hy	Present? Yes <u>No X</u> dric soil; naturally dark soi
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Depth (incl Remarks: NO redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo	features; Tir fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3)	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled)	Hydric Soil Onally listed hy Seconda Spar Spar Oxid Roots (C3) W	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8)
Depth (incl Remarks: No redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wate High Water Ma Saturation Water Ma Sediment Drift Depo Algal Mat	features; Tir fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) irks (B1) Deposits (B2) osits (B3) or Crust (B4)	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4)	Hydric Soil Onally listed hy Seconda Spar Spar Drain Roots (C3) (W Status	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) nage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9)
Depth (incl Remarks: No redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Saturation U High Wate High Water Ma Sediment Drift Depo Algal Mat Iron Depo	features; Tir fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5)	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7)	Hydric Soil Onally listed hy Seconda Spar Spar Spar Drain Oxid Roots (C3) (w Geou	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2)
Depth (incl Remarks: No redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo	features; Tir Fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) posits (B3) or Crust (B4) posits (B5) n Visible on Aerial	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Hydric Soil Onally listed hy Seconda Spar Spar Oxid Spar Oxid Spar Cray Satu Geo FAC	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5)
Depth (incl Remarks: No redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wate Saturation Saturation Orift Depo Algal Mat Iron Depo Inundatio Water-Sta	features; Tir fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial ained Leaves (B9)	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Hydric Soil Onally listed hy Seconda Spar Spar Spar Oxid Spar Cray Satu Geou FAC Fros	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F)
Depth (incl Remarks: NO redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Field Observ	features; Tir fology Indicators: ators (minimum of c Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial ained Leaves (B9) ations:	nn clay, oc	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Hydric Soil Onally listed hy Seconda Spar Spar Spar Drain Oxid Cray Satu Geo FAC Fros	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F)
Depth (incl Remarks: NO redOX IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Field Observ Surface Wate	features; Tir fology Indicators: ators (minimum of of Vater (A1) er Table (A2) n (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) n Visible on Aerial ained Leaves (B9) ations: r Present?	Imagery (B7)	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Hydric Soil Onally listed hy Seconda Spar Spar Spar Spar Spar Cray Cray Satu Geo FAC Fros	Present? Yes <u>No X</u> dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F)
Depth (incl Remarks: NO redOX IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Field Observ Surface Wate Water Table F	features; Tir fology Indicators: ators (minimum of control Vater (A1) er Table (A2) in (A3) urks (B1) Deposits (B2) or Crust (B4) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial ained Leaves (B9) ations: r Present?	Imagery (B7)	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks)	Hydric Soil Onally listed hy Seconda Spar Spar Drain Oxid Cray Satu Geou FAC Fros	Present? Yes NoX dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F)
Depth (incl Remarks: NO redox IYDROLOC Wetland Hyd Primary Indica Surface V High Wat Saturation Water Ma Sediment Drift Depo Algal Mat Iron Depo Inundatio Water-Sta Field Observ Surface Wate Saturation Pre	features; Tir Fology Indicators: ators (minimum of control Vater (A1) er Table (A2) in (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial ained Leaves (B9) ations: r Present? Present? Y	Imagery (B7)	eck all that apply) Salt Crust (B11) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living (where not tilled) Presence of Reduced Iron (C4) Thin Muck Surface (C7) Other (Explain in Remarks) C Depth (inches): Depth (inches): Depth (inches):	Hydric Soil Onally listed hy Seconda Spar Signature Roots (C3) Wetland Hydrology Wetland Hydrology	Present? Yes NoX dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F)
Depth (incl Remarks: NO redOX IYDROLOC Wetland Hyd Primary Indica Surface V High Wate Saturation Water Ma Sodiment Drift Depo Algal Mate Iron Depo U Algal Mate Iron Depo U Algal Mater Sturface Water Surface Wate Water Table F Saturation Pre Saturation Pre Saturation Pre	features; Tir Fology Indicators: ators (minimum of control Vater (A1) er Table (A2) in (A3) urks (B1) Deposits (B2) osits (B3) or Crust (B4) osits (B5) in Visible on Aerial ations: r Present? Present? Y Present? Y	Imagery (B7)		Hydric Soil Onally listed hy Seconda Spar Spar Spar Drain Oxid Cray Satu Geo FAC Fros Wetland Hydrology ationa), if available:	Present? Yes NoX dric soil; naturally dark soi ry Indicators (minimum of two required) ace Soil Cracks (B6) sely Vegetated Concave Surface (B8) hage Patterns (B10) ized Rhizospheres on Living Roots (C3) here tilled) fish Burrows (C8) ration Visible on Aerial Imagery (C9) morphic Position (D2) -Neutral Test (D5) t-Heave Hummocks (D7) (LRR F) Present? Yes NoX



Project/Site: Lake Ralph Hall Supplemental JD	City/County:	_adonia/Fannin	Sampling Date: <u>6/2/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: <u>WP5</u>
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	concave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies Lat:	33.45254	Long: <u>-96.01153</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifi	cation: none
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain in F	Remarks.)
Are Vegetation, Soil, or Hydrology signification	antly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, SoilX_, or Hydrology natural	y problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ing sampling	point locations, transects	s, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes X No Yes No X Yes No X	Is the Sampled Area within a Wetland?	Yes	No_X
Remarks:				

700 (1	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica / Ulmus americana	5/5	No/No	FAC/FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	15	Yes	FAC	
3. Celtis laevigata	30	Yes	FAC	Total Number of Dominant
4. Maclura pomifera	15	Yes	FACU	Species Across All Strata: <u>5</u> (B)
	70	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 80 (A/B)
1. Celtis laevigata	5	No	FAC	
2. Maclura pomifera	10	No	FACU	Prevalence Index worksheet:
3. Ulmus crassifolia	5	No	FAC	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···	20	- Total Cov		FAC species x 3 =
Herb Stratum (Plot size: ^{450 sq ft})		- 10101000		FACU species x 4 =
1. Elymus virginicus	10	No	FAC	UPL species x 5 =
2. Ptilimnium nutalli	15	Yes	FACW	Column Totals: (A) (B)
3. Amaranthus tuberculatus	20	Yes	FAC	
4. Viola missouriensis	5	No	FACW	Prevalence Index = B/A =
5	_			Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7			·	✓ 2 - Dominance Test is >50%
7				\square 3 - Prevalence Index is ≤3.0 ¹
o 9.				4 - Morphological Adaptations ¹ (Provide supporting
10				
····	50	- Total Cov		Problematic Hydrophytic Vegetation (Explain)
Woody Vine Stratum (Plot size: 450 sq ft)		- 10101 001		¹ Indicators of hydric soil and wetland hydrology must
1. Parthenocissus quinquefolia	5	No	FACU	be present, unless disturbed or problematic.
2.				Hydrophytic
	5	- Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 50		- 10101 001		Present? Yes X No
Remarks:				1

SUL

Profile Desc	ription: (Describe	e to the depth	needed to docu	nent the i	ndicator	or confirn	n the absence	of indicators.)
Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/1	100					Clay	
<u> </u>								
					. <u> </u>	·		
1							. 2.	
Type: C=Co	oncentration, D=De	pletion, RM=Re	Be unless othe	S=Covered	d or Coate	d Sand G	rains. Loca	ation: PL=Pore Lining, M=Matrix.
	(A4)							
	(A1) Singdon (A2)			Jieyed IVia	(54)			UCK (A9) (LRR I, J) Proirie Bodox (A16) (LPB E C H)
	$A_{A_{A_{A_{A_{A_{A_{A_{A_{A_{A_{A_{A_{A$			A Matrix (SS	() (6)			$\frac{1}{1} \frac{1}{1} \frac{1}$
	en Sulfide (A4)			Mucky Mir	neral (F1)		High PL	ains Depressions (F16)
	d Lavers (A5) (LRR	F)		Gleved Ma	atrix (F2)		(LRI	R H outside of MLRA 72 & 73)
1 cm Mu	uck (A9) (LRR F, G,	, H)	Deplete	d Matrix (I	F3)			ed Vertic (F18)
Depleted	d Below Dark Surfa	ce (A11)	Redox I	Dark Surfa	ace (F6)		Red Pa	rent Material (TF2)
Thick Da	ark Surface (A12)		Deplete	d Dark Su	rface (F7)		Very Sł	nallow Dark Surface (TF12)
Sandy M	Aucky Mineral (S1)			Depressio	ns (F8)		Other (I	Explain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G, I	H) L High Pla	ains Depre	essions (F	16)	Indicators o	of hydrophytic vegetation and
	icky Peat or Peat (S	53) (LRR F)	(ML	RA /2 & /	(3 of LRR	H)	wetland	hydrology must be present,
Postrictive I	aver (if present):						uniess	disturbed of problematic.
Type	Layer (ii present).							
Depth (in	ches):		_				Hydric Soil I	Present? Ves No X
Deptil (int							Tryunc Son 1	
Remarks.								
No redox	(features: Ti	nn clav o	ccasionally	floode	d is na	tionall	v listed hv	dric soil: naturally dark soil
101000/		ini olay, o	obasionally	noouo		alloniali	y noted hy	and son, naturally dank son
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indic	cators (minimum of	one required; c	heck all that appl	y)			Seconda	ry Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			🔲 Surfa	ace Soil Cracks (B6)
🔲 High Wa	ater Table (A2)		🔲 Aquatic In	vertebrate	s (B13)		🗹 Spar	sely Vegetated Concave Surface (B8)
Saturatio	on (A3)		🔲 Hydrogen	Sulfide O	dor (C1)		Drair 🗌 🗌	nage Patterns (B10)
Water M	larks (B1)		Dry-Seaso	on Water T	able (C2)		🗌 Oxidi	ized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wl	here tilled)
Drift Dep	oosits (B3)		(where	not tilled)			Cray	fish Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4	l)	Satu	ration Visible on Aerial Imagery (C9)
Iron Dep	oosits (B5)		Thin Muck	Surface (C7)		Geor	morphic Position (D2)
🔲 Inundatio	on Visible on Aerial	Imagery (B7)	U Other (Exp	olain in Re	marks)		FAC-	-Neutral Test (D5)
Water-S	tained Leaves (B9)						Frost	t-Heave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wate	er Present?	Yes No	X Depth (in	ches):		_		
Water Table	Present?	Yes No	X Depth (in	ches):		_		
Saturation Pr (includes cap	resent? oillary fringe)	Yes No	X Depth (in	ches):		Wetl	and Hydrology	Present? Yes <u>No X</u>
Describe Re	corded Data (strear	m gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	if available:	

Remarks:





Project/Site: Lake Ralph HallSupplemental JD	City/County:	Ladonia/Fannin	Sampling Date: 6/2/2017			
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP6			
Investigator(s):	Section, Tow	Section, Township, Range:				
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>			
Subregion (LRR): <u>Southwest Prairies</u> Lat:	33.45295	Long: <u>-96.01133</u>	Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	ation: none			
Are climatic / hydrologic conditions on the site typical for this time of	of year? Yes X	No (If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology significa	ntly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No			
Are Vegetation, SoilX, or Hydrology naturally	/ problematic?	(If needed, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map show	ing sampling	point locations, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes X No	- Is the	Sampled Area				

Wetland Hydrology Present?	Yes X No	within a Wetland?	Yes X	No
Remarks:				

Heavy storms the previous day; forested wetland in wooded area near North Sulphur River channel

700 (1	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>700 sq π</u>)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	15	Yes	FAC	
3. Celtis laevigata	5	No	FAC	Total Number of Dominant
4				Species Across All Strata: (B)
	65	= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC:(A/B)
1. Cercis canadensis	10	No	UPL	
2. Fraxinus pennsyvanica	20	Yes	FAC	Prevalence Index worksheet:
3. Ulmus crassifolia	10	No	FAC	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···	40	- Total Ca		FAC species x 3 =
Herb Stratum (Plot size: ^{450 sq ft})		- 10101000		FACU species x 4 =
L. Elymus virginicus	5	No	FAC	UPL species x 5 =
2 Carex blanda	2	No	FAC	Column Totals: (A) (B)
3				
3				Prevalence Index = B/A =
4			·	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				✓ 2 - Dominance Test is >50%
7			·	3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
150	7	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft)	_			Indicators of hydric soil and wetland hydrology must
1. Parthenocissus quinquefolia	5		FACU	
2			FAC	Hydrophytic
20	5	= Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 93				
Remarks:				

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator o	or confirn	n the absence of	indicators.)
Depth (inches)	Color (moist)	%	Color (moist)	<u>ox Feature</u> %	s Type ¹	Loc ²	Texture	Remarks
0-2	10 YR 3/1	100					Clay	
2-18	10 YR 3/1	95	10 YR 5/4	5	С	М	Clay	
					·			
					·		<u> </u>	
					·		<u> </u>	
							<u></u>	
¹ Type: C=Co	oncentration, D=Der	 oletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (Applic	able to all	LRRs, unless othe	erwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm Muc	ck (A9) (LRR I, J)
Histic Ep	pipedon (A2)		Sandy	Redox (S5	5)		Coast Pra	airie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)			d Matrix (S	56)		Dark Surf	ace (S7) (LRR G)
Hydroge	n Sulfide (A4)	E)		Mucky Mil	neral (F1)		High Plair	ns Depressions (F16)
	ick (A9) (I RR F. G.	F) H)		ed Matrix (E3)			Vertic (F18)
Depleted	d Below Dark Surfac	ce (A11)	Redox	Dark Surfa	ace (F6)		Red Pare	nt Material (TF2)
Thick Da	ark Surface (A12)		Deplete	ed Dark Su	urface (F7)		Very Sha	llow Dark Surface (TF12)
Sandy N	lucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (Ex	plain in Remarks)
2.5 cm N	Aucky Peat or Peat	(S2) (LRR 0	5, H) L High P	lains Depre	essions (F	16)	°Indicators of	hydrophytic vegetation and
	ICKY Peat of Peat (S	3) (LRR F)	(101)	LRA /2 &	73 OF LRR	H)	wetland h	ydrology must be present,
Restrictive I	_aver (if present):							subed of problematic.
Type:								
Depth (ind	ches):						Hydric Soil Pr	esent? Yes ^X No
Remarks:	,						-	
Redox fe	atures presen	t; Tinn c	lay, occasion	ally floo	oded is	nation	ally listed hy	dric soil; naturally dark soil
	GY							
Wetland Hy	drology Indiastors							
	arology indicators:	no roquiroc	h abaak all that and	4			Secondary	Indiantors (minimum of two required)
Surface	$\frac{1}{2}$			+ (P11)				
	(A1)			vortobrate	e (B13)			W Vegetated Concave Surface (B8)
Saturatio	(A3)			Sulfide O	dor (C1)			ne Patterns (B10)
Water M	arks (B1)		Drv-Seas	on Water 1	Table (C2)			ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)			Rhizosphe	res on Livi	ng Roots	(C3) (whe	re tilled)
Drift Dep	posits (B3)		(where	not tilled)		-	Crayfis	h Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4)	Saturat	tion Visible on Aerial Imagery (C9)
Iron Dep	oosits (B5)		Thin Muc	k Surface ((C7)		Geomo	orphic Position (D2)
Inundatio	on Visible on Aerial	Imagery (B7	') 📙 Other (Ex	plain in Re	emarks)		FAC-N	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-H	leave Hummocks (D7) (LRR F)
Field Observ	vations:	Y			-2			
Surface Wate	er Present?	′es <u>^</u> ۱	No Depth (ir	nches):	<2	_		
Water Table	Present?	/es <u>^</u> 1	No Depth (ir	nches):	0	_		×
Saturation Pr (includes car	resent? Y	es <u>×</u> 1	No Depth (ir	nches):	0	_ Wetl	and Hydrology P	resent? Yes <u>^</u> No
Describe Red	corded Data (stream	n gauge, mo	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								







Project/Site: Lake Ralph Hall Supplemental JD	City/County:	Ladonia/Fannin s	Sampling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State: TX State:	Sampling Point: WP 11
Investigator(s): Jason Voight, Andrew Sample	Section, Tow	nship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, convex, none): <u>Concave</u>	Slope (%): 0-1%
Subregion (LRR): <u>Southwest Prairies</u> L	_at: <u>33.45325</u>	Long: <u>-95.94321</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classificat	tion: none
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes X	No (If no, explain in Rei	marks.)
Are Vegetation, Soil, or Hydrologysigni	ificantly disturbed?	Are "Normal Circumstances" pre	esent? Yes X No
Are Vegetation, Soil x, or Hydrology natu	rally problematic?	(If needed, explain any answers	in Remarks.)
SUMMARY OF FINDINGS – Attach site map she	owing sampling	point locations, transects,	important features, etc.
Hydrophytic Vegetation Present? Yes No _x	Is the	Sampled Area	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes	No <u>×</u> No <u>×</u> No <u>×</u>	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					

Remnant former North Sulphur River channel located within field west of SH 34; has been previously filled but still depressionally feature; not hydraulically or hydrologically connected to existing North Sulphur River channel

Tree Stratum (Plot size: 700 sq ft) % Cover Species? Status Number of Dominant Species 1. Salix nigra 50 Yes FACW Number of Dominant Species 2	(A) B)		
1. Salix nigra 50 Yes FACW That Are OBL, FACW, or FAC (excluding FAC-): 1 ((A) B)		
2. (excluding FAC-): 1 3. (figure 1) Total Number of Dominant 4. 50 = Total Cover Sapling/Shrub Stratum (Plot size: 700 sq ft) 50 = Total Cover Percent of Dominant Species 50% That Are OBL, FACW, or FAC: 50%	(A) B)		
3.	B)		
4. Species Across All Strata: 2 (I Sapling/Shrub Stratum (Plot size: 700 sq ft) 50 = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (I	B)		
Sapling/Shrub Stratum (Plot size: 700 sq ft) 50 = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (Area control of the second			
Sapling/Shrub Stratum (Plot size: 700 sq ft) That Are OBL, FACW, or FAC: 50% (A			
	A/B)		
)		
2. Prevalence Index worksheet:			
Total % Cover of: Multiply by:			
OBL species $0 \times 1 = 0$			
4 FACW species 50 x 2 = 100			
5 FAC species $20 x_3 = 60$			
Herb Stratum (Plot size: 450 sq ft) $\frac{0}{20}$ = Total Cover FACI species $\frac{20}{20}$ x 4 = $\frac{80}{20}$			
$\frac{1}{1} \log \frac{1}{1} \log \frac{1}{1} = \frac{1}{1} \sum_{i=1}^{n} \frac{1}{1} \sum_{i=1}^{n} \frac{1}{1} \log \frac{1}{1} \sum_{i=1}^{n} \frac{1}{1} \log \frac{1}{1} \sum_{i=1}^{n} \frac{1}{1} \sum_{i=1$			
Image: second	(D)		
	(D)		
3. $\frac{10}{10}$ $\frac{10}{10}$ $\frac{10}{10}$ $\frac{10}{10}$ Prevalence Index = B/A = $\frac{3.5}{3.5}$			
4. Setaria parvitiora 10 No FAC Hydrophytic Vegetation Indicators:			
5. Rudbeckia hirta 10 No FACU1 and phytic Vegetation indicators.			
8 3 - Prevalence Index is ≤3.0			
9 4 - Morphological Adaptations' (Provide suppo	rting		
10 Problematic Hydrophytic Vegetation ¹ (Explain)			
90 = Total Cover			
Woody Vine Stratum (Plot size: 450 sq ft) ¹ Indicators of hydric soil and wetland hydrology mu	st		
1 be present, unless disturbed or problematic.			
2 Hydrophytic			
0 = Total Cover Vegetation	Vegetation Present? Yes <u>No X</u>		
% Bare Ground in Herb Stratum 10 Present? Yes No ×			
Remarks:			
Remnant abapted within field recently tilled			

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Depth Matrix Redox Features (inches) Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-18 10 YR 2/1 90 Clay Clay Clay Clay	
(inches) Color (moist) % Color (moist) % Type ¹ Loc ² Texture Remarks 0-18 10 YR 2/1 90 Clav Clav	
0-18 10 YR 2/1 90 Clav	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M	-Matrix.
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric S	oils ³ :
Histosol (A1) Sandy Gleved Matrix (S4) 1 cm Muck (A9) (LRR I, J)	
Histic Epipedon (A2)	F. G. H)
Black Histic (A3)	,
Hydrogen Sulfide (A4)	
Stratified Lavers (A5) (LRR F) Loamy Gleved Matrix (F2) (LRR H outside of MLRA 72	& 73)
1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3)	,
Depleted Below Dark Surface (A11)	
Thick Dark Surface (A12)	<u>(</u>)
Sandy Mucky Mineral (S1) Redox Depressions (F8) Other (Explain in Remarks)	
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) ³ Indicators of hydrophytic vegetation	ind
5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be prese	nt,
unless disturbed or problematic.	
Restrictive Layer (if present):	
Туре:	
Depth (inches): Hydric Soil Present? Yes	No ^X
Remarks:	
No redox features observed: Tinn clay, occasionally flooded is nationally listed hydric soil: natural	v dark soil
······································	,
HYDROLOGY	
Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of	two required)
Surface Water (A1)	
$\square High Water Table (A2) \qquad \square Aquatic Invertebrates (B13) \qquad \square Sparsely Vegetated Conceve$	Surface (B8)
Saturation (A3)	
	a Poots (C2)
	ig Roots (C3)
	(20)
Algal Mat or Crust (B4)	agery (C9)
Inundation Visible on Aerial Imagery (B7)	
Image: Inform Deposits (B5) Image: Inform Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7)	(LRR F)
Image: Tron Deposits (B5) Image: Trin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Frost-Heave Hummocks (D7)	(LRR F)
Invirt Deposits (B5) Inin Muck Surrace (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Frost-Heave Hummocks (D7) Surface Water Present? Yes No X Depth (inches):	(LRR F)
Inin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes Yes No X Depth (inches):	(LRR F)
Inin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) Field Observations: No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches):	(LRR F)
Inor Deposits (B5) Inin Muck Surrace (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) Field Observations: No X Depth (inches): Water Table Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): (includes capillary fringe) Yes No X Depth (inches):	(LRR F)
Inor Deposits (B5) Inin Muck Surrace (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Field Observations: Frost-Heave Hummocks (D7) Field Observations: No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Cincludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	(LRR F)
Inor Deposits (B5) Inin Muck Surrace (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) Field Observations: Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Staulable:	(LRR F)
Inon Deposits (B5) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) FAC-Neutral Test (D5) Frost-Heave Hummocks (D7) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): (includes capillary fringe) Remarks:	(LRR F)


Project/Site: Lake Ralph Hall Supplement	al JD	Cit	y/County: Lac	lonia/Fannin		Sampling Date	e: 5/31/2017
Applicant/Owner: Upper Trinity Regional V	Vater District			Stat	e: TX	Sampling Poin	t: WP 12
Investigator(s): Jason Voight, Andrew Sar	nple	Se	ction, Townsh	ip, Range:			
Landform (hillslope, terrace, etc.): Valley		Lo	ocal relief (con	cave, convex, nor	e): Concave		Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies		Lat: <u>33.453</u>	861	Long: <u>-9</u> 5	5.94423	Da	atum: NAD83
Soil Map Unit Name: Tinn Clay, Occasion	ally Flooded				NWI classifie	cation: none	
Are climatic / hydrologic conditions on the	site typical for this	s time of year?	Yes X	No (If no	o, explain in F	Remarks.)	
Are Vegetation, Soil, or H	ydrologys	ignificantly dis	sturbed?	Are "Normal Cire	cumstances"	present? Yes	X No
Are Vegetation, Soil x, or H	ydrology r	aturally proble	ematic?	(If needed, expla	ain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Att	ach site map	showing s	ampling po	pint locations	, transects	s, important	features, etc.
Hydrophytic Vegetation Present?	Yes <u>×</u> N	o	Is the Sa	mpled Area			
Hydric Soil Present? Wetland Hydrology Present?	Yes N Yes N	0 <u>^</u> 0 <u>X</u>	within a	Wetland?	Yes	<u>No x</u>	_

Remarks:

Remnant former North Sulphur River channel located within field west of SH 34; has been previously filled but still depressional feature; not hydraulically or hydrologically connected to existing North Sulphur River channel

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size: <u>700 sq ft</u>)	% Cover	Species?	Status	Number of Dominant Species	
1. Salix nigra	40	Yes	FACW	That Are OBL, FACW, or FAC	
2. Celtis laevigata	20	Yes	FAC	(excluding FAC-): 5	(A)
3.				Total Number of Dominant	
4.				Species Across All Strata: 7 ((B)
	60	- Total Cov	/or	Derived of Device of Oracian	
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- 10101 00		That Are OBL FACW or FAC 71%	(A/B)
1.					(****)
2				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	
				OBL species x 1 =	
4				FACW species x 2 =	
5				FAC species x 3 =	
Harb Stratum (Plat size: 450 Sq ft	0	= Total Cov	/er		
Lolium multiflorum	15	Yes	IIPI		
- Sarahum halanansa	15	Voc	EACU		
2. Sorghuin naiepense	10	165		Column Totals: (A)	(B)
3. Eleocharis palustris	15	Yes	OBL	Prevalence Index - B/A -	
4. Rumex altissimus	15	Yes	FAC	Hydrophytic Vogetation Indicators:	
5. Xanthium strumarium	15	Yes	FAC		
6					
7.				2 - Dominance Test is >50%	
8.				3 - Prevalence Index is ≤3.0	
9				4 - Morphological Adaptations ¹ (Provide suppo	orting
10				data in Remarks or on a separate sneet)	
10	75	Total Car		Problematic Hydrophytic Vegetation' (Explain))
Woody Vine Stratum (Plot size: 450 sq ft)			/er	¹ Indicators of hydric soil and wetland hydrology mu	ust
1 Nekemias arborea	5	No	FAC	be present, unless disturbed or problematic.	
··				Underschutte	
2	5	Tatal Oa		Vegetation	
% Bare Ground in Herb Stratum 25	0	= I otal Cov	/er	Present? Yes X No	
Remarks:				1	-
Domnant abannal located within field re	a a a a thui t	illad			
Remnant channel located within field re	ecently t	mea.			

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(inches) Color (moist) % Color (moist) % Type! Loc2 0-18 10 YR 2/1 90	Texture Remarks Clay
0-18 10 YR 2/1 90 0 0-18 10 YR 2/1 90 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 1 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0	Clay Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
'Type:	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No _X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grain Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A1) Sandy Gleyed Matrix (S4) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR F, MICH Peat (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Type: Depleted Dark Surface (A12) Remarks: No redox features observed; Tinn clay, occasionally flooded is national surface (MICH Peat (MLRA 72 & 73 of LRR H) Remarks: No redox features observed; Tinn clay, occasionally flooded is national surface (MICH Peat (MLRA 72 & 73 of LRR H) YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Outpet Matrix (MLRA 72 & MLRA 72	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No _X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grait tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F6) Thick Dark Surface (A12) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Type: Depleted Sufface (S3) Depletic features observed; Tinn clay, occasionally flooded is national sufface (Mineral) VDROLOGY Octaous (Mathed Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Octaous (Mathed Hydrology Indicators:	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grait Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histic Epipedon (A2) Sandy Redox (S5) Black Histic (A3) Loamy Micky Mineral (F1) Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2) Tick Dark Surface (A5) (LRR F, G, H) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Type: Depleted Selows features observed; Tinn clay, occasionally flooded is national supermarks: No redox features observed; Tinn clay, occasionally flooded is national supermarks: Primary Indicators (minimum of one required; check all that apply)	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grait Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A1) Sandy Gleyed Matrix (S4) Black Histic (A3) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR F) Loamy Mucky Mineral (F1) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Sandy Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F8) Sort Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Type: Depleted Dark Surface (A12) Depth (inches): Redox features observed; Tinn clay, occasionally flooded is national to the second se	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grain Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A1) Sandy Gleyed Matrix (S4) Black Histic (A3) Loamy Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR F) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Remarks: Io redox features observed; Tinn clay, occasionally flooded is national train the apply) Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No _X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grai tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A2) Sandy Redox (S5) Black Histic (A3) Coarny Mucky Mineral (F1) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Depth (inches): Depth (inches): Matrix (Sa) VBROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Out Out (Matrix)	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No _X
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Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grain tydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Histosol (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) Startictive Layer (if present): Type: Depth (inches): Remarks: Io redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	ns. ² Location: PL=Pore Lining, M=Matrix. Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A1) Sandy Gleyed Matrix (S4) Histosol (A1) Sandy Redox (S5) Black Histic (A3) Stripped Matrix (S6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Stratified Layers (A5) (LRR F, G, H) Depleted Matrix (F3) Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Thick Dark Surface (A12) Depleted Dark Surface (F7) Sandy Mucky Mineral (S1) Redox Depressions (F8) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Remarks: No redox features observed; Tinn clay, occasionally flooded is national provided is national provid	Indicators for Problematic Hydric Soils ³ : 1 cm Muck (A9) (LRR I, J) Coast Prairie Redox (A16) (LRR F, G, H) Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
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Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) Mucky Peat or Peat (S3) (LR F)	 Dark Surface (S7) (LRR G) High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Hydrogen Sulfide (A4) Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Remarks: Io redox features observed; Tinn clay, occasionally flooded is national strength of the required; check all that apply) Purface Wither (A1)	High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Remarks: No redox features observed; Tinn clay, occasionally flooded is nationally flooded is nation	(LRR H outside of MLRA 72 & 73) Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No X
1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type:	Reduced Vertic (F18) Red Parent Material (TF2) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes NoX
	Very Shallow Dark Surface (TF12) Other (Explain in Remarks) ³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) Redox Depressions (F8) 4 High Plains Depressions (F16) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Remarks: Io redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Check all that apply) Primary Indicators (minimum of one required; check all that apply)	Other (Explain in Remarks) Other (Explain in Remarks) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes No
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F16) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Remarks: No redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	³ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Hydric Soil Present? Yes <u>No X</u>
S cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Remarks: No redox features observed; Tinn clay, occasionally flooded is nationally PDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	wetland hydrology must be present, unless disturbed or problematic.
Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Remarks: Io redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasionally flooded is national to redox features observed; Tinn clay, occasional to redox features observed; Tinn clay, occ	unless disturbed or problematic. Hydric Soil Present? Yes No X
Restrictive Layer (if present): Type: Depth (inches): Depth (inches): Remarks: No redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Wester (Ad)	Hydric Soil Present? Yes No _X
Type: Depth (inches): Remarks: No redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	Hydric Soil Present? Yes <u>No ^X</u>
Depth (inches): Remarks: No redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Outfood Water (Ad)	Hydric Soil Present? Yes No X
Remarks: No redox features observed; Tinn clay, occasionally flooded is nationa YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Primary Mater (Ad)	
No redox features observed; Tinn clay, occasionally flooded is national YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	
YDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Outfors Water (A4)	ally listed by drie soil, potyrally dork a
YDROLOGY Netland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply)	any instea myane son, naturany dark s
Vetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Ourfores (Mater (Ad))	
Primary Indicators (minimum of one required; check all that apply)	
	Secondary Indicators (minimum of two required
Surrace water (A1) L Salt Crust (B11)	Surface Soil Cracks (B6)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C
Sediment Deposits (B2)	(where tilled)
Drift Deposits (B3) (where not tilled)	$\Box \text{ Cravifish Burrows (C8)}$
Algal Mat or Crust (B4)	Saturation Visible on Aerial Imagery (C9)
	\square Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	$\Box = FAC-Neutral Test (D5)$
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
ield Observations:	
Surface Water Present? Yes No ^X Depth (inches):	
Vater Table Present? Yes No X Depth (inches):	
Saturation Present? Yes No X Depth (inches): Wetlan	d Hydrology Present? Yes No $\frac{X}{2}$
includes capillary fringe)	
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if a	
	available:
emarks:	available:





Project/Site: Lake Ralph Hall Supplemental JD	City/County: L	adonia/Fannin	Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 13
Investigator(s): Jason Voight, Andrew Sample	Section, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): Concave	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: <u>33.45447</u>	Long: <u>-95.94407</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	ation: none
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrologysig	nificantly disturbed?	Are "Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil X, or Hydrology nat	turally problematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map sl	howing sampling	point locations, transects	, important features, etc.
Hydrophytic Vegetation Present? Veg X			

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>×</u> Yes Yes <u>×</u>	No No <u>×</u> No	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					

Remnant former North Sulphur River channel located within field west of SH 34; has been previously filled but still depressionally feature; not hydraulically or hydrologically connected to existing North Sulphur River channel

700 //	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Salix nigra	50	Yes	FACW	That Are OBL, FACW, or FAC
2. Ulmus americana	30	Yes	FAC	(excluding FAC-): 3 (A)
3				Total Number of Dominant
4.				Species Across All Strata: <u>3</u> (B)
	80	= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100% (A/B)
1. Ulmus americana	10	No	FAC	,
2. Celtis laevigata	5	No	FAC	Prevalence Index worksheet:
3				Total % Cover of:Multiply by:
A.				OBL species x 1 =
				FACW species x 2 =
D	15			FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)	10	= Total Cov	/er	FACU species x 4 =
Lolium multiflorum	10	No	UPL	$IIPI \text{ species} \qquad x 5 =$
 Rumex altissimus 	5	No	FAC	
	15	Ves		
Sarahum balananaa		N		Prevalence Index = $B/A =$
			FACU	Hydrophytic Vegetation Indicators:
5. I oxicodendron radicans	3	NO	FACU	1 - Rapid Test for Hydrophytic Vegetation
6				1 Rapid rest for Hydrophytic Vegetation
7				
8				\square 3 - Prevalence index is ≤ 3.0
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	35	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 ft)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2				Hydrophytic
	0	= Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum <u>65</u>				Present? Yes <u>×</u> No
Remarks:				
Remnant channel located within field w	here re	cent tilla	ige occi	urred

JUIL

Profile Desc	cription: (Describ	e to the depth n	eeded to docu	ment the i	ndicator	or confiri	m the absenc	e of indicator	's.)	
Depth (inchos)	Matrix		Rede	ox Features	S Turno ¹		Toyturo		Bomorko	
<u>(incries)</u>		%(70	Type	LOC			Remarks	
0-10	10 11(2/1					·	Clay	· ·		
								·		
							·			
							·	<u></u>		
								<u> </u>		
¹ Type: C=C	oncentration, D=De	epletion, RM=Re	duced Matrix, C	S=Covered	d or Coate	ed Sand G	arains. ² Lo	ocation: PI =P	ore Lining, M=I	Matrix
Hydric Soil	Indicators: (Appl	icable to all LRF	Rs, unless othe	rwise not	ed.)		Indicator	s for Problem	natic Hydric Sc	oils ³ :
Histosol	(A1)		Sandy	Gleved Ma	atrix (S4)		🗌 1 cm	Muck (A9) (LI	RR I. J)	
Histic E	pipedon (A2)		Sandy	Redox (S5)		Coas	t Prairie Redo	x (A16) (LRR F	, G , H)
Black H	istic (A3)		Strippe	d Matrix (S	, 6)		🔲 Dark	Surface (S7)	(LRR G)	,
Hydroge	en Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		🔲 High	Plains Depres	sions (F16)	
Stratifie	d Layers (A5) (LRF	R F)	Loamy	Gleyed Ma	atrix (F2)		(L	RR H outside	of MLRA 72 8	k 73)
📙 1 cm Mւ	uck (A9) (LRR F, G	, H)		ed Matrix (I	F3)		Redu	ced Vertic (F1	8)	
Deplete	d Below Dark Surfa	ace (A11)	Redox	Dark Surfa	ice (F6)			Parent Materia	al (TF2)	
	ark Surface (A12)			ed Dark Su	rface (F7))		Shallow Dark	Surface (TF12)	
Sandy N	Mucky Mineral (S1)			Depression	ns (F8)		Other	(Explain in R	emarks)	
	Mucky Peat or Pea	t (S2) (LRR G, H		ains Depre	essions (F	16)	Indicator	s of hydrophyt	ic vegetation ai	nd
	ucky Peat of Peat (53) (LRR F)	(IVII	.RA / 2 & /	3 OF LRR	(H)	wetiai	na nyarology r a diaturbad ar	nust be presen	t,
Restrictive	l aver (if present)	1					unies		problematic.	
Type	Layer (ii present).									
Donth (in	abaa);		-				Hydria Sa	il Drocont?	Vac	No X
Depth (in	cnes):		_				nyaric So	Il Present?	res	
Remarks:										
No rodov	features obs	arved: Tinn (lav occasi	onally f	hahool	is natio	nally listo	d hydric so	sil: naturally	, dark soil
			51ay, 000a31	onany n	looucu	13 Hatte			, naturang	y uark son
HYDROLO	GY									
Wetland Hy	drology Indicator	s:								
Primary Indi	cators (minimum of	one required; ch	eck all that app	ly)			Second	ary Indicators	(minimum of ty	wo required)
Surface	Water (A1)		Salt Crust	: (B11)			🔲 Su	rface Soil Cra	cks (B6)	
🔲 High Wa	ater Table (A2)		Aquatic Ir	vertebrate	s (B13)		🗹 Sp	arsely Vegeta	ted Concave S	urface (B8)
Saturati	on (A3)		Hydrogen	Sulfide O	dor (C1)			ainage Patterr	ns (B10)	
✓ Water M	larks (B1)		Dry-Seas	on Water T	able (C2)		🗖 Ox	idized Rhizos	pheres on Livin	g Roots (C3)
	nt Deposits (B2)			Rhizosphe	res on Liv	ring Roots	(C3) (where tilled)		
Drift De	posits (B3)		(where	not tilled)		0		ayfish Burrows	s (C8)	
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4	4)	🗖 Sa	turation Visibl	e on Aerial Ima	aerv (C9)
Iron Der	posits (B5)		Thin Muc	 Surface (C7)	,	🔲 Ge	omorphic Pos	sition (D2)	J- J (/
Inundati	ion Visible on Aeria	l Imagery (B7)	Other (Ex	plain in Re	marks)			C-Neutral Tes	st (D5)	
Water-S	Stained Leaves (B9)			/			ost-Heave Hur	nmocks (D7) (LRR F)
Field Obser	vations:	,							. , , ,	,
Surface Wat	er Present?	Yes No	X Depth (ir	ches):						
Water Table	Present?	Yes No	X Depth (ir	iches):		_				
Saturation P	recent?	Ves No	X Depth (ir	(ches):		Wet	land Hydrolo	av Present?	Vos X	No
(includes ca	pillary fringe)	10		icites)		_ ////		gyrresenti	103	110
Describe Re	corded Data (strea	m gauge, monito	ring well, aerial	photos, pr	evious ins	pections)	, if available:			
Remarks:										
Remnan	t former Nor	h Sulphur F	River chan	nel wes	st of SH	134 n	reviously	filled but	still denreg	ssional
. connun			and on on an	.01 0000		· • • , p	. Stroubly	mou but		55151101





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fa	annin	Sampling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 14
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Ran	ge:	
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, c	onvex, none): <u>Conca</u>	/e Slope (%): 0-1%
Subregion (LRR): <u>Southwest Prairies</u>	Lat: <u>33.4532</u>	Long: <u>-95.9451</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI class	ification: none
Are climatic / hydrologic conditions on the site typical for this	time of year? Yes X No	(If no, explain ir	n Remarks.)
Are Vegetation, Soil, or Hydrologys	ignificantly disturbed? Are "N	Normal Circumstances	s" present? Yes X No
Are Vegetation, Soil x, or Hydrology n	aturally problematic? (If nee	eded, explain any ans	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing sampling point lo	cations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes x No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	$\frac{1}{2} \frac{x}{x}$ Is the Sampled within a Wetland	Area d? Yes	No <u>×</u>
VEGETATION – Use scientific names of plant	remnant former North Illy connected to existin ts.	Sulphur River g North Sulphu	channel; former ır River channel

700 //	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species	
1. Carya illinoinensis	90	Yes	FAC	That Are OBL, FACW, or FAC	
2. Celtis laevigata	5	No	FAC	(excluding FAC-):	(A)
3. Ulmus americana	5	No	FAC	Total Number of Dominant	
4.	_			Species Across All Strata: 2	(B)
	100	- Total Cov	/er	Demonst of Deminerat Creation	
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- 10101 001		That Are OBL, FACW, or FAC: 100%	(A/B)
1. Celtis laevigata	10	Yes	FAC		()
2.				Prevalence Index worksheet:	
3				Total % Cover of: Multiply by:	-
аа				OBL species x 1 =	_
				FACW species x 2 =	_
5	10	Tatal Car		FAC species x 3 =	_
Herb Stratum (Plot size: ⁴⁵⁰ sq ft)			er	FACU species x 4 =	_
1. Lolium multiflorum	5	No	UPL	UPL species x 5 =	
2				Column Totals: (A)	(B)
3				()	. ()
A.				Prevalence Index = B/A =	_
				Hydrophytic Vegetation Indicators:	
5				1 - Rapid Test for Hydrophytic Vegetation	
0		<u> </u>	<u> </u>	✓ 2 - Dominance Test is >50%	
/				□ 3 - Prevalence Index is $\leq 3.0^{1}$	
8				4 - Morphological Adaptations ¹ (Provide supp	orting
9			<u> </u>	data in Remarks or on a separate sheet)	•
10				Problematic Hydrophytic Vegetation ¹ (Explain	1)
Manda Mine Olectore (Distaine 450 sq ft	5	= Total Cov	/er	¹ Indiantors of hydric coil and watland hydrology m	unt
Woody vine Stratum (Plot size: 400 sq n				be present, unless disturbed or problematic.	usi
1			<u> </u>		
2				Hydrophytic	
% Dans Original is that Original 95	0	= Total Cov	/er	Present? Yes ^X No	
% Bare Ground in Herb Stratum					
Remarks.					

Outside edge of forested wetland within remnant former channel of North Sulphur River located within field west of SH 34

Inclust Color (moist) % Color (moist) 9 0-18 10 YR 2/1 99 10 YR 4/6 1	✓ Type¹ C C C C ✓ C ✓ ✓ <	. <u>Loc²</u>	Texture Clay Clay Clay Indicators Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S) High Plains Dep (LRR H outs) Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³Indicators of hydrop wetland hydrolog unless disturbed	Remarks L=Pore Lining, M=Matrix. Idematic Hydric Soils ³ : 0 (LRR I, J) edox (A16) (LRR F, G, H) S77 (LRR G) pressions (F16) side of MLRA 72 & 73) ·(F18) terial (TF2) ark Surface (TF12) in Remarks) obytic vegetation and gy must be present, d or problematic. ? Yes No X
0-18 10 YR 2/1 99 10 YR 4/6 1	C vered or Coate noted.) vered or Coate no	M	Clay	L=Pore Lining, M=Matrix. Dematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
Image:	vered or Coate noted.) ad Matrix (S4) x (S5) rrix (S6) y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F7) assions (F8) Depressions (F8) Depressions (F8)) 	Ains. ² Location: PL Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present ²	L=Pore Lining, M=Matrix. blematic Hydric Soils³:) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) bressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) bytic vegetation and gy must be present, d or problematic. ? Yes No X
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, CA Histor Soil Indicators: (Applicable to all LRRs, unless otherwise Histor Soil Indicators: (Applicable to all LRRs, unless otherwise Histor Soil Indicators: (Aany Gleyee Histor Case (A1) Sandy Redox Black Histic (A3) Stripped Matrix Loamy Gleyee I cm Muck (A9) (LRR F, G, H) Loamy Gleyee Loamy Gleyee I cm Muck (A9) (LRR F, G, H) Depleted Dar Redox Depree Sandy Mucky Mineral (S1) Redox Depree High Plains D S cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D High Plains D S cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) MLRA 72 Restrictive Layer (if present): Type: MLRA 72 Type: MLRA 72 MLRA 73	vered or Coate noted.) ad Matrix (S4) x (S5) y Mineral (F1) d Matrix (F2) trix (F3) Surface (F6) rk Surface (F7) essions (F8) Depressions (F8) Depressions (F8)) :16) ₹ H)	Ains. ² Location: Pl Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present?	L=Pore Lining, M=Matrix. blematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) bhytic vegetation and gy must be present, d or problematic. ? Yes No X
Image:	vered or Coate > noted.) ad Matrix (S4) x (S5) :rix (S6) :y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F7) >ssions (F8) Depressions (F8) Depressions (F8)) 2d Sand Grai	hins. ² Location: PL Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydropo wetland hydrologo unless disturbed Hydric Soil Present ²	L=Pore Lining, M=Matrix. Dematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Con Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise Histosol (A1) Sandy Gleyer Histic Epipedon (A2) Sandy Redox Black Histic (A3) Stripped Matrix Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Mucky 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Depleted Dar 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	vered or Coate noted.) ed Matrix (S4) x (S5) rrix (S6) ey Mineral (F1) ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F6) rk Surface (F7) essions (F8) Depressions (F8) Depressions (F8)) :16) ₹ H)	Ains. ² Location: PL Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present ²	L=Pore Lining, M=Matrix. Dematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) phytic vegetation and gy must be present, d or problematic. ? Yes No X
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Con Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise Histosol (A1) Sandy Gleyer Histosol (A1) Sandy Redox Black Histic (A3) Stripped Matrix Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Mucky 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Depleted Dar 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	vered or Coate noted.) ad Matrix (S4) x (S5) rrix (S6) y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F7) essions (F8) Depressions (F8) Depressions (F8) 2 & 73 of LRF) :16) t H)	ins. ² Location: Pl Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	L=Pore Lining, M=Matrix. blematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) phytic vegetation and gy must be present, d or problematic. ? Yes No <u>X</u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion, Reduced Matrix, CS=Concentration, CA Histosol (A1) Histosol (A1) Sandy Redox Histosol (A1) Histosol (A2) Sandy Redox Black Histic (A3) Stripped Matrix Loamy Mucky Hydrogen Sulfide (A4) Loamy Mucky Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Mucky Loamy Gleyee 1 cm Muck (A9) (LRR F, G, H) Depleted Dar Redox Dark S Sandy Mucky Mineral (S1) Depleted Dar Redox Depre 2.5 cm Mucky Peat or Peat (S2) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: (MLRA 72) Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY Histosol (A12) Histosol (A12)	vered or Coate noted.) ed Matrix (S4) x (S5) y Mineral (F1) ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F7 essions (F8) Depressions (F8) Depressions (F8)) 3d Sand Grai 3d Sand Grai 16) 16) 16)	Ains. ² Location: Pl Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydropo wetland hydrologo unless disturbed Hydric Soil Present ²	L=Pore Lining, M=Matrix. Dematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Cov Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise Histosol (A1) Sandy Gleyer Histic Epipedon (A2) Sandy Redox Black Histic (A3) Stripped Matrix Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Depleted Matrix Tom Muck (A9) (LRR F, G, H) Depleted Matrix Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Redox Depre High Plains D Mucky Peat or Peat (S2) (LRR F, Sc m Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	vered or Coate a noted.) ad Matrix (S4) x (S5) rrix (S6) y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F7) assions (F8) Depressions (F8) Depressions (F8)	ed Sand Grai	ins. ² Location: PL Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	L=Pore Lining, M=Matrix. Dematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes <u>No X</u>
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise Histosol (A1) Sandy Gleyed Histosol (A1) Sandy Gleyed Histic Epipedon (A2) Sandy Redox Black Histic (A3) Stripped Matrix Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Mucky 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Redox Depre 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	vered or Coate a noted.) ed Matrix (S4) x (S5) rix (S6) y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F6) rk Surface (F7) assions (F8) Depressions (F8) 2 & 73 of LRF	ed Sand Grai	hins. ² Location: Pl Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	L=Pore Lining, M=Matrix. Ilematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) phytic vegetation and gy must be present, d or problematic. ? Yes No X
^h Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion, RM=Reduced Matrix, CS=Concentration, D=Depletion all LRRs, unless otherwise Histosol (A1) Sandy Gleye Histosol (A1) Sandy Gleye Histosol (A1) Sandy Gleye Histosol (A1) Sandy Gleye Histosol (A1) Sandy Redox Black Histic (A3) Stripped Matrix Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Gleye 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix Depleted Below Dark Surface (A11) Redox Dark Surface (A12) Sandy Mucky Mineral (S1) Depleted Darix 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type: Depth (inches): Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY Statures observed; Tinn clay, occasi	vered or Coatt a noted.) ed Matrix (S4) x (S5) rrix (S6) ry Mineral (F1) ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F7 essions (F8) Depressions (F 2 & 73 of LRF	ed Sand Grai) :16) ≀ H)	Ains. ² Location: PL Indicators for Prob 1 cm Muck (A9) Coast Prairie Re Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	L=Pore Lining, M=Matrix. blematic Hydric Soils ³ :) (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise Histosol (A1) Sandy Gleyee Histic Epipedon (A2) Sandy Redox Black Histic (A3) Stripped Math Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Depleted Math 1 cm Muck (A9) (LRR F, G, H) Depleted Math Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Depleted Dar 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72) Restrictive Layer (if present): Type: Type:	e noted.) ad Matrix (S4) x (S5) :rix (S6) :y Mineral (F1) ad Matrix (F2) trix (F3) Surface (F6) rk Surface (F7 assions (F8) Depressions (F8) 2 & 73 of LRF) ∶16) ≀ H)	Indicators for Prob	olematic Hydric Soils ³ : ol (LRR I, J) edox (A16) (LRR F, G, H) S7) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) obytic vegetation and gy must be present, d or problematic.
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Black Histic (A3) Stripped Mati Hydrogen Sulfide (A4) Loamy Mucky Stratified Layers (A5) (LRR F) Loamy Gleye 1 cm Muck (A9) (LRR F, G, H) Depleted Mati Depleted Below Dark Surface (A11) Redox Dark S Thick Dark Surface (A12) Depleted Dar Sandy Mucky Mineral (S1) Depleted Oar 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) High Plains D 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 7) Restrictive Layer (if present): Type: Depth (inches): Sandy ficient redox features observed; Tinn clay, occasi YDROLOGY	trix (S6) sy Mineral (F1) ed Matrix (F2) trix (F3) Surface (F6) rk Surface (F7 essions (F8) Depressions (F 2 & 73 of LRF) ∶16) ≀ H)	Dark Surface (S High Plains Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	57) (LRR G) pressions (F16) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
Hydrogen Suffide (A4) Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) Kestrictive Layer (if present): Type: Depth (inches): Sufficient redox features observed; Tinn clay, occasi	y Mineral (F1) ed Matrix (F2) ttrix (F3) Surface (F6) rk Surface (F7 essions (F8) Depressions (F 2 & 73 of LRF) ≈16) ₹ H)	High Plans Dep (LRR H outs Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present ²	side of MLRA 72 & 73) side of MLRA 72 & 73) (F18) terial (TF2) ark Surface (TF12) in Remarks) obytic vegetation and gy must be present, d or problematic.
1 cm Muck (A9) (LRR F, G, H) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 7: Restrictive Layer (if present): Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi	ttrix (F3) Surface (F6) rk Surface (F7 essions (F8) Depressions (F '2 & 73 of LRF) ₹16) ₹ H)	Reduced Vertic Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present	(F18) terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic. Yes No
Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 7: Restrictive Layer (if present): Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	Surface (F6) rk Surface (F7 essions (F8) Depressions (F '2 & 73 of LRF) ² 16) X H)	Red Parent Mat Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	terial (TF2) ark Surface (TF12) in Remarks) ohytic vegetation and gy must be present, d or problematic.
Thick Dark Surface (A12) Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) Restrictive Layer (if present): Type: Depth (inches): Remarks: Ansufficient redox features observed; Tinn clay, occasi	rk Surface (F7 essions (F8) Depressions (F 2 & 73 of LRF) ₹16) ₹ H)	Very Shallow Da Other (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	ark Surface (TF12) in Remarks) obytic vegetation and gy must be present, d or problematic. ? Yes <u>No X</u>
Sandy Mucky Mineral (S1) 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 7: Restrictive Layer (if present): Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	essions (F8) Depressions (F 2 & 73 of LRF	₹16) ₹ H)	Uther (Explain in ³ Indicators of hydrop wetland hydrolog unless disturbed	in Remarks) ohytic vegetation and gy must be present, d or problematic. ? Yes No X
2.5 cm Mucky Peat or Peat (S2) (LRR G, H) General S3 (LRR F) (MLRA 7: (MLRA 7: Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	Depressions (F	⁻ 16) R H)	^o Indicators of hydrop wetland hydrolog unless disturbed Hydric Soil Present?	ohytic vegetation and gy must be present, d or problematic. ? Yes No X
S cm Mucky Peat of Peat (S3) (LRR F) (MLRA 7. Restrictive Layer (if present): Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi YDROLOGY	2 & 73 of LRF	(H)	Wetland hydrolog unless disturbed Hydric Soil Present?	gy must be present, d or problematic. ? Yes <u>No X</u>
Restrictive Layer (if present): Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi			Hydric Soil Present?	? Yes <u>No X</u>
Type: Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi			Hydric Soil Present?	? Yes No <u>×</u>
Depth (inches): Remarks: nsufficient redox features observed; Tinn clay, occasi			Hydric Soil Present?	? Yes <u>No ^X</u>
Remarks: nsufficient redox features observed; Tinn clay, occasi		I		
nsufficient redox features observed; Tinn clay, occasi 				
nsufficient redox features observed; Tinn clay, occasi				
YDROLOGY	ionally floor	ded is nati	tionally listed hydr	ric soil; naturally dark soi
Wetland Hydrology Indicators:			Cocordon Indicat	tore (minimum of two required)
-Inmary indicators (minimum or one required, check all that apply)	<u> </u>			Creake (RC)
Sufface Water (A1) Saft Crust (B11)) brotoo (P12)			CIACKS (BD)
Saturation (A3)	de Odor (C1)			terns (B10)
Water Marks (B1)	ater Table (C2))		zospheres on Living Roots (C3)
Sediment Deposits (B2)	spheres on Liv	/ina Roots (C	C3) (where tille	ed)
Drift Deposits (B3) (where not til	lled)	g i tooto (o	Cravfish Burr	rows (C8)
Algal Mat or Crust (B4)	educed Iron (C	4)	Saturation Vis	sible on Aerial Imagery (C9)
Iron Deposits (B5)	ace (C7)	,	Geomorphic I	Position (D2)
📃 Inundation Visible on Aerial Imagery (B7) 🛛 🔲 Other (Explain i	in Remarks)		FAC-Neutral	Test (D5)
Water-Stained Leaves (B9)			Frost-Heave I	Hummocks (D7) (LRR F)
Field Observations:				
Surface Water Present? Yes No X Depth (inches)):	_		
Nater Table Present? Yes <u>No X</u> Depth (inches)):	_		
Saturation Present? Yes <u>No X</u> Depth (inches)):	Wetlan	nd Hydrology Presen	it? Yes <u>No ^X</u>
(includes capillary tringe) Describe Recorded Data (stream dauge, monitoring well, aerial photo	s. previous inc	spections) if	available:	
		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		
Remarks:				
Nutrido adap of forestad water d within reserve				







Project/Site: Lake Ralph Hall Supplemental JD	City/County:	Ladonia/Fannin	_ Sampling Date: 6/2/2017				
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP57				
Investigator(s): <u>Jason Voight, Andrew Sample</u>	Section, Tow	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Valley	Local relief (_ Local relief (concave, convex, none): <u>Concave</u>					
Subregion (LRR): Southwest Prairies	33.45353	Long: <u>-96.01078</u>	Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI class	sification: none				
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain i	n Remarks.)				
Are Vegetation, Soil, or Hydrology signific	antly disturbed?	Are "Normal Circumstance	s" present? Yes X No				
Are Vegetation, SoilX, or Hydrology natural	lly problematic?	problematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map show	wing sampling	point locations, transed	cts, important features, etc.				
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes X No Wetland Hydrology Present? Yes X No	Is the within	Sampled Area a Wetland? Yes	X No				

Remarks:

Heavy storms the previous day; forested wetland in wooded area near North Sulphur River channel

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species	
1. Fraxinus pennsylvanica	85	Yes	FAC	That Are OBL, FACW, or FAC	2
2				(excluding FAC-):	<u> </u>
3				Total Number of Dominant	
4.				Species Across All Strata:	2 (B)
	85	= Total Cov	/er	Percent of Dominant Spacing	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL. FACW. or FAC: 1	00 (A/B)
1. Fraxinus pennsyvanica	10	No	FAC		
2.				Prevalence Index worksheet:	
3				Total % Cover of: Mult	iply by:
4				OBL species x 1 =	
4				FACW species x 2 =	
5	10			FAC species x 3 =	
Herb Stratum (Plot size: 450 sq ft)	10	= I otal Cov	/er	FACU species x 4 =	
Ptilimnium nutalli	85	Yes	FACW		
Carex blanda	5	No	FAC		(D)
		110			(D)
3				Prevalence Index = $B/A =$	
4				Hydrophytic Vegetation Indicators:	
5				1 Papid Tast for Hydrophytic Voc	notation
6					Jetation
7					
8.				3 - Prevalence Index is ≤3.0	
9.		·		4 - Morphological Adaptations ¹ (Pr data in Remarks or on a separa	ovide supporting ate sheet)
10				Problematic Hydrophytic Vegetatio	on ¹ (Explain)
	90	= Total Cov	/er		
Woody Vine Stratum (Plot size: 450 sq ft)				'Indicators of hydric soil and wetland hy	ydrology must
1				be present, unless disturbed of probler	
2				Hydrophytic	
	0	= Total Cov	/er	Vegetation	
% Bare Ground in Herb Stratum <u>10</u>				Present? Yes <u>^</u> No	
Remarks:					

Profile Desc	cription: (Describe	to the dept	n needed to docur	nent the i	indicator	or confirm	the absence o	of indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	
0-2	10 YR 3/2	100	10 YR 5/4	15	C	M	Clay		
·					·				
					·				
						<u> </u>			
		<u> </u>							
						·			
		lotion RM-I	Paduaad Matrix CS		d or Cooto	d Sond Cr	21 000	ation: DI - Doro Lining M-Matrix	
Hydric Soil	Indicators: (Applic	able to all I	RRs. unless other	wise not	ed.)	u Sanu Gi	Indicators f	or Problematic Hydric Soils ³	
	(A1)			Sloved Ma	riv (S4)				
Histic F	pipedon (A2)		Sandy E	Redox (S5	5)		Coast P	Prairie Redox (A16) (LRR F. G. H)	
Black H	istic (A3)			d Matrix (S	56)		Dark Su	urface (S7) (LRR G)	
Hydroge	en Sulfide (A4)		Loamy I	Mucky Mir	neral (F1)		🔲 High Pla	ains Depressions (F16)	
Stratifie	d Layers (A5) (LRR I	=)	Loamy 🤇	Gleyed Ma	atrix (F2)		(LRF	R H outside of MLRA 72 & 73)	
📙 1 cm Mı	uck (A9) (LRR F, G, I	H)	Deplete	d Matrix (I	F3)		Reduce	d Vertic (F18)	
	d Below Dark Surfac	e (A11)		Dark Surfa	ace (F6)		Red Pa	rent Material (TF2)	
	ark Surface (A12)			d Dark Su	Irface (F7)			hallow Dark Surface (TF12)	
	/lucky Mineral (51) Mucky Peat or Peat (S2) (I PP G			NS (F8)	16)	³ Indicators of	=xplain in Remarks)	
	icky Peat or Peat (S	$\frac{(\mathbf{L}\mathbf{R}\mathbf{R}\mathbf{G})}{(\mathbf{I}\mathbf{R}\mathbf{R}\mathbf{F})}$, n) <u> </u>	RA 72 & 7	73 of I RR	H)	wetland	hydrology must be present	
		<i>(</i> _ , (_ , ,))	(••)	unless	disturbed or problematic.	
Restrictive	Layer (if present):							·	
Туре:									
Depth (in	ches):						Hydric Soil F	Present? Yes \underline{X} No	
Remarks:									
Redox fe	atures presen	t; Tinn cl	ay, occasiona	ally floo	oded is	nationa	ally listed h	ydric soil; naturally dark soil	
	21								
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of c	ne required;	check all that appl	<u>y)</u>			Secondar	y Indicators (minimum of two required)	
Surface	Water (A1)		Salt Crust	(B11)				ice Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic Inv	vertebrate	es (B13)			sely Vegetated Concave Surface (B8)	
Saturati	on (A3)			Sulfide O	dor (C1)			age Patterns (B10)	
Water N	larks (B1)			on Water T	Table (C2)	_		zed Rhizospheres on Living Roots (C3)	
	nt Deposits (B2)			Rhizosphe	res on Livi	ng Roots ((C3) (wh	nere tilled)	
	posits (B3)		(where i	not tilled)				tish Burrows (C8)	
	at or Crust (B4)			of Reduce	ed Iron (C4	·)		ation Visible on Aerial Imagery (C9)	
				Surrace ((C7)			Northal Test (D5)	
	on visible on Aerial I	magery (B7)		plain in Re	emarks)			Hoovo Hummocks (DZ) (I PP E)	
	wations:								
Surface Wet	valions.		Donth /in	chec);	3				
Motor Toble			Depth (In	ches):	0	-			
Soturation D		τος Χ Ν	Depth (In	ones)	0	- Moth	and Hydrology	Brosopt2 Vos X No	
(includes car	pillary fringe)	es <u>^_</u> N	Deptn (in	unes):	~		anu nyurology	FIESEIL! IES NO	
, . .	aardad Data (atraam	aquido mor	vitoring well periol	ohotos pr	evious ins	pections).	if available:		

Remarks:







Project/Site: Lake Ralph Hall Supplemental JD	City/C	ounty: Ladonia/Fannin	Sampling Date: 6/2/2017				
Applicant/Owner: Upper Trinity Regional Water District			State: TX	Sampling Point: WP58			
Investigator(s): Jason Voight, Andrew Sample	Sectio	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Valley	Local	relief (concave, conve	x, none): <u>Concave</u>	Slope (%): 0-1%			
Subregion (LRR): <u>Southwest Prairies</u> La	at: <u>33.45353</u>	Lon	g: <u>-96.01074</u>	Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded			NWI classifi	cation: none			
Are climatic / hydrologic conditions on the site typical for this time	e of year? Y	es X No	(If no, explain in F	Remarks.)			
Are Vegetation, Soil, or Hydrology signifi	cantly distur	disturbed? Are "Normal Circumstances" present? Yes X Normal Circumstances yes Normal Circumstances yes Normal Norm					
Are Vegetation, SoilX, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map sho	wing sam	pling point locat	ions, transects	s, important features, etc.			
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No 2 Wetland Hydrology Present? Yes No 2	x x	Is the Sampled Area within a Wetland?	Yes	NoX			
Remarks:	1						
Outside of the forested wetland delineated	in wp57						
VEGETATION – Use scientific names of plants.							

700 //	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	20	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	60	Yes	FAC	(excluding FAC-): 3 (A)
3				Total Number of Dominant
A.				Species Across All Strata: ³ (B)
	80	Tatal Oa		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	00	= Total Cov	/er	Percent of Dominant Species
<u>oupming/onrub orlatani</u> (Filot size:)	10	No	FAC	That Are OBL, FACW, of FAC:(A/B)
 Celtis laevigata 	15	No	FAC	Prevalence Index worksheet:
	10	110	170	Total % Cover of: Multiply by:
3				
4				
5				FACVV species X 2 =
	25	= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)				FACU species x 4 =
1. Amaranthus tuberculatus	70	Yes	FAC	UPL species x 5 =
2. Ptilimnium nutalli	5	No	FACW	Column Totals: (A) (B)
3. Elymus virginicus	5	No	FAC	
4. Carex blanda	5	No	FAC	Prevalence Index = B/A =
5 Viola missouriensis	5	No	FACW	Hydrophytic Vegetation Indicators:
S				1 - Rapid Test for Hydrophytic Vegetation
0				✓ 2 - Dominance Test is >50%
7				□ 3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	90	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft)				¹ Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed or problematic.
2.				Hydrophytic
	0	= Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 10				Present? Yes <u>×</u> No
Remarks:				1

Profile Desc	ription: (Describe	to the depth n	eeded to docu	ment the i	indicator	or confirm	m the absence of	of indicators.)	
Depth	Matrix		Redo	x Feature	<u>s</u> 1	. 2	_	_	
(inches)	Color (moist)	<u> % (</u>	Color (moist)	%	Type	Loc	Texture	Rema	arks
0-2	10 YR 3/2	100					Clay		
							. <u> </u>		
							·		
					·		·		
					·		·		
					·				
¹ Type: C=C	oncentration, D=Dep	pletion, RM=Rec	luced Matrix, C	S=Covered	d or Coate	d Sand G	arains. ² Loca	ation: PL=Pore Lini	ng, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRR	s, unless othe	rwise not	ed.)		Indicators f	or Problematic Hy	dric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm M	uck (A9) (LRR I, J)	
	pipedon (A2)		Sandy	Redox (S5	5)		Coast F	Prairie Redox (A16)	(LRR F, G, H)
	stic (A3)			d Matrix (S	56) aarol (F 1)			urface (S7) (LRR G	·) [10]
	H Suilide (A4)	E)		Gleved M:	atrix (F2)			R H outside of MI	₹ ∆ 72 & 73)
	uck (A9) (LRR F. G.	• / H)		ed Matrix (I	F3)			d Vertic (F18)	(112 0 10)
Deplete	d Below Dark Surfac	ce (A11)	Redox	Dark Surfa	ace (F6)		Red Pa	rent Material (TF2)	
Thick D	ark Surface (A12)		Deplete	ed Dark Su	urface (F7)		🔲 Very Sł	allow Dark Surface	(TF12)
Sandy N	lucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (I	Explain in Remarks)
2.5 cm l	Mucky Peat or Peat	(S2) (LRR G, H)	High Pl	ains Depre	essions (F	16)	³ Indicators o	of hydrophytic veget	ation and
5 cm Mu	ucky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 & 7	73 of LRR	H)	wetland	hydrology must be	present,
Postriativa	over (if present)						unless (disturbed or probler	natic.
Type	Layer (il present).								
Dopth (in	choc):						Hydric Soil I	Procont? Voc	No X
Depth (in	cnes).						Hydric Soli I	resent? res_	
Remarks:									
No redox	features pres	ent [.] Tinn cl	av. occasio	nally flo	ooded i	s natio	nally listed l	nydric soil [,] na	turally dark soil
		,	.,,				,,	· , ····	
HYDROLO	GY								
Wetland Hy	drology Indicators:	:							
Primary Indi	cators (minimum of o	one required; ch	eck all that app	ly)			<u>Seconda</u>	y Indicators (minim	um of two required)
Surface	Water (A1)		Salt Crust	(B11)			🔲 Surfa	ace Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic In	vertebrate	es (B13)		🔲 Spar	sely Vegetated Cor	cave Surface (B8)
Saturati	on (A3)		Hydrogen	Sulfide O	dor (C1)		🔲 Drair	age Patterns (B10)	
Water N	larks (B1)		Dry-Sease	on Water T	Table (C2)		🔲 Oxidi	zed Rhizospheres	on Living Roots (C3)
Sedime	nt Deposits (B2)			Rhizosphe	res on Liv	ing Roots	(C3) (wi	nere tilled)	
	posits (B3)		(where	not tilled)			Cray	fish Burrows (C8)	
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	1)	🔲 Satu	ration Visible on Ae	rial Imagery (C9)
	oosits (B5)		Thin Mucl	surface ((C7)		🔲 Geor	norphic Position (D	2)
Inundati	on Visible on Aerial	Imagery (B7)	Other (Ex	plain in Re	emarks)		FAC-	Neutral Test (D5)	
Water-S	tained Leaves (B9)						Frost	-Heave Hummocks	(D7) (LRR F)
Field Obser	vations:								
Surface Wat	er Present?	′es No _	X Depth (in	ches):		_			
Water Table	Present?	/es No _	X Depth (in	iches):		_			N.
Saturation P	resent?	res No _	X Depth (in	iches):		Wet	land Hydrology	Present? Yes	No
Describe Re	corded Data (stream	n gauge, monito	ring well, aerial	photos, pr	evious ins	pections)	, if available:		
Remarks:									
1									





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Far	Sampling Date: 6/1/2017	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP86
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Rang	e:	
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, co	nvex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies Lat: 33.	45293	_ong: <u>-95.97781</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	cation: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "No	ormal Circumstances" p	present? Yes X No
Are Vegetation, Soil X, or Hydrology naturally pr	oblematic? (If need	led, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point loc	ations, transects	, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No <u>X</u>	within a Wotland?	Vos	No X
Wetland Hydrology Present?	Yes X	No		165	NO
Remarks:			·		

depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700 //	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species		
1. Fraxinus pennsylvanica	5	No	FAC	That Are OBL, FACW, or FAC		
2. Celtis laevigata	30	Yes	FAC	(excluding FAC-): (A)		
3. Ulmus crassifolia/Ulmus americana	10/30	No/Yes	FAC/FAC	Total Number of Dominant		
4. Quercus shumardii/Quercus macrocarpa	5/5	No/No	FAC/FACU	Species Across All Strata: 2 (B)		
	85	= Total Cov	/er	Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: (A/B)		
1. Quercus shumardii	10	No	FAC			
2. Quercus macrocarpa	10	No	FACU	Prevalence Index worksheet:		
3. Celtis laevigata	15	No	FAC	Total % Cover of: Multiply by:		
4.				OBL species x 1 =		
5				FACW species x 2 =		
	35	- Total Cov	/or	FAC species x 3 =		
Herb Stratum (Plot size: 450 sq ft)		- 10101000		FACU species x 4 =		
1. Elymus virginicus	2	No	FAC	UPL species x 5 =		
2. Viola missouriensis	2	No	FACW	Column Totals: (A) (B)		
3.						
4.				Prevalence Index = B/A =		
5				Hydrophytic Vegetation Indicators:		
e				1 - Rapid Test for Hydrophytic Vegetation		
8				✓ 2 - Dominance Test is >50%		
				□ 3 - Prevalence Index is $\leq 3.0^{1}$		
8				4 - Morphological Adaptations ¹ (Provide supporting		
9				data in Remarks or on a separate sheet)		
10				Problematic Hydrophytic Vegetation ¹ (Explain)		
Manual Mine Otractions (Distances 450 sq ft	4	= Total Cov	/er	¹ Indiantors of hydric coil and watland hydrology must		
Voody Vine Stratum (Plot size: <u>400 39 m</u>)	2	No	EACU	be present, unless disturbed or problematic.		
			FACU			
2. Smilax bona-nox/Campsis radicans		INO	FAC/UFACU	Hydrophytic		
96	<u>6</u> = Total Cover		/er	Vegetation Present? Yes X No		
% Bare Ground in Herb Stratum						
Remarks:						

SUL

Profile Desc	cription: (Describe	to the depth	needed to docur	nent the i	ndicator	or confirm	the absence of	f indicators.)	
Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks	;
0-1	10 YR 2/1	100					Clay		
				·					
				·					
				·					
							, <u> </u>		
				·					
17 0.0									
Type: C=C	oncentration, D=Dep	pletion, RM=Re	duced Matrix, CS	S=Covered	d or Coate	d Sand Gr	ains. ² Locat	tion: PL=Pore Lining,	M=Matrix.
					=u.)				50115.
	(A^{1})			Sieyea ivia	trix (54)			CK (A9) (LRR I, J)	
	$p_{1}p_{2}p_{3}p_{3}p_{4}p_{4}p_{4}p_{5}p_{4}p_{5}p_{4}p_{5}p_{5}p_{5}p_{5}p_{5}p_{5}p_{5}p_{5$			Matrix (S)	/ :6)			rface (S7) (I RR G)	кг, G, п)
	en Sulfide (A4)			Mucky Min	neral (F1)		High Pla	ins Depressions (F16))
Stratified	d Lavers (A5) (LRR I	F)		Gleved Ma	atrix (F2)		(LRR	H outside of MLRA	72 & 73)
1 cm Mu	uck (A9) (LRR F, G,	H)	Deplete	d Matrix (F	=3)			d Vertic (F18)	,
Deplete	d Below Dark Surfac	e (A11)	Redox [Dark Surfa	ce (F6)		Red Pare	ent Material (TF2)	
Thick Da	ark Surface (A12)		Deplete	d Dark Su	rface (F7)		Very Sha	allow Dark Surface (Th	F12)
Sandy N	/lucky Mineral (S1)			Depressior	ns (F8)		Uther (E	xplain in Remarks)	
2.5 cm N	Mucky Peat or Peat ((S2) (LRR G, H	I) 📙 High Pla	ains Depre	essions (F	16)	°Indicators of	hydrophytic vegetatic	on and
5 cm Mu	ucky Peat or Peat (S	3) (LRR F)	(ML	RA 72 & 7	3 of LRR	H)	wetland I	nydrology must be pre	sent,
Postrictivo	l aver (if present):						uniess a	isturbed or problemati	С.
Type:	Layer (il present).								
Depth (in	ches):		—				Hydric Soil P	rosont? Vos	No X
Pomorke:	cnes).						Tryune Son T		
Remains.									
No redox	x features: Tir	nn clav io	ccasionally	floode	d is na	ationally	v listed hvd	lric soil [,] natura	llv dark soil
110 1000/		in oldy, o	coucieriany	noodo		allonian.	y notod nyd		
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of c	one required; c	heck all that appl	y)			Secondary	/ Indicators (minimum	of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surfac	ce Soil Cracks (B6)	
🛛 🔲 High Wa	ater Table (A2)		Aquatic Inv	vertebrates	s (B13)		🗹 Spars	ely Vegetated Concav	e Surface (B8)
Saturatio	on (A3)		Hydrogen	Sulfide Oc	dor (C1)		Draina	age Patterns (B10)	
Water N	larks (B1)		Dry-Seaso	n Water T	able (C2)			ed Rhizospheres on L	iving Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizospher	res on Livi	ing Roots	(C3) (wh	ere tilled)	
Drift Dep	posits (B3)		(where I	not tilled)			Crayfi 🔄	sh Burrows (C8)	
Algal Ma	at or Crust (B4)			of Reduce	d Iron (C4	l)	Satura	ation Visible on Aerial	Imagery (C9)
Iron Dep	posits (B5)		Thin Muck	Surface (C7)		Geom	orphic Position (D2)	
Inundati	on Visible on Aerial	Imagery (B7)	U Other (Exp	olain in Re	marks)			Neutral Test (D5)	
Water-S	stained Leaves (B9)						Frost-	Heave Hummocks (D	7) (LRR F)
Field Obser	vations:		V						
Surface Wat	er Present? Y	'es No	X Depth (in	ches):		_			
Water Table	Present? Y	es No	X Depth (in	ches).					

 Saturation Present?
 Yes _____ No _X Depth (inches): ______
 Wetland Hydrol

 (includes capillary fringe)
 Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Yes _____ No __X Depth (inches): ____

Remarks:

Wetland Hydrology Present? Yes X No





Project/Site: Lake Ralph Hall Supplemental JD	City/County: L	adonia/Fannin	_ Sampling Date: <u>6/2/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: WP133
Investigator(s): Jason Voight, Andrew Sample	Section, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	e Slope (%): 0-1%
Subregion (LRR): Southwest Prairies	Lat: <u>33.45045</u>	Long: <u>-96.01480</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classi	fication: none
Are climatic / hydrologic conditions on the site typical for this t	me of year? Yes X	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances'	' present? Yes X No
Are Vegetation, SoilX, or Hydrology nat	urally problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sl	nowing sampling	point locations, transect	s, important features, etc.
Hydrophytic Vegetation Present? Yes X No	Is the s	Sampled Area	
Hydric Soil Present? Yes No	x within	a Wetland? Yes	No X
Wetland Hydrology Present? Yes <u>No</u>	<u>×</u>		
Remarks:			
Heavy storms the previous day; wooded	area near North	n Sulphur River chann	el

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	20	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	50	Yes	FAC	(excluding FAC-): 3 (A)
3. Maclura pomifera	15	No	FACU	Total Number of Dominant
4				Species Across All Strata: (B)
	85	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC:75 (A/B)
1. Cornus drummondi	5	No	FAC	
2. Celtis laevigata	15	No	FAC	Prevalence Index worksheet:
3.				Total % Cover of:Multiply by:
4	_			OBL species x 1 =
5				FACW species x 2 =
	20	- Total Ca		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)		= 101a1 00	VEI	FACU species x 4 =
1. Toxicodendron radicans	15	No	FACU	UPL species x 5 =
2. Carex planostachys	40	Yes	UPL	Column Totals: (A) (B)
3. Elymus virginicus	40	Yes	FAC	
4.				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6	_			1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
0				3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10	05			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft)	90	= Total Cov	ver	¹ Indicators of hydric soil and wetland hydrology must
1 Lonicera japonica	5	No	FACU	be present, unless disturbed or problematic.
2				Lindramhatia
2	5	Tatal Car		Vegetation
% Bare Ground in Herb Stratum ⁵	<u> </u>	= 10tal CO	vei	Present? Yes X No
Remarks:				1

|--|

	Matrix		Redo	ox Features				·
<u>(inches)</u>	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-2	10 YR 3/2	100					Clay	
							·· · ·	
					. <u> </u>		<u> </u>	
Type: C-C	Concentration D-Der	letion RM-Re	duced Matrix C	S=Covered	or Coate	d Sand Gr	rains ² Location	o: PI – Pore Lining M–Matrix
Hype: 0=0	Indicators: (Applic	able to all LR	Rs. unless othe	rwise note	d.)		Indicators for	Problematic Hydric Soils ³ :
				Gloved Mat	riv (S1)			
	ninedon (A2)			Reday (S5)	IIIX (34)			(A3) (LRK I, J)
Black H	listic (A3)			Matrix (S)	6)			$(\mathbf{R}, \mathbf{G}, \mathbf{G})$
Hydrog	en Sulfide (A4)			Mucky Min	eral (F1)			Depressions (E16)
Stratifie	d Lavers (A5) (I RR	F)		Gleved Ma	trix (F2)			outside of MI RA 72 & 73)
	uck (A9) (I RR F. G.	H)		ed Matrix (F	(1 Z)			ertic (F18)
	d Below Dark Surfac	e (A11)		Dark Surfa	ce (F6)		Red Parent	t Material (TF2)
Thick D	ark Surface (A12)		Deplete	ed Dark Su	face (F7)		Very Shallo	ow Dark Surface (TF12)
Sandy I	Mucky Mineral (S1)		Redox	Depression	is (F8)		Other (Exp	lain in Remarks)
2.5 cm	Mucky Peat or Peat ((S2) (LRR G, H) 🔲 High Pl	lains Depre	ssions (F	16)	³ Indicators of hy	vdrophytic vegetation and
5 cm M	ucky Peat or Peat (S	3) (LRR F)	(ML	LRA 72 & 7	3 of LRR	H)	wetland hyd	drology must be present,
							unless dist	urbed or problematic.
Restrictive	Layer (if present):							
Туре:			_					
Depth (ir	iches):						Hydric Soil Pres	sent? Yes No ^X
Remarks:	,		_					
tornantor								
No redox	features prese	ent [.] Tinn c	lav. occasio	onally flo	oded is	s natior	hally listed hyd	dric soil: naturally dark
		,	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,				
YDROLO	OGY							
YDROLC)GY vdrology Indicators:							
YDROLC	OGY vdrology Indicators:	one required: cl	neck all that app	lv)			Secondary Ir	dicators (minimum of two requi
YDROLC Vetland Hy Primary Indi	DGY rdrology Indicators: cators (minimum of c	one required; cl	neck all that app	ly) t (B11)			Secondary Ir	ndicators (minimum of two requires
YDROLC	DGY rdrology Indicators: cators (minimum of c water (A1)	one required; cl	heck all that app	l <u>y)</u> t (B11)	(D12)		Secondary Ir	idicators (minimum of two requires Soil Cracks (B6)
YDROLC Wetland Hy Primary Indi	DGY vdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) inc. (A2)	one required; cl	heck all that app	t (B11) vertebrates	s (B13)		Secondary Ir	ndicators (minimum of two requin Soil Cracks (B6) v Vegetated Concave Surface (B
YDROLC Wetland Hy Primary Indi Surface High Wa Saturati	DGY vdrology Indicators: icators (minimum of c water (A1) ater Table (A2) ion (A3)	one required; cl	heck all that app Salt Crusi Aquatic Ir Hydrogen	ily) t (B11) nvertebrates n Sulfide Od	s (B13) or (C1)		Secondary Ir	ndicators (minimum of two requin Soil Cracks (B6) v Vegetated Concave Surface (E e Patterns (B10)
YDROLC Vetland Hy Primary Indi Surface High Wa Saturati Water N	DGY vdrology Indicators: vactors (minimum of c vactors (A1) ater Table (A2) ion (A3) Marks (B1)	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Seas	ily) t (B11) nvertebrates n Sulfide Od on Water T	s (B13) or (C1) able (C2)		Secondary Ir	ndicators (minimum of two requin Soil Cracks (B6) v Vegetated Concave Surface (E e Patterns (B10) I Rhizospheres on Living Roots
YDROLC Vetland Hy Primary Indi Surface High Wa Saturati Water N Sedime	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2)	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized	ly) t (B11) nvertebrates n Sulfide Od on Water T Rhizospher	s (B13) or (C1) able (C2) es on Livi	ng Roots	Secondary Ir Surface Sparsely Drainage Oxidized (C3)	ndicators (minimum of two requin Soil Cracks (B6) v Vegetated Concave Surface (E e Patterns (B10) I Rhizospheres on Living Roots e tilled)
YDROLC Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De	DGY vdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3)	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Seas Oxidized (where	ily) t (B11) nvertebrates n Sulfide Od on Water T Rhizospher not tilled)	s (B13) or (C1) able (C2) es on Livi	ng Roots	Secondary Ir Surface Sparsely Crainage Oxidized (C3) Crayfish	ndicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence	t (B11) nvertebrates a Sulfide Od on Water T Rhizospher not tilled) of Reduced	s (B13) or (C1) able (C2) es on Livi d Iron (C4	ng Roots (Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8) on Visible on Aerial Imagery (C9
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Saturati Vater M Sedime Drift De Algal M. Iron De	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl	t (B11) nvertebrates a Sulfide Od on Water T Rhizospher not tilled) of Reduces k Surface ((s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7)	ng Roots (Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Saturatio Geomor	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots I tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2)
YDROLC Wetland Hy Primary Indi Primary Indi Surface High W. Saturati Vater M Sedime Drift De Algal M. Iron De Inundat	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl Other (Ex	t (B11) nvertebrates a Sulfide Od on Water T Rhizospher not tilled) of Reduces k Surface ((plain in Rei	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Saturatio Geomor FAC-Net	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots I Rhizospheres on Living Rootspheres on Living Rootspheres on
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Drift De Inundat Water-S	Advance of the second state of the second stat	one required; cl	heck all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl Other (Ex	ly) t (B11) nvertebrates o Sulfide Od on Water T Rhizospher not tilled) of Reduces k Surface ((plain in Rei	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Crainage Oxidized (C3) (where Crayfish Saturatio Geomor FAC-Nei Frost-He	Adicators (minimum of two requinations) Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots Herited) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) wave Hummocks (D7) (LRR F)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M. Iron De Inundat Water-S Field Obser	DGY rdrology Indicators: icators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations:	one required; cl Imagery (B7)	heck all that app Salt Crusi Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence Thin Mucl Other (Ex	I <u>y)</u> t (B11) nvertebrates n Sulfide Od on Water T Rhizospher not tilled) of Reduce k Surface ((splain in Rei	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Crainage Oxidized (C3) Crayfish Saturatio Geomor FAC-Net Frost-He	Adicators (minimum of two requinations) Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots a tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M. Iron De Unundat Water-S Field Obser Surface Wat	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) mt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	one required; cl Imagery (B7) res No	Aquatic Ir Aquatic Ir Aquatic Ir Dry-Sease Oxidized (where Presence Thin Much Other (Ex	IV) t (B11) nvertebrates n Sulfide Od on Water T Rhizospher not tilled) of Reducee k Surface ((plain in Rei nches):	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Crainage Oxidized (C3) Crayfish Saturatio Geomor FAC-Net Frost-He	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Algal M Iron De Inundat Water-Se Surface Water Surface Water	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Ye Present?	one required; cl Imagery (B7) 'es No	Aquatic Ir Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Much Other (Ex X Depth (ir X Depth (ir	IV) t (B11) nvertebrates a Sulfide Od on Water T. Rhizospher not tilled) of Reduced k Surface ((plain in Rei nches):	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Crainage Oxidized (C3) (where Crayfish Saturatio Geomorp FAC-Net Frost-He	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M Iron De Inundat Water-S Field Obser Surface Water Nater Table	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Y	imagery (B7) (es No	Aquatic Ir Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl Other (Ex X Depth (ir X Depth (ir	IV) t (B11) nvertebrates a Sulfide Od on Water T. Rhizospher not tilled) of Reduced k Surface ((plain in Rei nches):	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Oxidized (C3) (where Crayfish Saturatio Geomorp FAC-Nee Frost-Hee	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) wave Hummocks (D7) (LRR F)
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Drift De Algal M. Iron De Inundat Water-S Field Obser Surface Water Surface Water Surface Carter Surface Car	DGY rdrology Indicators: icators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? Y pillary fringe)	one required; cl Imagery (B7) 'es No 'es No 'es No	Aquatic Ir Aquatic Ir Aquatic Ir Dry-Sease Oxidized Presence Thin Mucl Other (Ex X Depth (ir X Depth (ir X Depth (ir	t (B11) nvertebrates a Sulfide Od on Water T Rhizospher not tilled) of Reduced k Surface ((plain in Rei nches): nches):	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots (Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Saturation FAC-Nei Frost-He and Hydrology Press	Adicators (minimum of two requines Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots I Rhizospheres (C8) I Rhizospheres (C8) I Rhizospheres (C9) I Rhizo
YDROLC Wetland Hy Primary Indi Surface High W. Saturati Water M Sedime Drift De Algal M. Iron De Inundat Water-S Field Obser Surface Wat Water Table Saturation F Cincludes ca Describe Re	DGY rdrology Indicators: cators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) Int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? Pipillary fringe) coorded Data (stream	Imagery (B7) (es No No No) (es No No) (es No)	Aquatic Ir Aquatic Ir Aquatic Ir Dry-Sease Oxidized Presence Thin Mucl Other (Ex X Depth (ir X Depth (ir X Depth (ir x	t (B11) nvertebrates a Sulfide Od on Water T. Rhizospher not tilled) of Reduced k Surface ((plain in Rei nches): nches): photos, pre	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks) evious insj	ng Roots	Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Saturation FAC-Nei Frost-He and Hydrology Pre- if available:	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
YDROLC Vetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Drift De Inundat Iron De Inundat Surface Wai Vater Table Saturation P includes ca Describe Re	DGY rdrology Indicators: icators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Pre	Imagery (B7) (es No _ (es No _ (es No _	Aquatic Ir Aquatic Ir Aquatic Ir Dry-Sease Oxidized (where Presence Thin Mucl Other (Ex X Depth (ir X Depth (ir X Depth (ir x	IV) t (B11) nvertebrates n Sulfide Od on Water T Rhizospher not tilled) of Reduced k Surface ((plain in Rei nches): nches): photos, pre	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots	Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Saturation Geomory FAC-Nei Frost-He and Hydrology Pro- if available:	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots Patterns (C8) On Visible on Aerial Imagery (C9 Phic Position (D2) Utral Test (D5) Pave Hummocks (D7) (LRR F)
YDROLC Vetland Hy Primary Indi Surface High W. Saturati Water N Sedime Drift De Drift De Inundat Iron De Inundat Water-S ield Obser Surface Water Vater Table Saturation P includes ca Describe Re	DGY rdrology Indicators: icators (minimum of c Water (A1) ater Table (A2) ion (A3) Marks (B1) int Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Pre	Imagery (B7) (es No (es No (es No a gauge, monito	Acuatic Ir Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl Other (Ex X Depth (ir X Depth (ir X Depth (ir X Depth (ir X Depth (ir	It (B11) avertebrates a Sulfide Od on Water T. Rhizospher not tilled) of Reducer k Surface ((aplain in Ren aches): photos, pre	s (B13) or (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ng Roots	Secondary Ir Surface Sparsely Oxidized Oxidized (C3) (where Crayfish Saturatio Geomory FAC-Nei Frost-He and Hydrology Pro- if available:	Adicators (minimum of two requin Soil Cracks (B6) Vegetated Concave Surface (E Patterns (B10) I Rhizospheres on Living Roots e tilled) Burrows (C8) on Visible on Aerial Imagery (C9 phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)





Project/Site: Lake Ralph Hall Supplemental JD	City/County:	_adonia/Fannin	Sampling Date: 6/2/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP134
Investigator(s):	Section, Towr	nship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	concave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	_at: <u>33.4464</u>	Long: <u>-95.99635</u>	Datum: NAD83
Soil Map Unit Name: Normangee Clay Loam, 2 to 5 percent slop	oes, eroded	NWI classifica	ation: none
Are climatic / hydrologic conditions on the site typical for this tin	ne of year? Yes X	No (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrologysign	ificantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil, or Hydrology natu	rally problematic?	(If needed, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map she	owing sampling	point locations, transects,	important features, etc.
Linder hutic Verstetion Descent Que Vers	х		

Hydrophytic Vegetation Present?	Yes <u> </u>	- Is the Sampled Area					
Hydric Soil Present?	Yes NoX	within a Wotland?	Voc	No X			
Wetland Hydrology Present?	Yes NoX		165	NO			
Remarks:							
Heavy storms the previous day; wooded area near North Sulphur River channel							

700 //	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 700 sq ft)	<u>% Cover</u>	Species?	Status	Number of Dominant Species
1. Quercus stellata	80	Yes	FACU	That Are OBL, FACW, or FAC
2				(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata: (B)
	80	= Total Cov	rer	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 25 (A/B)
1. Quercus stellata	20	No	FAC	,
2. Celtis laevigata	15	No	FAC	Prevalence Index worksheet:
3. Symphoricarpos orbiculatus	35	Yes	FACU	Total % Cover of:Multiply by:
⊿ Ulmus crassifolia	10	No		OBL species x 1 =
				FACW species x 2 =
5	80	Tatal Oa		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft		= Total Cov	er	FACU species x 4 =
1 Toxicodendron radicans	15	No	FACU	UPL species $x = $
2 Carex planostachys	40	Yes	UPL	Column Totals: (A) (B)
2. Elymus virginicus	30	Yes	FAC	
				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				\square 2 - Dominance Test is >50%
7				\square 2. Browelence Index is <2.0 ¹
8				\square 3 - Prevalence index is ≤ 3.0
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
AFO og ft	85	= Total Cov	er	
Woody Vine Stratum (Plot size: 450 Sq It)				be present, unless disturbed or problematic.
1				
2	0			Hydrophytic Vegetation
% Bare Ground in Herb Stratum ¹⁵	5	= 1 otal Cov	rer	Present? Yes <u>No X</u>
Remarks:				

Profile Desc	ription: (Describe	to the depth ne	eded to docur	nent the i	ndicator of	or confirm	n the absence of indicators.)	
Depth	Matrix		Redo	x Feature	S			
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type ¹	Loc ²	Texture Remarks	
0-18	10 YR 3/2	100					Clay	
								_
				·				-
				·				—
								_
				·				-
				·				-
·								_
								_
¹ Type: C=Co	oncentration, D=Dep	pletion, RM=Redu	uced Matrix, CS	S=Covered	d or Coate	d Sand Gr	rains. ² Location: PL=Pore Lining, M=Matrix.	
Hydric Soil I	ndicators: (Applic	cable to all LRRs	s, unless other	wise not	ed.)		Indicators for Problematic Hydric Soils ³ :	
Histosol	(A1)		Sandy C	Sleyed Ma	trix (S4)		1 cm Muck (A9) (LRR I, J)	
Histic Ep	ipedon (A2)		Sandy F	, Redox (S5)		Coast Prairie Redox (A16) (LRR F, G, H)	
Black His	stic (A3)		Stripped	Matrix (S	56)		Dark Surface (S7) (LRR G)	
Hydroge	n Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		High Plains Depressions (F16)	
Stratified	Layers (A5) (LRR	F)	Loamy	Gleyed Ma	atrix (F2)		(LRR H outside of MLRA 72 & 73)	
🔲 1 cm Mu	ck (A9) (LRR F, G,	H)	Deplete	d Matrix (I	F3)		Reduced Vertic (F18)	
Depleted	Below Dark Surfac	ce (A11)	Redox [Dark Surfa	ice (F6)		Red Parent Material (TF2)	
🔲 Thick Da	rk Surface (A12)		Deplete	d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)	
🔲 Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Explain in Remarks)	
🔲 2.5 cm N	lucky Peat or Peat	(S2) (LRR G, H)	🔲 High Pla	ains Depre	essions (F	16)	³ Indicators of hydrophytic vegetation and	
🔲 5 cm Mu	cky Peat or Peat (S	3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetland hydrology must be present,	
							unless disturbed or problematic.	
Restrictive L	ayer (if present):							
Туре:								
Depth (inc	ches):						Hydric Soil Present? Yes NoX	-
Remarks:								
No re	dox feat	tures p	resent					

HYDROLOGY

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Surface Soil Cracks (B6)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3)	Drainage Patterns (B10)
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Roots (C3) (where tilled)
Drift Deposits (B3)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes <u>No X</u> Depth (inches):	
Water Table Present? Yes No _X Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): <u>(includes capillary fringe)</u>	Wetland Hydrology Present? Yes No
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspe	ctions), if available:
Remarks:	






Project/Site: Lake Ralph Hall Supplemental JD	City/County	Ladonia/Fannin	Sampling Date: <u>6/2/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP136
Investigator(s): Jason Voight, Andrew Sample	Section, To	wnship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief	(concave, convex, none): Concav	ve Slope (%): 0-1%
Subregion (LRR): <u>Southwest Prairies</u>	Lat: <u>33.45081</u>	Long: <u>-95.98882</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classi	ification: PFO1A
Are climatic / hydrologic conditions on the site typical for th	nis time of year? Yes <u>×</u>	K No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology	significantly disturbed?	Are "Normal Circumstances	" present? Yes X No
Are Vegetation, SoilX, or Hydrology	naturally problematic?	(If needed, explain any answ	wers in Remarks.)
SUMMARY OF FINDINGS – Attach site map	showing samplin	g point locations, transec	ts, important features, etc.
Hydrophytic Vegetation Present? Yes X	No Is th	e Sampled Area	
Hydric Soil Present? Yes	No X with	in a Wetland? Yes	No X
Wetland Hydrology Present? Yes	No X		
Remarks:			
Heavy storms the day before; wooded	area near North	Sulphur River channel	l

rieavy storms the day before, wooded area hear North Sulphur River of

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>700 sq ft</u>)	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata/Quercus muehlenbergii	20/20	Yes/Yes	FAC/FAC	$(\text{excluding FAC-}): \qquad \underline{3} \qquad (A)$
3. Ulmus crassifolia	10	Yes	FAC	Total Number of Dominant
4. Maclura pomifera	10	No	FACU	Species Across All Strata:6 (B)
700 <i>(</i>	90	= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 83.3 (A/B)
1. Celtis laevigata/Quercus muehlenbergii	15/10	No/No	FAC/FAC	Describer on the law works have f
2. Quercus stellata/Cercis canadensis	10/5	No/No	FACU/UPL	Prevalence Index worksheet:
3. Juniperus virginiana	5	No	UPL	Total % Cover of:Multiply by:
4. Ulmus crassifolia	10	No	FAC	OBL species x 1 =
5. Fraxinus pennsylvanica	20	No	FAC	FACW species x 2 =
	75	= Total Cor	/er	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)				FACU species x 4 =
1. Toxicodendron radicans	20	Yes	FACU	UPL species x 5 =
2. Viola missouriensis	5	No	FACW	Column Totals: (A) (B)
3. Elymus virginicus	30	Yes	FAC	
4. Daucus carota	10	No	UPL	Prevalence Index = B/A =
5. Erigeron annuus	5	No	FAC	Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
0				3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10	70			Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft)	70	= Total Cov	/er	¹ Indicators of hydric soil and wetland hydrology must
Parthenocissus guinguefolia	5	No	FACU	be present, unless disturbed or problematic.
1. <u></u>				- Understander
2		Tatal Oa		Hydrophytic Vegetation
% Bare Ground in Herb Stratum ³⁰		= Total Cov	/er	Present? Yes X No
Remarks:				1

Profile Des	cription: (Describe	to the depth ne	eded to docu	ment the i	indicator	or confirn	n the absence of	f indicators.)
Depth	Matrix		Redo	ox Feature	s1		_	_
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100			·		Clay	
					. <u></u>			
					·			
					·			
¹ Type: C=C	oncentration, D=Dep	oletion, RM=Red	uced Matrix, C	S=Covere	d or Coate	ed Sand Gi	rains. ² Locat	tion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRR	s, unless othe	rwise not	ed.)		Indicators for	or Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🛄 1 cm Mu	ick (A9) (LRR I, J)
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Coast Pr	rairie Redox (A16) (LRR F, G, H)
Black H	istic (A3)			d Matrix (S	56)		Dark Sur	rface (S7) (LRR G)
	en Sulfide (A4)			Mucky Mil	neral (F1)		High Pla	Ins Depressions (F16)
		F) H)		Gleyed IVI d Matrix (aunx (F∠) E3)			Nortic (E18)
	d Below Dark Surfac	re (A11)		Dark Surfa	ace (F6)			ent Material (TF2)
	ark Surface (A12)			ed Dark Su	urface (F7))	Verv Sha	allow Dark Surface (TF12)
Sandy N	/ucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (E	xplain in Remarks)
2.5 cm l	Nucky Peat or Peat	(S2) (LRR G, H)	🔲 High Pl	ains Depre	essions (F	16)	³ Indicators of	hydrophytic vegetation and
5 cm M	ucky Peat or Peat (S	3) (LRR F)	(ML	RA 72 &	73 of LRR	H)	wetland h	hydrology must be present,
							unless di	isturbed or problematic.
Restrictive	Layer (if present):							
Туре:								×
Depth (in	ches):						Hydric Soil P	resent? Yes <u>No ^</u>
Remarks:								
No rodov	factures pres	antı Tinn ala		nolly fl		a nation	a ally liated b	warie eeile peturelly derk eeil
no redox	leatures pres	ent, Thin Cla	ay, occasio	many no	Joueu I	s nation	nally listed h	iyunc son, naturany dark son
HYDROLO	GY							
Wetland Hy	drology Indicators							
Primary Indi	cators (minimum of (ne required: ch	ack all that ann	lv)			Secondary	Indicators (minimum of two required)
	Water (A1)	ne required, che		(P11)				20 Soil Crocks (R6)
	vvaler (AT)				A (D12)			ce Soli Clacks (BO)
	ater Table (AZ)			Sulfide O	dor (C1)			ery vegetated Concave Surface (Bo)
	UII (A3) Aarka (B1)				$\frac{1}{2} \frac{1}{2} \frac{1}$			age Fallenis (BTU)
	nd RS (DT)					ing Pooto		
	$\frac{111}{2} \frac{1}{2} $			not tilled)		ing Roots		sh Burrows (C8)
	posits (B3) $(B4)$			of Poduce	d Iron (C/	1)		stion Visible on Aerial Imagery (CQ)
	ac of Clusi (B4)				(C7)	+)		ation visible on Aerial Intagery (C9)
	on Visible on Aorial	Imagany (P7)			(C7)			Noutral Tast (D5)
	Stained Leaves (BQ)	inagery (B7)			illaiks)			Heave Hummocks $(D7)$ (I PP F)
	vations:							
Surface Wat	er Present?	és No	X Denth (in	ches).				
Water Table		(as No	X Depth (in	ches).		-		
Saturation D			X Dopth (in				and Hydrology	Present? Ves No X
(includes ca	pillary fringe)			iches).			and Hydrology i	
Describe Re	corded Data (stream	n gauge, monitor	ing well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Lac	donia/Fannin	Sampling Date: 6/2/2017			
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP138			
Investigator(s): Jason Voight, Andrew Sample	Section, Townsh	nip, Range:				
Landform (hillslope, terrace, etc.): Valley	Local relief (cor	icave, convex, none): Concave	Slope (%): 0-1%			
Subregion (LRR): <u>Southwest Prairies</u> Lat:	33.45169	Long: <u>-95.9761</u>	Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classific	cation: none			
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology significa	antly disturbed?	Are "Normal Circumstances" p	present? Yes X No			
Are Vegetation, SoilX_, or Hydrology naturall	y problematic?	(If needed, explain any answe	rs in Remarks.)			
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.						
Hydrophytic Vegetation Present? Yes No Hydric Soil Present? Yes No Wetland Hydrology Present? Yes No	Is the Sa	mpled Area Wetland? Yes	NoX			

Remarks:

Heavy storms the previous day; wooded area with channel scars; between remnant North Sulphur River channel and current North Sulphur River channel

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	25	Yes	FAC	(excluding FAC-): <u>2</u> (A)
3. Ulmus americana	15	No	FAC	Total Number of Dominant
4. Morus rubra	10	No	FACU	Species Across All Strata: 2 (B)
	80	= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Celtis laevigata	15	No	FAC	
2. Fraxinus pennsylvanica	10	No	FAC	Prevalence Index worksheet:
3. Ulmus americana	10	No	FAC	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
	35	- Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)		- 10101 00		FACU species x 4 =
1. Carex planostachys	15	No	UPL	UPL species x 5 =
2. Ambrosia trifida	5	No	FAC	Column Totals: (A) (B)
3.				
4.				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
7				3 - Prevalence Index is ≤3.0 ¹
9				4 - Morphological Adaptations ¹ (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
450 og ti	20	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq It)				Indicators of hydric soil and wetland hydrology must
1			. <u> </u>	
2				Hydrophytic
% Bare Ground in Herb Stratum 80	0	= Total Cov	/er	Present? Yes X No
Remarks:				·

Depth	Matrix		Red	ox Features	;			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100					Clay	
Type: C=C	Concentration. D=Der	letion. RM=R	educed Matrix. C	S=Covered	or Coate	d Sand G	rains. ² Locati	ion: PL=Pore Lining. M=Matrix.
lydric Soil	Indicators: (Applic	able to all LF	Rs, unless othe	erwise note	ed.)		Indicators fo	r Problematic Hydric Soils ³ :
- Histoso	ol (A1)		Sandv	Gleved Mat	trix (S4)		🗌 1 cm Muo	ck (A9) (LRR I. J)
Histic E	Epipedon (A2)		Sandy	Redox (S5))		Coast Pra	airie Redox (A16) (LRR F, G, H)
Black H	listic (A3)		Strippe	ed Matrix (S	6)		Dark Sur	face (S7) (LRR G)
Hydrog	en Sulfide (A4)		Loamy	Mucky Min	eral (F1)		🔲 High Plai	ns Depressions (F16)
Stratifie	ed Layers (A5) (LRR	F)	Loamy	Gleyed Ma	trix (F2)		(LRR	Houtside of MLRA 72 & 73)
1 cm M	uck (A9) (LRR F, G,	H)	Deplet	ed Matrix (F	3)		Reduced	Vertic (F18)
Deplete	ed Below Dark Surfac	e (A11)	Redox	Dark Surfac	ce (F6)		Red Pare	ent Material (TF2)
Thick D	Oark Surface (A12)		Deplet	ed Dark Sur	rface (F7)		Very Sha	llow Dark Surface (TF12)
Sandy	Mucky Mineral (S1)			Depression	is (F8)		Other (E>	plain in Remarks)
2.5 cm	Mucky Peat or Peat ((S2) (LRR G, I	H) 🛄 High P	Plains Depre	ssions (F	16)	Indicators of	hydrophytic vegetation and
5 cm M	lucky Peat or Peat (S	3) (LRR F)	(M)	LRA 72 & 7	3 of LRR	H)	wetland h	lydrology must be present,
	1 (<i>it</i> ()						unless di	sturbed or problematic.
Restrictive	Layer (if present):							
Туре:								v
Type: Depth (ir	nches):		_				Hydric Soil Pr	resent? Yes No X
Type: Depth (ir Remarks:	nches):		_				Hydric Soil Pr	resent? Yes <u>No X</u>
Type: Depth (ir Remarks:	nches):						Hydric Soil Pr	resent? Yes <u>No X</u>
Type: Depth (ir Remarks: Earthworm	nches): ns present; No red	lox features	 present; Tinn	clay, occa	sionally	[,] flooded	Hydric Soil Pr	resent? Yes <u>No X</u> ted hydric soil; naturally dark s
Type: Depth (ir Remarks:	nches):	lox features	 present; Tinn	clay, occa	sionally	[,] flooded	Hydric Soil Pr	resent? Yes <u>No X</u> ted hydric soil; naturally dark s
Type: Depth (ir Remarks: arthworm	nches): ns present; No red DGY	lox features	present; Tinn	clay, occa	sionally	flooded	Hydric Soil Pr	resent? Yes <u>No X</u> ted hydric soil; naturally dark s
Type: Depth (ir Remarks: Carthworm YDROLO	nches): ns present; No red DGY ydrology Indicators:	lox features	 present; Tinn	clay, occa	sionally	flooded	Hydric Soil Pr	resent? Yes <u>No X</u> ted hydric soil; naturally dark s
Type: Depth (ir Remarks: arthworm YDROLC Wetland Hy Primary Ind	nches): ns present; No red DGY /drology Indicators: icators (minimum of c	lox features	present; Tinn	clay, occa	isionally	flooded	Hydric Soil Pr is nationally lis Secondary	resent? Yes <u>No X</u> ted hydric soil; naturally dark s
Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind Surface	nches): ns present; No red OGY ydrology Indicators: icators (minimum of c e Water (A1)	lox features	present; Tinn	clay, occa	asionally	flooded	Hydric Soil Pr is nationally lis Secondary Surfac	ted hydric soil; naturally dark s
Type: Depth (ir Remarks: Earthworm YDROLC Vetland Hy Primary Ind Surface High W	nches): ns present; No red DGY vdrology Indicators: icators (minimum of c e Water (A1) later Table (A2)	lox features	present; Tinn <u>check all that app</u> Salt Crus	clay, occa bly) tt (B11) nvertebrates	s (B13)	flooded	Hydric Soil Pr is nationally lis Secondary Surfac	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8
Type: Depth (ir Remarks: arthworm YDROLC YDROLC Vetland Hy Primary Ind Gurface High W Saturat	nches): ns present; No red OGY vdrology Indicators: icators (minimum of c e Water (A1) /ater Table (A2) ion (A3)	lox features	present; Tinn <u>check all that app</u> Salt Crus Aquatic II Hydroger	clay, occa bly) bt (B11) nvertebrates n Sulfide Od	asionally s (B13) lor (C1)	flooded	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10)
Type: Depth (ir Remarks: Carthworm YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N	nches): ns present; No red DGY ydrology Indicators: icators (minimum of c e Water (A1) 'ater Table (A2) ion (A3) Marks (B1)	lox features	present; Tinn check all that app Salt Crus Aquatic II Hydroger Dry-Seas	clay, occa bly) tt (B11) nvertebrates n Sulfide Od son Water Ta	s (B13) lor (C1) able (C2)	^r flooded	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C
Type: Depth (ir Remarks: Farthworm YDROLC Vetland Hy Primary Ind Saturat High W Saturat Water I Sedime	nches): ns present; No red DGY ydrology Indicators: icators (minimum of c Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2)	lox features	present; Tinn	clay, occa bly) tt (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher	s (B13) lor (C1) able (C2) es on Livi	flooded	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled)
Type: Depth (ir Remarks: Carthworm YDROLC Vetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co e Water (A1) dater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3)	lox features	check all that app Check all that app Salt Crus Aquatic In Hydroger Dry-Seas Oxidized (where	clay, occa bly) it (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled)	s (B13) lor (C1) able (C2) es on Livi	flooded	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8)
Type: Depth (ir Remarks: Earthworm YDROLO Wetland Hy Primary Ind Burface High W Saturat Water N Sedime Drift De Algal M	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co e Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4)	lox features	check all that app Check all that app Salt Crus Aquatic II Hydroger Dry-Seas Oxidized (where Presence	clay, occa bly) st (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced	s (B13) lor (C1) able (C2) es on Livi d Iron (C4	flooded	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9)
Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind High W Saturat Water N Sedime Drift De Algal M Iron De	nches): ns present; No red DGY vdrology Indicators: icators (minimum of c e Water (A1) later Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5)	lox features	check all that app Salt Crus Salt Crus Aquatic II Hydroger Dry-Seas Oxidized (where Presence Thin Muc	clay, occa bly) st (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher a not tilled) of Reduced sk Surface (0	s (B13) (B13) (or (C1) able (C2) es on Livi d Iron (C4 C7)	flooded ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe Satura Geomo	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2)
Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat	nches): ns present; No red DGY vdrology Indicators: icators (minimum of c e Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial	lox features	present; Tinn	clay, occa bly) hvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced k Surface ((kplain in Rer	s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	flooded ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Saurfac Draina Oxidize (C3) (whe Satura Geomo	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5)
Type: Depth (ir Remarks: arthworm YDROLC YDROLC Wetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9)	lox features	present; Tinn	clay, occa bly) tt (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced ck Surface (C kplain in Rer	s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	flooded ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Saurfac Draina Oxidize (C3) (whe Satura Geomo FAC-N Frost-H	ted hydric soil; naturally dark s Indicators (minimum of two required e Soil Cracks (B6) ely Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (Core tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F)
Type: Depth (ir Remarks: arthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations:	lox features	present; Tinn	clay, occa bly) tt (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced k Surface ((kplain in Rer	s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe Crayfis Satura Geomo FAC-N Frost-F	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F)
Type: Depth (ir Remarks: arthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Saturat Drift De Algal M Iron De Inundat Water-S Field Obse Surface Wa	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co e Water (A1) dater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: tter Present?	lox features	present; Tinn	clay, occa bly) it (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced ck Surface (C cplain in Rer	s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe Crayfis Satura Geomo FAC-N Frost-H	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F)
Type: Depth (ir Remarks: arthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Saturat Drift De Algal M Iron De Inundat Water-S Field Obse Surface Wa	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co e Water (A1) dater Table (A2) ion (A3) Warks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: tter Present?	lox features	present; Tinn	clay, occa bly) ti (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher a not tilled) e of Reduced ck Surface ((kplain in Rer nches): nches):	s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe Crayfis Satura Geomo FAC-N Frost-H	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F)
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Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Sedime Drift De Algal M Iron De Inundat Water -S Field Obse Surface Wa Water Table Saturation F	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: tter Present? Y e Present? Y epillary fringe)	lox features	present; Tinn	clay, occa bly) t (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) of Reduced k Surface (C kplain in Rer nches): nches):	asionally s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Sparse Draina Oxidize (C3) (whe Crayfis Satura Geomo FAC-N Frost-h	resent? Yes NoX ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) bly Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F)
Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water S Surface Wa Water Table Saturation F (includes ca Describe Re	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: tter Present? Y e Present? Y epillary fringe) ecorded Data (stream	lox features one required; of Imagery (B7) (es No (es No of gauge, monit	present; Tinn	clay, occa bly) t (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced k Surface ((kplain in Rer nches): nches): nches): I photos, pre	asionally s (B13) lor (C1) able (C2) es on Liv d Iron (C4 C7) marks) evious ins	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Satura Crayfis Satura Geomo FAC-N Frost-H	ted hydric soil; naturally dark s Indicators (minimum of two require e Soil Cracks (B6) ely Vegetated Concave Surface (B8 ge Patterns (B10) ed Rhizospheres on Living Roots (C ere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F) Present? Yes NoX
Type: Depth (ir Remarks: arthworm YDROLC Vetland Hy Primary Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundat Water-S Surface Wa Vater Table Saturation F includes ca Describe Re	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co Water (A1) 'ater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) lat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Y Present? Y eposits (B1) control (B4) posits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Y eposent? Y eposits (B1) control (B4) posits (B2) posits (B2) posits (B3) lat or Crust (B4) eposits (B3) lat or Crust (B4) eposits (B2) posits (B3) lat or Crust (B4) eposits (B2) posits (B3) lat or Crust (B4) eposits	lox features	present; Tinn	clay, occa bly) t (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher not tilled) e of Reduced k Surface (C kplain in Rer nches): nches): I photos, pres	asionally s (B13) lor (C1) able (C2) es on Livi d Iron (C4 C7) marks)	ing Roots	Hydric Soil Pr is nationally lis Secondary Surfac Saufac Draina Oxidize (C3) (whe Geome FAC-N Frost-H and Hydrology F	ted hydric soil; naturally dark s Indicators (minimum of two required e Soil Cracks (B6) ely Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (Core tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F) Present? Yes NoX
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Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fann	in	Sampling Date: 6/2/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP139
Investigator(s):	Section, Township, Range		
Landform (hillslope, terrace, etc.): Valley	_ Local relief (concave, conv	vex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u>	.45247 Lo	ng: <u>-95.97617</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classific	ation: none
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	/ disturbed? Are "Nor	mal Circumstances" p	resent? Yes X No
Are Vegetation, SoilX, or Hydrology naturally pr	oblematic? (If neede	d, explain any answei	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loca	tions, transects	, important features, etc.

Hydrophytic Vegetation Present?	Yes X No	Is the Sampled Area		
Hydric Soil Present?	Yes X No	within a Wetland?	Ves X	No
Wetland Hydrology Present?	Yes X No		165	NO
Remarks:		<u>.</u>		

Heavy storms the previous day; depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700 (1	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 700 sq ft)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	10	No	FAC	(excluding FAC-): (A)
3. Ulmus americana	20	Yes	FAC	Total Number of Dominant
4				Species Across All Strata: 2 (B)
	60	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC:(A/B)
1. Celtis laevigata	10	No	FAC	
2. Fraxinus pennsylvanica	15	No	FAC	Prevalence Index worksheet:
3. Ulmus americana	10	No	FAC	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···	35	- Total Ca		FAC species x 3 =
Herb Stratum (Plot size: ⁴⁵⁰ sq ft)		- 10181 001		FACU species x 4 =
1. Carex blanda	5	No	FAC	UPL species x 5 =
2 Ambrosia trifida	10	No	FAC	Column Totals: (A) (B)
3 Torilis arvensis	5	No	UPL	()
A.				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				✓ 2 - Dominance Test is >50%
7				3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
450 #	20	= Total Cov	ver	
Woody Vine Stratum (Plot size: 450 sq ft)				Indicators of hydric soil and wetland hydrology must
1				be present, unless disturbed of problematic.
2				Hydrophytic
20	0	= Total Cov	ver	Vegetation Present? Yes X No
% Bare Ground in Herb Stratum 80				
Remarks:				

Profile Desc	cription: (Describe	to the de	pth needed to docu	ment the	indicator	or confir	m the absence	e of indicators.)
Depth (in shas)	Matrix	0/	Rede	ox Feature	es Turr e ¹	1 2		Demodue
(Incnes)	Color (moist)	%	Color (moist)	%	Type	LOC	l exture	<u> </u>
								Organic Matter
1-18	10 YR 2/1	95	10 YR 4/6	5	<u> </u>	M	Clay	
		_						
·								
¹ Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covere	ed or Coate	d Sand G	Grains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applie	cable to al	I LRRs, unless othe	erwise no	ted.)		Indicators	s for Problematic Hydric Soils ³ :
	(A1)		Sandy	Gleyed M	atrix (S4)			Muck (A9) (LRR I, J)
	pipedon (A2)		Sandy	Redox (S	5) SC)			: Prairie Redox (A16) (LRR F, G, H)
	n Sulfide (A4)			Mucky M	50) ineral (F1)			Plains Depressions (E16)
	d Lavers (A5) (LRR	F)		Gleved M	latrix (F2)		LI (LI	RR H outside of MLRA 72 & 73)
🔲 1 cm Mu	uck (A9) (LRR F, G,	H)	Deplete	ed Matrix	(F3)		Reduc	ced Vertic (F18)
Deplete	d Below Dark Surfac	ce (A11)	Redox	Dark Surf	ace (F6)		Red F	Parent Material (TF2)
Thick Da	ark Surface (A12)			ed Dark S	urface (F7)			Shallow Dark Surface (TF12)
Sandy N	Aucky Mineral (S1)			Depressio	ons (F8)	10)	Other	(Explain in Remarks)
	viucky Peat of Peat	(52) (LRR 33) (I RR F		RA 72 &	73 of I RR	H)	Indicators	of hydrophytic vegetation and
			/			•••	unless	s disturbed or problematic.
Restrictive	Layer (if present):							•
Туре:								
Depth (in	ches):						Hydric Soi	I Present? Yes <u>X</u> No
Remarks:								
Redox fe	atures preser	nt; Tinn	clay, occasion	ally flo	oded is	natior	nally listed	hydric soil; naturally dark soil
	CV							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one require	ed; check all that app	ly)			<u>Second</u>	ary Indicators (minimum of two required)
	Water (A1)		Salt Crus	t (B11)				face Soil Cracks (B6)
	ater Table (A2)		Aquatic Ir	vertebrat	es (B13)			arsely Vegetated Concave Surface (B8)
	on (A3)			Suifide C	Daor (C1)			anage Patterns (B10)
	arks (B1)			on water Phizooph	Table (C2)	na Pooto		dized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rnizosph	eres on Livi	ng Roots	(03) (1)	where tilled)
	posits (B3)		(wnere	not tilled) ad Inan (C.4			ayrish Burrows (C8)
	at or Crust (B4)			of Reduc	(CZ)	•)		curation visible on Aerial Imagery (C9)
	DOSIIS (B5)	Imagan (k Surrace	(C7)			C Neutral Test (D5)
		imagery (piain in R	emarks)			C-Neutral Test (D5)
	vations:							
Surface Wat	er Present?	Voc	No X Depth (ir	ches).				
Mator Table	Procent?	Voc	No X Depth (ir	iches).		-		
Soturation D		Voo	No X Depth (ir	(ches).			tland Hydrolog	w Prosent? Vas X No
(includes cap	pillary fringe)	165	No Deptil (ii	iches).				
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, p	revious ins	pections)), if available:	
Remarks:								







Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannir	1	Sampling Date: 6/1/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP162
Investigator(s):	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conve	ex, none): <u>Concave</u>	Slope (%): 0-1%
Subregion (LRR): Southwest Prairies Lat: 33	.45353 Lor	ıg: <u>-95.97792</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	ation: none
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	_ (If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "Norm	al Circumstances" pr	resent? Yes X No
Are Vegetation, Soil _X, or Hydrology naturally pr	oblematic? (If needed	, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locat	ions, transects,	important features, etc.

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No <u>X</u>	within a Wetland?	Ves	No X
Wetland Hydrology Present?	Yes X	No		103	NO
Remarks:			•		

depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Fraxinus pennsylvanica	10	No	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	20	Yes	FAC	(excluding FAC-): (A)
3. Ulmus crassifolia	50	Yes	FAC	Total Number of Dominant
4				Species Across All Strata: 2 (B)
	70	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Celtis laevigata	10	No	FAC	
2. Ulmus crassifolia	10	No	FAC	Prevalence Index worksheet:
3. Ilex decidua	10	No	FAC	Total % Cover of: Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
	35	- Total Cav		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)		= 10(a) 000	ei	FACU species x 4 =
1. Elymus virginicus	3	No	FAC	UPL species x 5 =
2 Viola missouriensis	5	No	FACW	Column Totals: (A) (B)
3. Torilis arvensis	5	No	UPL	
4. Ambrosia trifida	2	No	FAC	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
				✓ 2 - Dominance Test is >50%
7		<u> </u>		\square 3 - Prevalence Index is ≤3.0 ¹
8				4 - Morphological Adaptations ¹ (Provide supporting
9		<u> </u>		data in Remarks or on a separate sheet)
10	45			Problematic Hydrophytic Vegetation ¹ (Explain)
Weedy Vine Stratum (Plat aize: 450 S0 ft)	15	= Total Cov	er	¹ Indicators of hydric soil and wetland hydrology must
Toxicodendron radicans	З	No	FACU	be present, unless disturbed or problematic.
Smiley bong nov/Compsis radicans		No	FACILIEACI	
2. Similar bolia-hox/campsis radicans		110		Hydrophytic
% Bare Ground in Herb Stratum ⁸⁵	0	= Total Cov	er	Present? Yes X No
Remarks:				

	Matrix		Redo	x Features		_		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype ¹ Loc ²	Texture	Rema	rks
0-4							Organic Matter	
4-18	10 YR 2/1	100				Clay		
				· ·	·			
				·				
				·				
T			advised Matrix CC					- NA NAstria
Type: C=C Hvdric Soil	Indicators: (Applic	able to all LF	RRs. unless other	wise noted.		Indicators	s for Problematic Hv	ig, M=Matrix. dric Soils ³ :
	(A1)		Sandy (Gleved Matrix	(S4)		Muck (A9) (LRR I. J)	
Histic E	pipedon (A2)		Sandy F	Redox (S5)			t Prairie Redox (A16) (LRR F. G. H)
Black H	istic (A3)			Matrix (S6)		Dark	Surface (S7) (LRR G)	,,,,
 Hydroge	en Sulfide (A4)		Loamy I	Mucky Minera	al (F1)	🔲 High I	Plains Depressions (F	16)
Stratifie	d Layers (A5) (LRR I	F)	Loamy (Gleyed Matrix	(F2)	(L	RR H outside of MLR	A 72 & 73)
1 cm Mi	uck (A9) (LRR F, G,	H)	Deplete	d Matrix (F3)		🔲 Redu	ced Vertic (F18)	
Deplete	d Below Dark Surfac	e (A11)	Redox [Dark Surface	(F6)	Red F	Parent Material (TF2)	
Thick D	ark Surface (A12)		Deplete	d Dark Surfa	ce (F7)	Very :	Shallow Dark Surface	(TF12)
Sandy N	Aucky Mineral (S1)			Depressions	(F8)	U Other	(Explain in Remarks)	
2.5 cm l	Mucky Peat or Peat ((S2) (LRR G , I	H) L High Pla	ains Depressi	ons (F16)	Indicators	s of hydrophytic vegeta	ation and
5 cm Mu	ucky Peat or Peat (S	3) (LRR F)	(ML	RA 72 & 73 (of LRR H)	wetlar	nd hydrology must be p	oresent,
						unies	s disturbed or problem	atic.
Restrictive	i aver ut presenti.							
Restrictive	Layer (if present):							
Restrictive Type: Depth (in	ches):		_			Hvdric Soi	il Present? Yes	No X
Restrictive Type: Depth (in Remarks:	ches):		_			Hydric Soi	il Present? Yes	NoX
Restrictive Type: Depth (in Remarks:	ches):					Hydric Soi	il Present? Yes	NoX
Restrictive Type: Depth (in Remarks: No redox	ches):	nn clay, c	 occasionally	flooded	is nationa	Hydric Soi	il Present? Yes ydric soil; natu	<u>∾_ ×</u> rally dark so
Restrictive Type: Depth (in Remarks: No redo:	ches):	nn clay, c	 occasionally	flooded	is nationa	Hydric Soi	il Present? Yes ydric soil; natu	× rally dark so
Restrictive Type: Depth (in Remarks: No redo: YDROLO	ches): x features; Tir	nn clay, c	occasionally	flooded	is nationa	Hydric Soi	il Present? Yes ydric soil; natu	_{№ _} X
Restrictive Type: Depth (in Remarks: No redo: YDROLO Wetland Hy Primary Indi	ches): ches): x features; Tir GY drology Indicators:	nn clay, c		flooded	is nationa	Hydric Soi	Il Present? Yes ydric soil; natu	<u>No X</u> rally dark so
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indii	ches): ches): x features; Tir GY drology Indicators: cators (minimum of c	nn clay, c			is nationa	Hydric Soi	il Present? Yes ydric soil; natul lary Indicators (minimu	<u>No</u> X rally dark so
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary India Surface	ches): ches): x features; Tir Gay drology Indicators: cators (minimum of c Water (A1)	nn clay, c	check all that appl	flooded	is nationa	Hydric Soi	il Present? Yes ydric soil; natul lary Indicators (minimu rface Soil Cracks (B6)	<u>No X</u> rally dark so
Restrictive Type: Depth (in Remarks: No redo: YDROLO Wetland Hy Primary IndiiSurfaceHigh Wa	ches): x features; Tir GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2)	nn clay, c	check all that appl	flooded		Hydric Soi	Il Present? Yes ydric soil; natul lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc	<u>No X</u> rally dark so m of two required) ave Surface (B8)
Restrictive Type: Depth (in Remarks: No redo: YDROLO Wetland Hy Primary Indi Surface High Wa Saturati X Watar A	ches): ches): x features; Tir GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) tester (A1)	nn clay, c	check all that appl Salt Crust	flooded y) (B11) vertebrates (I Sulfide Odor	is nationa 313) (C1)	Hydric Soi	Il Present? Yes ydric soil; natur dary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10)	<u>No</u> X rally dark so m of two required) ave Surface (B8)
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indii Surface High Wa Saturati Vater M	ches): ches): x features; Tir GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) farks (B1)	nn clay, c	check all that appl Check all that appl Salt Crust Aquatic Im Hydrogen	flooded () (B11) vertebrates (E Sulfide Odor n Water Tab	is nationa 313) (C1) le (C2)	Hydric Soi	Il Present? Yes ydric soil; natur lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres o	No X rally dark so um of two required) cave Surface (B8) n Living Roots (C3
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indii Surface High Wa Saturati Water M Sedimee Dette Dette Dette Dette	ches): ches): x features; Tir GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	nn clay, c	check all that appl Check all that appl Salt Crust Aquatic Inv Hydrogen Dry-Seasc Oxidized F	flooded y) (B11) vertebrates (E Sulfide Odor n Water Tab thizospheres	is nationa 313) (C1) le (C2) on Living Roo	Hydric Soi	Il Present? Yes ydric soil; natur lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres of where tilled)	No X rally dark so m of two required) cave Surface (B8) n Living Roots (C3
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indii Surface High Wa Saturati Water M Sedime: Drift Dei	ches): ches): x features; Tir ogy drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3)	nn clay, c	check all that appl Check all that appl Salt Crust Aquatic Im Hydrogen Dry-Seaso Oxidized F (where r	flooded y) (B11) vertebrates (E Sulfide Odor n Water Tab chizospheres not tilled)	is nationa 313) (C1) le (C2) on Living Roo	Hydric Soi	Il Present? Yes ydric soil; natul lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres o where tilled) ayfish Burrows (C8)	No X rally dark so m of two required) ave Surface (B8) n Living Roots (C3
Restrictive Type: Depth (in Remarks: NO redox YDROLO Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma	ches): ches): x features; Tir GGY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) farks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	nn clay, c	check all that appl check all that appl Salt Crust Aquatic Inv Hydrogen Dry-Seasc Oxidized F (where in Presence	flooded (B11) vertebrates (E Sulfide Odor n Water Tab chizospheres not tilled) of Reduced In	is nationa 313) (C1) e (C2) on Living Roo ron (C4)	Hydric Soi Hydric Soi Second Spi Spi Spi Spi Spi Spi Spi Spi Spi Spi	A Present? Yes ydric soil; nature ary Indicators (minimul rface Soil Cracks (B6) arsely Vegetated Conce ainage Patterns (B10) idized Rhizospheres of where tilled) ayfish Burrows (C8) turation Visible on Aeri	<u>No X</u> rally dark so m of two required) cave Surface (B8) n Living Roots (C3
Restrictive Type: Depth (in Remarks: NO redox YDROLO Wetland Hy Primary India Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De;	ches): ches): x features; Tir GGY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	nn clay, c	check all that appl check all that appl Salt Crust Aquatic Inv Hydrogen Dry-Seasc Oxidized F (where r Presence of Thin Muck	flooded (B11) vertebrates (I Sulfide Odor n Water Tab chizospheres not tilled) of Reduced In Surface (C7	is nationa 313) (C1) le (C2) on Living Roo ron (C4)	Hydric Soi Hydric Soi Second Su Sp Su Sp ts (C3) (1 Cra Sa Ge	A present? Yes ydric soil; natur dary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres o where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2	No X rally dark so m of two required) ave Surface (B8) n Living Roots (C3 al Imagery (C9)
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron De Inundati	Layer (if present): ches):	nn clay, c	Check all that appl Check all that appl Salt Crust Aquatic Im Hydrogen Dry-Seaso Oxidized F (where in Presence of Thin Muck Other (Exp	flooded (B11) vertebrates (I Sulfide Odor n Water Tab Rhizospheres not tilled) of Reduced In Surface (C7)	is nationa 313) (C1) le (C2) on Living Roo ron (C4)) rks)	Hydric Soi Hydric Soi Second Su Su Sp Dra Su Dra Su Cra Sa Ge FA	Il Present? Yes ydric soil; natul dary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres of where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2 C-Neutral Test (D5)	No X rally dark so m of two required cave Surface (B8) n Living Roots (C3 al Imagery (C9)
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary India Gurface High Wa Saturati Water M Sedimer Inundati Water-S Eicld Obcom	Layer (if present): ches):	nn clay, c	check all that appl Check all that appl Salt Crust Aquatic Inv Hydrogen Dry-Seasc Oxidized F (where r Presence of Thin Muck Other (Exp	flooded (B11) vertebrates (E Sulfide Odor n Water Tab chizospheres not tilled) of Reduced In Surface (C7 olain in Rema	is nationa 313) (C1) le (C2) on Living Roo ron (C4)) rks)	Hydric Soi Ally listed hy Second Su Su Sp Su Su Su Su Su Su Su Su Su Su Su Su Su	Il Present? Yes ydric soil; natur lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres of where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2 C-Neutral Test (D5) ost-Heave Hummocks of	No X rally dark so m of two required) cave Surface (B8) n Living Roots (C3 al Imagery (C9)) (D7) (LRR F)
Restrictive Type: Depth (in Remarks: No redo: YDROLO Wetland Hy Primary Indii Surface High Wa Saturati Water M Guide Saturati High Wa Sedimee Drift Deg Inundati Water-S Field Obser	ches): ches): x features; Tir GY drology Indicators: cators (minimum of c Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial I Stained Leaves (B9) vations: ter Present?	Imagery (B7)	check all that appl check all that appl Salt Crust Aquatic Inv Hydrogen Dry-Seasc Oxidized F (where r Presence of Thin Muck Other (Exp	flooded (B11) vertebrates (f Sulfide Odor n Water Tab chizospheres not tilled) of Reduced In Surface (C7 plain in Rema	is nationa 313) (C1) le (C2) on Living Roo ron (C4)) rks)	Hydric Soi Illy listed hy Second Su Sp Su Sp Su Sp Su Su Su Su Su Su Su Su Su Su Su Su Su	A greater and a constraint of the second state	No X rally dark so m of two required) ave Surface (B8) n Living Roots (C3 al Imagery (C9)) (D7) (LRR F)
Restrictive Type: Depth (in Remarks: NO redox YDROLO Wetland Hy Primary India Surface High Wa Saturati Water N Sedime Inon Dep Inundati Water-S Field Obser	Layer (if present): ches):	Imagery (B7)	Check all that appl Check all that appl Salt Crust Aquatic Inv Aquatic Inv Aquatic Inv Ory-Seaso Oxidized F (where r Presence o Thin Muck Other (Exp X Depth (inv X Depth (inv	flooded (B11) (B11) vertebrates (I Sulfide Odor n Water Tab (hizospheres not tilled) of Reduced In Surface (C7) olain in Rema	is nationa 313) (C1) le (C2) on Living Roo ron (C4)) rks)	Hydric Soi Illy listed hy Second Su Su Su Dra Dra Su Cra Sa Ge FA Fro	Il Present? Yes ydric soil; natur dary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres or where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2 C-Neutral Test (D5) ost-Heave Hummocks of	No X rally dark so am of two required) cave Surface (B8) n Living Roots (C3 al Imagery (C9)) (D7) (LRR F)
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Wetland Hy Primary Indi U Surface High Wa Saturati Water N Sedime U Drift De Algal Ma Iron De Inundati Water-S Field Obser Surface Wate Water Table	Layer (if present): ches): ches): x features; Tir GY drology Indicators: cators (minimum of control of con	Imagery (B7)	Check all that appl Check all that appl Check all that appl Salt Crust Aquatic Im Aquatic Im Dry-Seasc Oxidized F (where I Presence I Thin Muck Other (Exp X Depth (in X Dept	flooded (B11) (B11) vertebrates (E Sulfide Odor n Water Tab (hizospheres not tilled) of Reduced In Surface (C7) plain in Rema	is nationa 313) (C1) le (C2) on Living Roo ron (C4)) rks)	Hydric Soi Ally listed hy Second Su Su Su Su Su Su Su Su Su Su Su Su Su	Il Present? Yes ydric soil; natur lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres of where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2 C-Neutral Test (D5) ost-Heave Hummocks of	No X rally dark so m of two required) cave Surface (B8) n Living Roots (C3 al Imagery (C9)) (D7) (LRR F)
Restrictive Type: Depth (in Remarks: NO redo: YDROLO Vetland Hy Primary India Surface High Wa Saturati Orift De Algal Ma Iron De Inundati Water-S Field Obser Surface Wat Nater Table Saturation P includes cat	Layer (if present): ches):	Imagery (B7) 'es No 'es No 'es No	Check all that appl Check all that appl Check all that appl Salt Crust Aquatic Im Aquatic Im Dry-Seasc Oxidized F (where I Presence C Thin Muck Other (Exp X Depth (inc X	flooded (b) (B11) vertebrates (B Sulfide Odor n Water Tab Sulfide Odor n Water Tab Sulfide Odor n Water Tab Sulfide Odor n Water Tab Sulfide Odor n Water Cab Sulfide Odor n Water Tab Sulfide Odor n Water Cab Sulfide Odor n Water Cab Sulfide Odor n Water Cab Sulfide Odor (C7) Sulfide (C7) (C7) Sulfide (C7) (C	is nationa 313) (C1) le (C2) on Living Roo ron (C4) rks) we	Hydric Soi Hydric Soi Second Su Su Su Su Su Su Su Su Su Su Su Su Su	Il Present? Yes ydric soil; natur lary Indicators (minimu rface Soil Cracks (B6) arsely Vegetated Conc ainage Patterns (B10) idized Rhizospheres of where tilled) ayfish Burrows (C8) turation Visible on Aeri omorphic Position (D2 C-Neutral Test (D5) ost-Heave Hummocks of gy Present? Yes	No X rally dark so m of two required cave Surface (B8) n Living Roots (C3 al Imagery (C9)) (D7) (LRR F)





Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin		Sampling Date: 6/1/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP216
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conve	x, none): <u>Concave</u>	Slope (%): 0-1%
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33.</u>	45383 Lon	g: <u>-95.9779</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	ation: none
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Norm	al Circumstances" p	resent? Yes X No
Are Vegetation, Soil X, or Hydrology naturally pro	oblematic? (If needed	, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point locat	ions, transects,	important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X Yes X	No No	Is the Sampled Area	Xaa X	No
Wetland Hydrology Present?	Yes X	No	within a wetiand?	res <u> </u>	NO
Remarks:					

depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700 (1	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	20	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	35	Yes	FAC	(excluding FAC-): (A)
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Dominant
4				Species Across All Strata:3 (B)
	75	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Celtis laevigata	10	No	FAC	
2. Ulmus crassifolia	5	No	FAC	Prevalence Index worksheet:
3. Fraxinus pennsylvanica	10	No	FAC	Total % Cover of:Multiply by:
4. Styphnolobium affine	5	No	UPL	OBL species x 1 =
5				FACW species x 2 =
3	30	Total Car		FAC species x 3 =
Herb Stratum (Plot size: ⁴⁵⁰ sq ft)			er	FACU species x 4 =
1. Elymus virginicus	3	No	FAC	UPL species x 5 =
2. Toxicodendron radicans	5	No	FACU	Column Totals: (A) (B)
3 Lolium perenne	2	No	FACU	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
o				✓ 2 - Dominance Test is >50%
/				\square 3 - Prevalence Index is $\leq 3.0^1$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
150 sq.ft	10	= Total Cov	er	¹ Indicators of hudrin only and wetlend hudrals as any st
<u>Woody Vine Stratum</u> (Plot size: <u>400 34 ft</u>)	F	No	EACU	be present, unless disturbed or problematic.
1. Toxicodendron radicans	<u>5</u>			
2. Partnenocissus quinquerolla		INO	FACU	Hydrophytic
90 D	10	= Total Cov	er	Present? Yes X No
% Bare Ground in Herb Stratum				
REMAINS				

(inches)	Color (moiot)	0/	Color (moiot)		<u>S</u> Tuno ¹	lcc^2	Toxturo	Pomorko
(inches) 0-1		%		%	Type	LOC	Texture	Organic Matter
1.2	10 VP 2/1	05	10 VP 4/6			N.4	Clay	Bodov in upper pertions
1-3	10 FR 2/1	95	10 TK 4/0	5		IVI	Clay	Redox in upper portions
3-18	10 YR 2/1	100						
					<u> </u>			
							. 2.	
Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Lo	cation: PL=Pore Lining, M=Matrix.
					eu.)			
	(AT) Dipedon (A2)		Sandy	Gleyeu Ma Redox (S5))			Prairie Redox (A16) (IRR F G H)
Black Hi	stic (A3)			d Matrix (S) 66)		Dark S	Surface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy	Mucky Min	neral (F1)		High I	Plains Depressions (F16)
Stratified	d Layers (A5) (LRR	F)	Loamy	Gleyed Ma	atrix (F2)		(LI	RR H outside of MLRA 72 & 73)
📕 1 cm Mւ	uck (A9) (LRR F, G	, H)		ed Matrix (F	=3)		Reduc	ced Vertic (F18)
	d Below Dark Surfa	ce (A11)	Redox	Dark Surfa	ice (F6)			Parent Material (TF2)
	ark Sufface (A12)			ed Dark Su	rface (F7)			Shallow Dark Surface (TF12)
	Mucky Peat or Peat	(S2) (I RR		ains Depre	essions (F	16)	³ Indicators	of hydrophytic vegetation and
5 cm Μι	icky Peat or Peat ((02) (LRR F) (M I	RA 72 & 7	73 of LRR	H)	wetlar	nd hydrology must be present,
	,	, , , , ,	, , , , , , , , , , , , , , , , , , ,			,	unless	s disturbed or problematic.
Octrictivo	over (if present).							
lesu icuve	Layer (if present):							
Type:	Layer (if present):							X
Type: Depth (in	ches):						Hydric Soi	I Present? Yes X No
Type: Depth (in Remarks:	ches):						Hydric Soi	I Present? Yes X No
Type: Depth (in Remarks:	ches):						Hydric Soi	I Present? Yes X No
Type: Depth (in Remarks: Redox fe	ches):	nt ; Tinn	clay, occasior	nally floo	oded is	natior	Hydric Soi ally listed	I Present? Yes X No
Type: Depth (in lemarks: ledox fe	atures preser	nt ; Tinn	clay, occasior	ally floo	oded is	natior	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so
Type: Depth (in Remarks: Redox fe YDROLO Vetland Hy	ches): atures preser GY drology Indicators	nt ; Tinn	clay, occasior	ally floo	oded is	natior	Hydric Soi	I Present? Yes X No
Type: Depth (in: emarks: Cedox fe YDROLO Vetland Hy rimary India	ches): atures preser GY drology Indicators	nt ; Tinn :: one require	clay, occasior	ally floo	oded is	natior	Hydric Soi hally listed	I Present? Yes X No hydric soil; naturally dark so
Type: Depth (in emarks: edox fe /DROLO /etland Hy rimary India	atures preser GY drology Indicators cators (minimum of Water (A1)	nt ; Tinn :: one require	clay, occasior	nally floo	oded is	natior	Hydric Soi hally listed	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Surface High Wa	atures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2)	nt ; Tinn :: one require	clay, occasior	IV)	oded is	natior	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy: Primary India Surface High Wa Saturatio	atures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	nt ; Tinn :: one require	clay, occasior	IV) (B11) Sulfide Oc	s (B13)	natior	Hydric Soi hally listed Second Sur Spa Dra	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturatio Saturatio Water M	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1)	nt ; Tinn :: one require	clay, occasion	IV) (B11) Sulfide Oc on Water T	s (B13) dor (C1) fable (C2)	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimen	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2)	nt ; Tinn :: one require	clay, occasion	IV) (B11) Sulfide Oc on Water T Rhizospher	s (B13) dor (C1) Table (C2) res on Liv	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Surface High Wa Saturation Saturation Saturation Saturation Drift Dep	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3)	nt ; Tinn :: one require	clay, occasion	IV) (B11) (B11) (B11) (Vertebrate: Sulfide Oc on Water T Rhizospher not tilled)	s (B13) dor (C1) Table (C2) res on Liv	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturatio Water N Saturatio Vater N Sedimen Drift Dep Algal Ma	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	nt ; Tinn :: one require	clay, occasion	(B11) (B11) vertebrate: Sulfide Oc on Water T Rhizospher not tilled) of Reduce	s (B13) dor (C1) able (C2) res on Liv d Iron (C2	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy: Primary India Surface High Wa Saturatio Water M Saturatio Unift Dep Algal Ma Iron Dep	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	nt ; Tinn :: one require	clay, occasion	Ally floc (B11) (B11) (Vertebrate: Sulfide Oc on Water T Rhizospher not tilled) of Reduce (Surface (s (B13) dor (C1) able (C2) res on Liv ed Iron (C4 C7)	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturation Saturation Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria	nt ; Tinn :: one require	clay, occasion	IV) (B11) (B11) vertebrate: Sulfide Oc on Water T Rhizospher not tilled) of Reduce (Surface (i plain in Re	s (B13) dor (C1) Table (C2) res on Liv d Iron (C4 C7) marks)	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturation Saturation Saturation Sedimen Drift Dep Algal Ma Iron Dep Inundati	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9)	nt ; Tinn :: one require	clay, occasion	IV) (B11) (B11) (B11) (B11) (B11) (Con Water T (Con Water T) (Con Water T) (Co	s (B13) dor (C1) ^c able (C2) res on Liv ed Iron (C4 C7) marks)	nation	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ist-Heave Hummocks (D7) (LRR F)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturatia Water N Saturatia Vater N Sedimen Drift Dep Algal Ma Iron Dep Inundati Water-S Sield Obser	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations:	nt ; Tinn :: one require	clay, occasion	Ally floc (B11) (B11) (Vertebrate: Sulfide Oc on Water T Rhizospher not tilled) of Reduce (Surface (plain in Re	s (B13) dor (C1) able (C2) res on Liv d Iron (C4 C7) marks)	nation	Hydric Soi	hydric soil; naturally dark so hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ist-Heave Hummocks (D7) (LRR F)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Surface High Wa Saturatio Water M Sedimen Drift Dep Algal Ma Iron Dep Inundati Water-S Surface Wat	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present?	nt ; Tinn :: one require	clay, occasion ed; check all that app ad; check all that app Salt Crus Aquatic Ir Hydroger Dry-Seas Oxidized (where Presence Thin Muc 37) No X Depth (ir	IV) (B11) (B11) vertebrate: Sulfide Oc on Water T Rhizospher not tilled) of Reduce (Surface (plain in Re aches):	s (B13) dor (C1) able (C2) res on Liv d Iron (C4 C7) marks)	ing Roots	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ast-Heave Hummocks (D7) (LRR F)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Saturation Saturation Saturation Saturation Saturation Sedimen Drift Dep Algal Ma Iron Dep Inundati Water-S Stield Obser Surface Water Vater Table	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present? Present?	nt ; Tinn :: one require / Imagery (E Yes Yes	Clay, occasion	ally floo (b) (b) (b) (b) (c) (c) (c) (c) (c) (c) (c) (c	s (B13) dor (C1) Table (C2) res on Liv d Iron (C4 C7) marks)	ing Roots	Hydric Soi	hydric soil; naturally dark so hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) suration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ist-Heave Hummocks (D7) (LRR F)
Type: Depth (in: Remarks: Redox fe YDROLO Vetland Hy Primary India Drift Dep High Wa Saturatio Vater N Sedimer Drift Dep Algal Ma Iron Dep Inundati Water-S Surface Wat Vater Table Saturation P	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present? Present? present?	I Imagery (E Yes Yes	Clay, occasion	ally floc	s (B13) dor (C1) rable (C2) res on Liv d Iron (C4 C7) marks)	nation	Hydric Soi	hydric soil; naturally dark so hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ist-Heave Hummocks (D7) (LRR F)
Type: Depth (in) Remarks: Cedox fe YDROLO Vetland Hy Yrimary India J Surface High Wa Saturatii Water M J Sedimen J Drift Dep Algal Ma Iron Dep Inundati Water-S ield Obser urface Wat vater Table aturation P ncludes cap j escribe Re	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present? Present? present? pillary fringe) corded Data (streat	I Imagery (E	clay, occasion	Ally floc	s (B13) dor (C1) able (C2) res on Liv d Iron (C4 C7) marks)	ing Roots	Hydric Soi hally listed Second Sur Spa Dra Dra Oxi (C3) ((C3) (C3) (C3) (C3) (C3) (C3) (C	hydric soil; naturally dark so hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) turation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ist-Heave Hummocks (D7) (LRR F)
Type: Depth (in: Cemarks: Cedox fe /DROLO /etland Hy /rimary India J Surface High Wa Saturation Saturation Drift Dep Algal Ma Iron Dep Inundati Water-S ield Obser urface Wat /ater Table aturation P ncludes cap rescribe Re	atures present): atures present GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aeria tained Leaves (B9) vations: er Present? Present? present? present? pillary fringe) corded Data (streal	nt ; Tinn :: one require / Imagery (E Yes Yes Yes m gauge, m	clay, occasion ed; check all that app Salt Crus Aquatic Ir Hydroger Dry-Seas Oxidized (where Presence Thin Muc 37) Other (Ex No X No X Depth (ir No X	Ally floc	s (B13) dor (C1) Table (C2) res on Liv d Iron (C4 C7) marks) evious ins	ing Roots	Hydric Soi	I Present? Yes X No hydric soil; naturally dark so ary Indicators (minimum of two required face Soil Cracks (B6) arsely Vegetated Concave Surface (B8) ainage Patterns (B10) idized Rhizospheres on Living Roots (C where tilled) ayfish Burrows (C8) curation Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) ast-Heave Hummocks (D7) (LRR F)



Project/Site: Lake Ralph Hall	City/County:	Ladonia/Fannin S	Sampling Date: 6/1/2017			
Applicant/Owner: Upper Trinity Regional Water District		State: TX S	ampling Point: WP249			
Investigator(s): Jason Voight, Andrew Sample	Section, Tow	Section, Township, Range:				
Landform (hillslope, terrace, etc.): Valley	Local relief (Local relief (concave, convex, none): <u>Concave</u> Slope (
Subregion (LRR): <u>Southwest Prairies</u> L	at: 33.45387	Long: <u>-95.97784</u>	Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classificati	ion: none			
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes X	No (If no, explain in Ren	narks.)			
Are Vegetation, Soil, or Hydrology signi	ficantly disturbed?	Are "Normal Circumstances" pre	esent? Yes X No			
Are Vegetation, SoilX_, or Hydrology natu	rally problematic?	(If needed, explain any answers	in Remarks.)			
SUMMARY OF FINDINGS – Attach site map she	owing sampling	point locations, transects, i	mportant features, etc.			
Hydrophytic Vegetation Present? Yes X No	Is the	Sampled Area				

Hydrophylic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes	No <u>X</u> No <u>X</u>	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>
Remarks:					

depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species		
1. Fraxinus pennsylvanica	10	No	FAC	That Are OBL, FACW, or FAC		
2. Celtis laevigata	45	Yes	FAC	(excluding FAC-): (A)		
3. Ulmus crassifolia	40	Yes	FAC	Total Number of Dominant		
4				Species Across All Strata:3 (B)		
	95	= Total Cov	rer	Percent of Dominant Species		
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)		
1. Styphnolobium affine	10	No	UPL			
2. Celtis laevigata	5	No	FAC	Prevalence Index worksheet:		
3.	_			Total % Cover of:Multiply by:		
4				OBL species x 1 =		
T				FACW species x 2 =		
3	15	Tatal Car		FAC species x 3 =		
Herb Stratum (Plot size: 450 sq ft)			er	FACU species x 4 =		
1 Elymus virginicus	80	Yes	FAC	UPL species x 5 =		
2 Toxicodendron radicans	5	No	FACU	Column Totals: (A) (B)		
2 Parthenocissus guinguefolia	10	No	FACU			
3				Prevalence Index = B/A =		
4				Hydrophytic Vegetation Indicators:		
5				1 - Rapid Test for Hydrophytic Vegetation		
6				2 - Dominance Test is >50%		
7				3 - Prevalence Index is $\leq 3.0^{1}$		
8				\square 4 - Morphological Adaptations ¹ (Provide supporting		
9				data in Remarks or on a separate sheet)		
10				Problematic Hydrophytic Vegetation ¹ (Explain)		
150 11	95	= Total Cov	er			
Woody Vine Stratum (Plot size: 450 sq ft)				Indicators of hydric soil and wetland hydrology must		
1. Toxicodendron radicans	5	No	FACU	be present, unless disturbed of problematic.		
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic		
_	10 = Total Cover		er	Vegetation		
% Bare Ground in Herb Stratum 5						
Remarks:						

SUL

Profile Desc	ription: (Descri	be to the de	pth needed to doc	ument the i	ndicator	or confirn	n the absence	e of indicators.)	
Depth	Matrix	(Re	dox Features	S				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remark	S
0-18	10 YR 3/1	100					Clay		
			· · · · · · · · · · · · · · · · · · ·						
·						<u> </u>			
			· · · · · · · · · · · · · · · · · · ·						
·						<u> </u>			
¹ Type: C=C	oncentration, D=D	epletion, RN	I=Reduced Matrix,	CS=Covered	d or Coate	ed Sand Gi	rains. ² Lo	cation: PL=Pore Lining	, M=Matrix.
Hydric Soil	Indicators: (App	licable to al	I LRRs, unless oth	erwise note	ed.)		Indicators	s for Problematic Hydr	ic Soils ³ :
Histosol	(A1)		Sand	y Gleyed Ma	trix (S4)		🛄 1 cm I	Muck (A9) (LRR I, J)	
Histic Ep	pipedon (A2)		Sand	/ Redox (S5)		Coast	Prairie Redox (A16) (L	RR F, G, H)
Black Hi	stic (A3)			ed Matrix (S	6)		Dark S	Surface (S7) (LRR G)	
Hydroge	en Sulfide (A4)		Loam	y Mucky Mir	neral (F1)		L High F	Plains Depressions (F16	ŝ)
Stratified	d Layers (A5) (LR	R F)	Loam	y Gleyed Ma	atrix (F2)			RR H outside of MLRA	. 72 & 73)
	uck (A9) (LRR F, (G, H)		ted Matrix (F	=3)			ced Vertic (F18)	
	d Below Dark Sur	ace (A11)		x Dark Surfa	ice (F6)			Parent Material (TF2)	
	ark Surface (A12)	`		ted Dark Su	rface (F7)			Shallow Dark Surface (1	F12)
	lucky Mineral (S1)		x Depression	ns (F8)			(Explain in Remarks)	
	VIUCKY Peat or Pea	at (52) (LRR		Plains Depre	essions (F	16)	Indicators	s of hydrophytic vegetat	on and
	icky Peat of Peat	(53) (LRR F) (N	ILRA / 2 & /	3 OF LRR	H)	wetian	a nyarology must be pr	esent,
Postrictivo	avor (if prosent)						unies	s disturbed of problema	lic.
Turney	Layer (ii present))-							
Type:	-h)-						Ukudaia Cail		No X
Depth (in	ches).						Hydric Sol	resent? res	
Remarks:									
No rodo	(footuroo: 7	Finn alou		v floodo	d io no	stionally	v listed by	dria coil: notur	ally dark coil
No redux	cieatures, i	IIIII Clay	, occasional	y nooue	u 15 116	alionali	y listed hy	yunc son, natur	ally uark Soli
	GY								
Wetlend Liv									
wetland Hy	drology Indicato	rs:					a 1		
Primary India	cators (minimum c	of one require	ed; check all that ap	ply)		<u> </u>	Second:	ary Indicators (minimun	<u>) of two required)</u>
Surface	Water (A1)		Salt Cru	st (B11)				face Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic	Invertebrate	s (B13)			arsely Vegetated Conca	ve Surface (B8)
Saturatio	on (A3)		Hydroge	en Sulfide Oo	dor (C1)			inage Patterns (B10)	
Water M	larks (B1)		Dry-Sea	son Water T	able (C2)		U Oxi	dized Rhizospheres on	Living Roots (C3)
Sedimer	nt Deposits (B2)			Rhizosphe	res on Liv	ing Roots	(C3) (V	where tilled)	
Drift Dep	oosits (B3)		(wher	e not tilled)			Cra	yfish Burrows (C8)	
Algal Ma	at or Crust (B4)		Presence	e of Reduce	d Iron (C4	4)	Sat	uration Visible on Aeria	I Imagery (C9)
Iron Dep	oosits (B5)		L Thin Mu	ck Surface (C7)			omorphic Position (D2)	
Inundati	on Visible on Aeri	al Imagery (E	37) 📙 Other (E	xplain in Re	marks)			C-Neutral Test (D5)	
U Water-S	tained Leaves (B	Э)					└── Fro	st-Heave Hummocks (E	07) (LRR F)
Field Obser	vations:								
Surface Wat	er Present?	Yes	No X Depth	inches):					
Water Table	Present?	Yes_	No X Depth	inches):		_			
Saturation P	resent?	Yes	No X Depth	inches):		Wetl	and Hydrolod	y Present? Yes	No X
(includes cap	oillary fringe)		·			_	,		
Describe Re	corded Data (stre	am gauge, m	nonitoring well, aeria	al photos, pro	eviou s ins	pections),	if available:		



Project/Site: Lake Ralph Hall	City/County: I	_adonia/Fannin	Sampling Date: <u>6/1/2017</u>		
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP250		
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	nship, Range:			
Landform (hillslope, terrace, etc.): Valley	Local relief (c	_ Local relief (concave, convex, none): Concave Slope			
Subregion (LRR): Southwest Prairies La	t: <u>33.45413</u>	Long: <u>-95.97782</u>	Datum: NAD83		
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	cation: none		
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X	No (If no, explain in R	Remarks.)		
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances"	present? Yes X No		
Are Vegetation, Soil _ X, or Hydrology natura	Ily problematic?	matic? (If needed, explain any answers in Remarks.)			
SUMMARY OF FINDINGS – Attach site map show	wing sampling	point locations, transects	s, important features, etc.		

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes X	No	within a Wetland?	Ves X	No
Wetland Hydrology Present?	Yes X	No		165	NO
Remarks:			•		

depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 700 sq ft)	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW, or FAC	(•)
2. Celtis laevigata	25	Yes	FAC	(excluding FAC-): ((A)
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Dominant	
4				Species Across All Strata: <u>3</u> ((В)
	90	= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC:100 ((A/B)
1. Celtis laevigata	5	No	FAC		
2. Ulmus crassifolia	5	No	FAC	Prevalence Index worksheet:	
3. Fraxinus pennsylvanica	15	No	FAC	Total % Cover of: Multiply by:	
4 Ulmus americana	10	No	FAC	OBL species x 1 =	
5				FACW species x 2 =	
	35	- Total Ca		FAC species x 3 =	
Herb Stratum (Plot size: ⁴⁵⁰ sq ft)		= 10(a) COV		FACU species x 4 =	
1. Ambrosia trifida	1	No	FAC	UPL species x 5 =	
2 Styphnolobium affine	1	No	UPL	Column Totals: (A)	(B)
3			·		()
۵				Prevalence Index = B/A =	
4				Hydrophytic Vegetation Indicators:	
5				1 - Rapid Test for Hydrophytic Vegetation	
6				2 - Dominance Test is >50%	
7				3 - Prevalence Index is $\leq 3.0^{1}$	
8		. <u> </u>		4 - Morphological Adaptations ¹ (Provide suppo	ortina
9				data in Remarks or on a separate sheet)	Jiang
10			. <u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain))
450 og ti	2	= Total Cov	ver		
<u>Woody Vine Stratum</u> (Plot size: 450 sq π)				'Indicators of hydric soil and wetland hydrology mu	ıst
1					
2				Hydrophytic	
00		= Total Cov	ver	Vegetation Procent? Vos X No	
% Bare Ground in Herb Stratum 98					
Remarks:					

Depth		to the dop			maicator	or contin	m the absence	of indicators.)
	<u>Matrix</u>	0/	Red	ox Feature	S Turne ¹		Taxtura	Demortes
		70		70	<u>iype</u>	LUC	rexture	
4.0							0	
1-3	10 YR 2/1	95	10 YR 4/6	5	<u> </u>	IVI	Clay	Redox in upper portions
3-18	10 YR 2/1	100			<u> </u>			
					·			
					·			
<u> </u>					- <u> </u>			
				<u> </u>	·			
¹ Type: C=C	oncentration, D=Dep	pletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	irains. ² Lo	cation: PL=Pore Lining, M=Matrix.
Hydric Soll	Indicators: (Applic	cable to all		erwise not	ed.)			s for Problematic Hydric Solis :
	I (A1) ninodon (A2)		Sandy	Gleyed Ma	atrix (S4)			Muck (A9) (LRR I, J) Prairie Rodey (A16) (LPR E, C, H)
	listic (A3)			d Matrix (St	56)		Dark S	Surface (S7) (I RR G)
Hydroge	en Sulfide (A4)			Mucky Mi	neral (F1)			Plains Depressions (F16)
Stratifie	d Layers (A5) (LRR	F)	Loamy	Gleyed M	atrix (F2)		(LI	RR H outside of MLRA 72 & 73)
1 cm Mu	uck (A9) (LRR F, G,	H)	Deplete	ed Matrix (F3)		Reduc	ced Vertic (F18)
	d Below Dark Surfac	ce (A11)	Redox	Dark Surfa	ace (F6)			Parent Material (TF2)
	ark Surface (A12)			ed Dark Su	urface (F7)			Shallow Dark Surface (TF12)
	Mucky Mineral (ST)	(S2) (I RR (Depressio	ns (ro) essions (F	16)	³ Indicators	(Explain in Remarks)
5 cm Mi	ucky Peat or Peat (S	(02) (LRR F)	(M I	LRA 72 &	73 of LRR	H)	wetlar	id hydrology must be present.
	, (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	Υ.			,	unless	s disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	iches):						Hydric Soi	I Present? Yes X No
Remarks:							1	
Redox fe	eatures preser	it; Tinn (clay, occasion	ally floo	oded is	nation	ally listed	hydric soil; naturally dark soil
HYDROLO)GY							
Wetland Hy	drology Indicators	•						
Primary Indi	cators (minimum of	Sne require	d [.] check all that and				Second	any Indicators (minimum of two required)
	Water (A1)		Salt Crus	t (B11)				face Soil Cracks (B6)
High Wa	ater Table (A2)			vertebrate	es (B13)			arsely Vegetated Concave Surface (B8)
Saturati	ion (A3)			Sulfide O	dor (C1)			linage Patterns (B10)
Saturation (A3) Hydrogen Suifide Odor (C1) Dru Seggen Water Table (C2)								
Water N	/larks (B1)		L Dry-Seas	UII VValei	I able (UZ)		L Oxi	dized Rhizospheres on Living Roots (C3)
U Water M U Sedime	/larks (B1) nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ng Roots	(C3) (V	dized Rhizospheres on Living Roots (C3) where tilled)
Water M	/larks (B1) nt Deposits (B2) posits (B3)		Oxidized (where	Rhizosphe not tilled)	eres on Livi	ng Roots		dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8)
Water M Sedime Drift De Algal Ma	/larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Dry-Seas	Rhizosphe not tilled)	eres on Livi eres on Livi	ng Roots)	(C3) (V Cra Sat	dized Rhizospheres on Living Roots (C3) where tilled) uyfish Burrows (C8) uration Visible on Aerial Imagery (C9)
✓ Water M ✓ Sedime ✓ Drift De ✓ Algal Ma ✓ Iron De	/arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Dry-Seas Oxidized (where Presence Thin Muc	Rhizosphe not tilled) of Reduce k Surface	eres on Livi ed Iron (C4	ng Roots)	(C3) (v C3) (v Cra Sat Geo	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2)
✓ Water M Sedime □ Drift De □ Algal Ma □ Iron De □ Inundatia	nt Deposits (B2) posits (B2) at or Crust (B4) posits (B5) ion Visible on Aerial	Imagery (B	Dry-Seas Oxidized (where Presence Thin Muc 7)	Rhizosphe not tilled) of Reduce k Surface	eres on Livi ed Iron (C4 (C7) emarks)	ng Roots)	(C3) (v C3) (v Cra Sat Gee FA0	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5)
Vater M Sedime Drift De Algal Ma Iron Dep Unundati	Aarks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9)	Imagery (B	Dry-Seas Oxidized (where Presence Thin Muc 7)	Rhizosphe not tilled) of Reduce k Surface	eres on Livi ed Iron (C4 (C7) emarks)	ng Roots)	(C3) (N C3) (N Cra Sat Gev FAN Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Vater M Sedimer Drift Dej Algal Ma Iron Dej Inundati Water-S	Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations:	Imagery (B	Dry-Seas Oxidized (where Presence Thin Muc 7) Other (Ex	Rhizosphe not tilled) of Reduce k Surface	ed Iron (C4 ed Iron (C4 (C7) emarks)	ng Roots)	(C3) (N Cra Sat Geu FAI Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Water M Sedimer Drift De Algal Ma Iron De Inundati Water-S Field Obser Surface Water	Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	Imagery (B	Dry-Seas Oxidized (where Presence Thin Muc 7) Other (Ex No X Depth (ir	Rhizosphe not tilled) of Reduce k Surface plain in Re	eres on Livi ed Iron (C4 (C7) emarks)	ng Roots) 	(C3) (t Cra Sat Geo FAI Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Vater M Sedime Drift De Algal Ma Iron De Inundati Water-S Field Obser Surface Wate Water Table	Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	Imagery (B /es /es	Dry-Seas Oxidized (where Presence Thin Muc Thin Muc Other (Ex No X Depth (ii No X Depth (ii	not tilled) of Reduce k Surface plain in Re nches):	eres on Livi ed Iron (C4 (C7) emarks)	ng Roots) —	(C3) (t Cra Cra Cra Sat Gee FAI FAI	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Water M Sedimer Sedimer Control Sedimer Sedim	Arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present?	Imagery (B /es /es /es		not tilled) of Reduce k Surface (plain in Re nches): nches):	eres on Livi ed Iron (C4 (C7) emarks)	ng Roots) Wet	(C3) (N Cra Sat Gee FAA Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F) gy Present? Yes X No
Water M Sedimer Sedimer Drift Deg Algal Ma Iron Deg Inundati Water-S Field Obser Surface Wat Water Table Saturation P (includes cag Describe Re	Arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? pillary fringe) coorded Data (stream	Imagery (B /es /es /es		not tilled) of Reduce k Surface plain in Re nches): nches): photos pi	ed Iron (C4 (C7) emarks)	ng Roots)Wet	(C3) (\ Cra Cra Sat Gee FAI FAI Iand Hydrolog	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F)
Water M Sedime Drift De Algal Ma Iron De Inundati Water-S Field Obser Surface Wate Vater Table Saturation P (includes cal Describe Re	Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? pillary fringe) ecorded Data (strean	Imagery (B /es /es /es n gauge, mo		not tilled) of Reduce k Surface cplain in Re nches): nches): photos, pr	ed Iron (C4 (C7) emarks)	ng Roots) Wet poections)	(C3) (t Cra Cra Sat Gee FAU Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) omorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F) gy Present? Yes X No
Water M Sedimer Sedimer Control Sedimer Sedimer Control Sedimer Sedim	Arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? Present? pillary fringe) pecorded Data (stream	Imagery (B /es /es /es n gauge, mo	Dry-Seas Oxidized (where Presence Thin Muc 7) Other (Ex No X Depth (in No X Depth (in No X Depth (in no X Depth (in onitoring well, aerial	Rhizosphe not tilled) of Reduce k Surface (plain in Re nches): nches): photos, pr	revious ins	ng Roots) Wet pections)	(C3) (\ Cra Sat Geu FA4 Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F) gy Present? Yes X No
Water M Sedime Control Sedime Contr	Arks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Present? Present? pillary fringe) ecorded Data (strean	Imagery (B /es /es /es n gauge, mo	Dry-Seas Oxidized (where Presence Thin Muc 7) Other (Ex No X Depth (in No X Depth (in No X Depth (in onitoring well, aerial	not tilled) of Reduce k Surface (plain in Re nches): nches): photos, pi	revious insp	ng Roots) Dections)	(C3) (\ Cra Sat Geu FAU FAU Fro	dized Rhizospheres on Living Roots (C3) where tilled) hyfish Burrows (C8) uration Visible on Aerial Imagery (C9) comorphic Position (D2) C-Neutral Test (D5) st-Heave Hummocks (D7) (LRR F) gy Present? Yes X No





Project/Site: Lake Ralph Hall	City/County: L	adonia/Fannin	Sampling Date: 6/1/2017				
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP297				
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	ship, Range:					
Landform (hillslope, terrace, etc.): Valley	Local relief (c	Local relief (concave, convex, none): Concave Slope ('					
Subregion (LRR): Southwest Prairies	t: <u>33.453</u>	Long: <u>-95.97744</u>	Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	ation: PFO1A				
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain in R	emarks.)				
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances" p	present? Yes X No				
Are Vegetation, Soil _ X, or Hydrology natura	lly problematic?	(If needed, explain any answe	rs in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Ves X No							

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X Yes X	No No	Is the Sampled Area within a Wetland?	Yes X	Νο
Wetland Hydrology Present?	Yes X	No			
Remarks:					

delineated during heavy storm; similar to wp86. depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Deminent Species	
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW, or FAC	
2. Celtis laevigata	25	Yes	FAC	(excluding FAC-): 3	(A)
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Dominant	
4				Species Across All Strata: 3	(B)
	90	= Total Co	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100	(A/B)
1. Celtis laevigata	5	No	FAC		
2. Ulmus crassifolia	5	No	FAC	Prevalence Index worksheet:	
3. Fraxinus pennsylvanica	15	No	FAC	Total % Cover of: Multiply by:	-
4. Ulmus americana	10	No	FAC	OBL species x 1 =	-
5				FACW species x 2 =	-
	35	= Total Co	ver	FAC species x 3 =	-
Herb Stratum (Plot size: 450 sq ft)				FACU species x 4 =	-
1. Ambrosia trifida	1	No	FAC	UPL species x 5 =	_
2. Styphnolobium affine	1	No	UPL	Column Totals: (A)	_ (B)
3					
4				Prevalence Index = B/A =	-
5.				Hydrophytic Vegetation Indicators:	
6.				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
8			·	3 - Prevalence Index is ≤3.0 ¹	
9				4 - Morphological Adaptations ¹ (Provide supp data in Remarks or on a separate sheet)	orting
10				Problematic Hydrophytic Vegetation ¹ (Explain	า)
450 ag #	2	= Total Co	ver		,
<u>Woody Vine Stratum</u> (Plot size: 450 sq π) 1.				Indicators of hydric soil and wetland hydrology m be present, unless disturbed or problematic.	ust
2				Hydrophytic	
		- Total Co	ver	Vegetation	
% Bare Ground in Herb Stratum 98		- 10(0100		Present? Yes <u>×</u> No	
Remarks:					

SOIL

Depth	Matrix		Red	ox Feature	S					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-18	10 YR 2/1	95	10 YR 4/6	5	С	Μ	Clay			
			·		·		·			
					·		·			
<u></u>			-		·					
			<u></u>		·		·			
'Type: C=C	oncentration, D=D	epletion, RN	M=Reduced Matrix, C	S=Covere	d or Coate	ed Sand G	Brains. ² Loo	cation: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (App	licable to a	II LRRs, unless othe	erwise not	ed.)		Indicators	for Problematic Hydric Soils":		
Histosol	l (A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm N	Muck (A9) (LRR I, J)		
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Coast	Prairie Redox (A16) (LRR F, G, H)		
Black H	istic (A3)		Strippe	ed Matrix (S	S6)		Dark Surface (S7) (LRR G)			
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		L High P	Plains Depressions (F16)		
Stratifie	d Layers (A5) (LRI	R F)	Loamy	Gleyed M	atrix (F2)			RR H outside of MLRA 72 & 73)		
📙 1 cm Mı	uck (A9) (LRR F, G	i, H)		ed Matrix (F3)		Reduc	ced Vertic (F18)		
Deplete	d Below Dark Surf	ace (A11)	Redox	Dark Surfa	ace (F6)			arent Material (TF2)		
Thick D	ark Surface (A12)			ed Dark Su	urface (F7))	Very S	Shallow Dark Surface (TF12)		
Sandy N	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		C Other	(Explain in Remarks)		
2.5 cm l	Mucky Peat or Pea	t (S2) (LRR	G, H) <u></u> High P	lains Depr	essions (F	16)	Indicators	of hydrophytic vegetation and		
5 cm Mi	ucky Peat or Peat	(S3) (LRR F) (M	LRA 72 &	73 of LRR	R H)	wetlan	d hydrology must be present,		
							unless	disturbed or problematic.		
Restrictive	Layer (if present)									
Туре:										
Depth (in	ches):						Hydric Soil	Present? Yes X No		
Remarks:										
Redox fe	atures prese	nt: Tinn	clay, occasior	ally floo	oded is	nation	ally listed h	hydric soil: naturally dark soil		
		,								
HYDROLO	GY									
wetland Hy	drology indicator	S:								
Primary Indi	cators (minimum o	f one requir	ed; check all that app	oly)			Seconda	ary Indicators (minimum of two required)		
Surface	Water (A1)		Salt Crus	t (B11)				face Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic I	nvertebrate	es (B13)		🗹 Spa	arsely Vegetated Concave Surface (B8)		
Saturati	on (A3)		🔲 Hydroger	n Sulfide O	dor (C1)		🔲 Drai	inage Patterns (B10)		
✓ Water M	/larks (B1)		Dry-Seas	on Water	Table (C2)			dized Rhizospheres on Living Roots (C3)		
🛛 🗆 Sedime	nt Deposits (B2)			Rhizosphe	eres on Liv	vina Roots	(C3) (w	vhere tilled)		
Drift De	posits (B3)		(where	not tilled)		5		vfish Burrows (C8)		
	at or Crust (B4)			of Reduce	d Iron (C	4)		uration Visible on Aerial Imagery (C9)		
	action of dist (D-F)			k Surface	(C7)			marchic Position (D2)		
	pusits (DJ)				(07)					
		ai imagery (i		cpiain in Re	emarks)			-Neutral Test (D5)		
Water-S	Stained Leaves (B9)						st-Heave Hummocks (D7) (LRR F)		
Field Obser	vations:		\mathbf{v}							
Surface Wat	ter Present?	Yes	No <u>^</u> Depth (i	nches):						
Water Table	Present?	Yes	No X Depth (i	nches):						
Saturation P	resent?	Yes	No X Depth (i	nches):		Wet	land Hydrolog	v Present? Yes X No		
(includes ca	pillary fringe)		- <u> </u>			_	, ,	·		
Describe Re	ecorded Data (strea	am gauge, n	nonitoring well, aeria	photos, pr	reviou s ins	spections)	, if available:			
Remarks:										

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Project/Site: Lake Ralph Hall Supplemental JD	City/County: L	adonia/Fannin	_ Sampling Date: <u>6/2/2017</u>				
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: <u>WP305</u>				
Investigator(s): <u>Jason Voight</u> , Andrew Sample	Section, Town	ship, Range:					
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	e Slope (%): <u>0-1%</u>				
Subregion (LRR): Southwest Prairies	33.45236	Long: <u>-95.97613</u>	Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classi	fication: PFO1A				
Are climatic / hydrologic conditions on the site typical for this time Are Vegetation, Soil, or Hydrology signific	of year? Yes <u>X</u> antly disturbed?	No (If no, explain in Are "Normal Circumstances"	Remarks.) ' present? Yes <u>X</u> No				
Are Vegetation, Soil, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)							
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No X No X Wetland Hydrology Present? Yes No X	Is the s	Sampled Area a Wetland? Yes	<u>No X</u>				

Remarks:

Heavy storms the previous day; depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1 Fraxinus pennsylvanica	10	No	FAC	Number of Dominant Species	
2 Celtis laevigata	35	Yes	FAC	(excluding FAC-):4 (A	(A)
3. Ulmus americana	50	Yes	FAC	Total Number of Dominant	
4.				Species Across All Strata: 4 (E	B)
	95	= Total Cov	/er	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A	A/B)
1. Celtis laevigata	90	Yes	FAC		
2. Quercus stellata	5	No	FACU	Prevalence Index worksheet:	
3.				Total % Cover of: Multiply by:	
4				OBL species x 1 =	
5				FACW species x 2 =	
	95	- Total Ca		FAC species x 3 =	
Herb Stratum (Plot size: ^{450 sq ft})				FACU species x 4 =	
1. Toxicodendron radicans	5	No	FACU	UPL species x 5 =	
2. Elymus virginicus	50	Yes	FAC	Column Totals: (A)	(B)
3. Viola missouriensis	5	No	FACW		
4. Parthenocissus quinquefolia	5	No	FACU	Prevalence Index = B/A =	
5.				Hydrophytic Vegetation Indicators:	
6				1 - Rapid Test for Hydrophytic Vegetation	
7				2 - Dominance Test is >50%	
0				3 - Prevalence Index is ≤3.0 ¹	
9				4 - Morphological Adaptations ¹ (Provide suppor data in Remarks or on a separate sheet)	rting
10				Problematic Hydrophytic Vegetation ¹ (Explain)	
	65	= Total Cov	/er		
<u>Woody Vine Stratum</u> (Plot size: <u>450 sq ft</u>)				¹ Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	st
1				Hadrow badle	
2	0			Hydropnytic Vegetation	
% Bare Ground in Herb Stratum 35	<u> </u>		/er	Present? Yes X No	
Remarks:				1	

SUL

Profile Desc	ription: (Describe	e to the depth	n needed to docu	ment the i	ndicator	or confirm	n the absence o	f indicators.)		
Depth	Matrix		Rede	ox Features	3					
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks		
0-18	10 YR 2/1	100					Clay			
·										
·										
¹ Type: C=Co	oncentration, D=De	pletion, RM=F	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. ² Loca	tion: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless othe	rwise note	ed.)		Indicators f	or Problematic Hydric Soils ³ :		
Histosol	(A1)		Sandy	Gleyed Ma	trix (S4)		🔲 1 cm Mi	uck (A9) (LRR I, J)		
Histic Ep	pipedon (A2)		Sandy	Redox (S5)		Coast P	rairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		🔲 Strippe	d Matrix (S	6)		🔲 Dark Su	rface (S7) (LRR G)		
Hydroge	en Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		🔲 High Pla	ains Depressions (F16)		
Stratified	d Layers (A5) (LRR	F)	Loamy	Gleyed Ma	atrix (F2)		(LRF	R H outside of MLRA 72 & 73)		
L 1 cm Mu	uck (A9) (LRR F, G,	H)		ed Matrix (F	-3)		Reduce	d Vertic (F18)		
	d Below Dark Surfa	ce (A11)		Dark Surfa	ce (F6)		Red Par	rent Material (TF2)		
	ark Surface (A12)			ed Dark Su	rface (F7)			allow Dark Surface (TF12)		
	Aucky Mineral (S1)			Depression	15 (F8)	10)	Uther (Explain in Remarks)			
	NUCKY Peat of Peat	(52) (LKK G,	HIGH P			16) LI)	Indicators o	hydrology must be present		
	icky real of real (C	55) (LKK F)			J UI LKK	п)		listurbed or problematic		
Restrictive I	aver (if present).									
Type:	Luyer (ii precent).									
Dooth (in							Undria Cail I	No. Xoo No. X		
Depth (ind	cnes):						Hydric Soll F			
Remarks:										
	(feeturee, T		i llı	fleede	dia na		. lists of bur			
no redox	cleatures; T	nn clay, o	occasionally	noode	a is na	allonall	y listed hyd	and soil, naturally dark so		
HIDKOLO										
Wetland Hy	drology Indicators									
Primary Indic	cators (minimum of	one required;	check all that app	ly)			<u>Secondar</u>	y Indicators (minimum of two required)		
Surface	Water (A1)		Salt Crust	t (B11)			Surfa	ce Soil Cracks (B6)		
High Wa	ater Table (A2)		Aquatic Ir	vertebrate	s (B13)			sely Vegetated Concave Surface (B8)		
Saturatio	on (A3)		Hydrogen	Sulfide Oc	dor (C1)		Drain	age Patterns (B10)		
Water M	larks (B1)		Dry-Seas	on Water T	able (C2)		U Oxidi	zed Rhizospheres on Living Roots (C3		
Sedimer	nt Deposits (B2)			Rhizosphe	res on Liv	ing Roots	(C3) (wh	ere tilled)		
Drift Dep	posits (B3)		(where	not tilled)			Crayf	ish Burrows (C8)		
Algal Ma	at or Crust (B4)		Presence	of Reduce	d Iron (C4	l)	Satur	ation Visible on Aerial Imagery (C9)		
Iron Dep	oosits (B5)		Thin Muc	k Surface (C7)		Geon Geon	norphic Position (D2)		
Inundatio	on Visible on Aerial	Imagery (B7)	U Other (Ex	plain in Re	marks)		FAC-	Neutral Test (D5)		
Water-S	tained Leaves (B9)						L Frost	Heave Hummocks (D7) (LRR F)		
Field Obser	vations:									
Surface Wate	er Present?	Yes N	o X Depth (ir	nches):		_				
Water Table	Present?	Yes N	o X Depth (ir	nches):						
Saturation P	resent?	Yes N	0 X Depth (ir	, <u> </u>		Wetl	and Hydrology	Present? Yes No X		
(includes cap	pillary fringe)		• <u> </u>							





Project/Site: Lake Ralph Hall Supplemental JD	City/County: L	_adonia/Fannin	_ Sampling Date: <u>6/2/2017</u>	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP306	
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	nship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	Slope (%): 0-1%	
Subregion (LRR): Southwest Prairies	Lat: <u>33.45272</u>	Long: <u>-95.97639</u>	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classifica	ation: none	
Are climatic / hydrologic conditions on the site typical for this t	ime of year? Yes X	No (If no, explain in Re	emarks.)	
Are Vegetation, Soil, or Hydrology sig	nificantly disturbed?	Are "Normal Circumstances" p	resent? Yes X No	
Are Vegetation, SoilX, or Hydrology nat	urally problematic?	(If needed, explain any answer	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sl	nowing sampling	point locations, transects,	important features, etc.	
Hydrophytic Vegetation Present? Yes X No.				

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No <u>X</u>	within a Wotland?	Voc	No X
Wetland Hydrology Present?	Yes	No <u>X</u>		165	NO
Remarks:					

Heavy storms the previous day; depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species		
1				That Are OBL, FACW, or FAC	5	(A)
2				(excluding PAC ⁻).		(A)
3				Total Number of Dominant	5	
4				Species Across All Strata:		(B)
2 1: (2) 1 2: (2) (2) (3) 700 sg ft	0	= Total Cov	er	Percent of Dominant Species	100	
Sapling/Shrub Stratum (Plot size: 100 Sq ft)	35	Vec	FAC	That Are OBL, FACW, or FAC:	100	(A/B)
1		Vee		Prevalence Index worksheet:		
2. Plaxinus pennsylvanica		Tes		Total % Cover of:	Multiply by:	
3. Gleditsia triacanthos	10	NO	FACU		(1 –	
4					<pre></pre>	-
5					<pre></pre>	-
150 cg ft	80	= Total Cov	rer	FAC species	(3 =	-
Herb Stratum (Plot size: 450 sq it)	5	No	EAC	FACU species >	<pre>< 4 =</pre>	-
	<u> </u>	INO	FAC	UPL species >	< 5 =	-
2. Elymus virginicus	20	Yes	FAC	Column Totals: (A	A)	_ (B)
3. Ambrosia trifida	40	Yes	FAC	Provolonco Indox – R/A –	_	
4. Bignonia capreolata	5	No	FACU	Flevalence index = B/A =		
5. Amaranthus tuberculatus	30	Yes	FAC	Hydrophytic vegetation indic	ators:	
6				1 - Rapid Test for Hydrophy	ytic Vegetation	
7.				2 - Dominance Test is >509	%	
8.				3 - Prevalence Index is ≤3.	0'	
9.				4 - Morphological Adaptatio	ons ¹ (Provide sup	porting
10.					agotation ¹ (Evalui	n)
	100	= Total Cov	er		egetation (Explai	11)
Woody Vine Stratum (Plot size: 450 sq ft)			0.	¹ Indicators of hydric soil and we	tland hydrology n	∩ust
1				be present, unless disturbed or	problematic.	
2				Hydrophytic		
	0	= Total Cov	er	Vegetation		
% Bare Ground in Herb Stratum 0				Present? Yes <u>^</u>	No	
Remarks:						

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Depth Matrix Redox Features 0-18 10 YR 3/2 100	Profile Desc	cription: (Describe	e to the depth	needed to docu	ment the i	ndicator	or confirm	the absence of	indicators.)
Inches) Color (moist) % Color (moist) % Type Loc Tature Remarks 0-18 10 YR 3/2 100 Clay Clay Clay Clay 0 10 YR 3/2 100 Clay Clay Clay Clay 0 10 YR 3/2 100 Clay Cla	Depth	Matrix		Rede	ox Feature	s			
10 YR 3/2 100 Clay 10 Clay Clay 11 Clay Clay 12 Clay Clay 12 Clay Clay	(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
Image: Concentration, D-Depletion, RM-Reduced Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location: PL_Pore Lining, M-Matrix, Matrix (Saccovered or Coated Sand Grains, "Location, Calibratics, Plans, Depressions, (F16) Histosol (A1) Bardy Matrix (Saccovered Matrix (Sa) Indicators for Problematic Hydric Solis"; Bardy Matrix (Saccovered Mat	0-18	10 YR 3/2	100					Clay	
Type: C-Concentration. D-Depletion. RM=Reduced Matrix. CS=Covered or Coated Sand Grains. *Location: PL-Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils': 1 mm Muck (39) (LRR 1, J) Histic Epigedon (A2) Sandy Rdox (S5) 1 mm Muck (39) (LRR 1, J) Cased Praine Redox (A10) (LRR 1, G, H) Hydricgs Nullide (A4) Sindy Rdox (S5) 1 mm Muck (30) (LRR 7, G, H) Depleted Matrix (F2) LRR Housed Ortic (F16) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Depleted Matrix (F2) Red Parent Matrial (TF2) Depleted Matrix (F3) Red Parent Matrial (TF2) Very Shallow Dark Surface (T12) Other (Explain in Remarks) S. com Mucky Peat or Peat (S2) (LRR F, H) High Plains Depressions (F6) Other (Explain in Remarks) 1 moldcators of hydrophytic regulation and wetland hydroclogy must be present, unless disturbed or problematic. Restrictive Layer (If present): Type: No_X No_X Depth (data hydroclogy Indicators: Hydric Soil Present? Yes No_X No_X Metric Mydrology Indicators: Hydric Soil Present? Yes No_X No_X Metric Mydrology Indicators: Depth (mothes): Surface Soil Cracks (86) Depth (mothes):								·	
**Type: C-Concentration, D-Degeletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to al LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosoil (A) Sandy Cleved Matrix (St) Indicators for Problematic Hydric Soils*: Histosoil (A) Sandy Cleved Matrix (St) Indicators for Problematic Hydric Soils*: Histosoil (A) Sandy Cleved Matrix (St) Indicators for Problematic Hydric Soils*: Histosoil (A) Learny Mucky Mineral (C1) Indicators for Problematic Hydric Soils Brack Histisc (A) Learny Mucky Mineral (C1) Indicators for Problematic Hydric Soils Brack Hydrogen Sulfide (A) Learny Gleved Matrix (S3) Perfect Matrix (S8) Depleted Botov Dark Surface (F1) Perfect Matrix (S8) Perfect Matrix Soil Active (F18) Brock Nitisc (A12) Perfect Matrix (S8) Perfect Matrix (S8) Brock Mineral (S1) Perfect Matrix (S8) Perfect Matrix (S8) Brock Matrix (S8) Mutrix (S8) Perfect Matrix (S8) Brock Mineral (S1) Perfect Matrix (S8) Perfect Matrix (S8) Brock Mineral (S1) Perfect Matrix (S8) Perfect Matrix (S8) Brot Mucky Peat or Peat								·	
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. ² Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils? Histic Epipedon (A2) Sandy Redox (S5) Biatch Histic (A3) Sandy Redox (S5) Histic Epipedon (A2) Dark Surface (S7) (LRR G) Histic Epipedon (A2) Dark Surface (S7) Biatch Histic (A3) Dark Surface (S7) Depleted Balax (Histic (A3) Dark Surface (S7) Biatch Histic (A3) Dark Surface (S7) Depleted Balax (Histic (A2) Depleted Balax (Histic (F2) Depleted Balax Surface (A12) Depleted Dark Surface (F7) Red Parent Material (TF2) Depleted Dark Surface (F7) Red Depleted Surface (A12) Depleted Dark Surface (F7) Sendy Mucky Mineral (S12) High Plains Depressions (F6) So m Mucky Peat or Peat (S2) (LRR 6, H) High Plains Depressions (F6) Mucky Peat or Peat (S3) (LRR F) (MLR A 72 & 73 of LR H) Water Marks (B1) Depleted Dark Surface (F7) Rearbitive Salax (Histic A3) Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F6) Mucky Peat or Peat (S3) (. <u> </u>	
"Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains, "Location: PL=Pore Lining, M=Matrix, Pydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solls?; Histosol (A1) Sandy Redox (S5) Indicators for Problematic Hydric Solls?; Black Hits: Epipedon (A2) Sandy Redox (S5) Indicators for Problematic Hydric Solls?; Black Hits: Epipedon (A2) Sandy Redox (S5) Indicators for Problematic Hydric Solls?; Black Hits: Epipedon (A2) Sandy Redox (S5) Indicators for Problematic Hydric Solls?; Black Hits: (K3) Indicators for Problematic Hydric Solls?; Indicators for Problematic Hydric Solls?; Black Hits: (K3) Black Hits: (K3) Indicators for Problematic (F1) Indicators for Problematic (F1) Depleted Both Surface (K1) Depleted Dark Surface (F1) Reduced Varia (F1) Indicators of hydrophylic vegatation and with (F2) Sandy Mucky Mineru (S1) Redox Darks (Tacte (F7) No									
"Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydrics Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis': Histics Soli Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Solis': Histic Explored n(A2) Sandy Redox (S5) Coast Prains Redox (AF) (LRR F) Black Histic (A3) Simpped Matrix (S4) Dark Surface (S7) (LRR G) Hydrigen Sulfide (A4) Depleted Matrix (F2) Learny Mucky Mineral (F1) Learny Mucky Mineral (F1) Depleted Below Dark Surface (A11) Depleted Matrix (F2) Reduced Varia (F12) Reduced Varia (F12) Sorm Mucky Peat or Peat (S2) (LRR G, H) Depleted Dark Surface (F6) Other (Explain in Remarks) *indicators of Mustriphytic vegetation and wetand hydrology must be present. Sorm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) *indicators (Minpohytic vegetation and wetand hydrology must be present. Much (A5) Restrictive Layer (if present): Type: No X Type: Restrictive Layer (if present): Sait Crust (B11) Sait Crust (B13) Sait Crust (B13) Bepleted Below Dark (R3) Hydrice Soil Present? <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>									
"Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix. "Hydric Soil Indicators (Applicable to all LRRs, unless otherwise noted.] Indicators for Problematic Hydric Soils': Histosol (A1) Sandy Redox (S5) Coast Printing Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S1) Coast Printing Redox (A16) (LRR F, G, H) Black Histic (A3) Stripped Matrix (S1) Coast Printing Redox (A16) (LRR F, G, H) Depleted Below Dark Surface (A11) Depleted Matrix (S1) Redox Depressions (F16) Thick Dark Surface (A12) Depleted Matrix (S1) Redox Depressions (F16) Standfiel Lever (if present): Trype: Cotter (EF12) Stand Mucky Mineral (S1) Depleted Dark Surface (F7) Very Shallow Dark Surface (TF12) Stand Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: No X Muck A19 (LRR H) Surface (S7) No redOx features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil Hydric Soil Present? Yes		-							
"Type: C-Concentration, D=Depletion, RM-Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix, Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils': Indicators for Problematic Hydric Soils': Histosoil (A) Sandy Redox (S5) Coast Problematic Hydric Soils': Icon Muck (A) (IRR F, G, H) Black Histic (A3) Coast Prime Redox (A16) (IRR F, G, H) Depleted Matrix (F2) Icun Muck (A) (IRR F, G, H) Depleted Below Dark Surface (A11) Depleted Dark Surface (F1) Red Varia (F1) Red Varia (F1) Depleted Below Dark Surface (A12) Depleted Dark Surface (F7) Red Varia (F1) Red Varia (F1) Depleted Network Peat or Peat (S2) (IRR G, H) High Plains Depressions (F16) *Indicators of hydrophytic vegatation and wetland hydrology must be present. 2.5 cm Mucky Peat or Peat (S2) (IRR G, H) High Plains Depressions (F16) *Indicators of hydrophytic vegatation and wetland hydrology must be present. Type:							·	·	
*Type: C-Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histic Epipedon (A2) Sandy Gleyad Matrix (S4) Coast Praine Reduc (A5) Black Histic (A3) Loamy Mucky Mineral (F1) Dark Surface (S7) (LRR G, G, H) Depleted Below Dark Surface (A11) Depleted Matrix (S3) Red Ara Kurface (TF12) Depleted Below Dark Surface (A12) Depleted Dark Surface (F6) Red Parent Material (TF2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Red Parent Material (TF2) Sandy Mucky Mineral (S1) Red Depressions (F16) *Indicators of hydrophytic vegetation and weliand hydrology must be present, unless disturbed or problematic. Retrictive Layer (if present): Type: Hydric Soil Present? Yes No X Remarks: No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil Hydrigen Sulfide (A2) Aquatic Inventeries (B13) Saturation (A3) Hydrigen Sulfide Odor (C1) Saturation (A3) Drydrogen Sulfide (C7) Wetland Hydrology Indicators: Saturation (K3) Hydrigen Sulfide Odor (C1) Saturation (K3) Drydregen Sulfide (C2)									
*Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. *Location: PL=Pore Lining, M=Matrix. Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils*: Histosoil (A1) Sandy Gleyed Matrix (S6) I om Muck (A9) (LRR 1, J) Black Histic (A3) Sintpeel Matrix (S6) Dark Surface (S7) (LRR 6, H) Black Histic (A3) Learny Gleyed Matrix (F2) Depleted Matrix (F1) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Reduced Vent (F18) Black Hyster (A8) (LRR F, G, H) Depleted Dark Surface (F7) Net Availage (F16) S orm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 'Vent Shallow Dark Surface (TF12) S orm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) 'Vent (Explain in Remarks) Type: Depleted Dark Surface (TF12) 'Vent (State) (Matrix (S4) Restrictive Layer (if present): (MLR 72 & 73 of LRR H) 'Vent (State) Matrix (S4) No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil Hydrology Indicators: Santrace Water (A1) Santrace Water (C1) Surface Soil Cracks (B6) Spratey Vegetated Concave Surface (B8) Spratey Vegetated Concave Surface (B8) S									
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.) Indicators for Problematic Hydric Soils ¹ : Histicsol (A1) Sandy Cleved Matrix (S4) I or Muck (A9) (LRR F, G, H) Histic Epideon (A2) Sandy Redvo (S5) Coast Prairie Redvo (A16) (LRR F, G, H) Hydrogen Sufficie Layers (A5) (LRR F, G, H) Loamy Gleved Matrix (F2) Lucamy Gleved Matrix (F2) I or Muck (A9) (LRR F, G, H) Depleted Matrix (F2) Lucamy Gleved Matrix (F2) Depleted Bolw Dark Surface (A12) Depleted Dark Surface (F6) Sandy Mucky Mineral (S1) Redox Depressions (F6) 2.5 or Mucky Peat or Peat (S2) (LRR F, G, H) High Plains Depressions (F16) Mucky Peat or Peat (S2) (LRR F, G, H) High Plains Depressions (F16) S or Mucky Peat or Peat (S2) (LRR F, G, H) High Plains Depressions (F16) Type:	¹ Type: C=C	oncentration. D=De	pletion. RM=F	Reduced Matrix. C	S=Covered	d or Coate	d Sand Gr	ains. ² Locati	on: PL=Pore Lining, M=Matrix.
Histosol (A1) Sandy Gleyed Matrix (S4) 1 cm Muck (A9) (LRR F, G, H) Biack Histic Expression Sandy Redox (S5) Dark Surface (S7) (LRR F, G, H) Biack Histic (A3) Loamy Mucky Mineral (F1) Dark Surface (S7) (LRR F, G, H) Depleted Below Dark Surface (A11) Depleted Matrix (S6) Histo Parent Material (TF2) Stratified Layers (A6) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Depleted Below Dark Surface (A11) Depleted Dark Surface (F7) Reduced Vertic (F18) S om Mucky Peat or Peat (S2) (LRR F, G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) S om Mucky Peat or Peat (S2) (LRR F, G, H) High Plains Depressions (F6) Otre (Explain in Remarks) *Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. No	Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless othe	erwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histic Epipedon (A2) Sandy Redox (S5) Cass Prainie Redox (A16) (LRR F, G, H) Biack Histic (A3) Stripped Matrix (S6) Dark Surface (S7) (LRR G) Hydrogen Sulfide (A4) Stripped Matrix (S6) High Plains Depressions (F16) Tartified Layers (A5) (LRR F, G, H) Depleted Matrix (F2) Redox Dark Surface (F7) Sandy Redox (S5) Depleted Matrix (F3) Redox Dark Surface (F1) Depleted Below Dark Surface (A11) Depleted Matrix (F3) Red Praemt Material (TF2) Sandy Mecky Mineral (S1) Depleted Dark Surface (F6) Depleted Dark Surface (F7) Sandy Mecky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: means No X No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Secondary Indicators (minimum of two required) Sutface Water (A1) Daylate Hixtory Reson Sutface (B1) Diverse on Living Roots (C3) Diverse on Living Roots (C3) Water Marks (B1) Dry-Season Water Table (C2) Dovidized Rhizcospheres on Living Roots (C3)		(A1)			Gleved Ma	atrix (S4)			ck (A9) (I BB I J)
Black Histic (A3) Black Histic (A3) Dark Surface (S7) (LRR 6) Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) Dight Plains Depressions (F16) I orm Muck (A9) (LRR F, G, H) Depleted Markix (F2) Red Parent Material (TF2) Depleted Bark Surface (A12) Depleted Dark Surface (F7) Red Parent Material (TF2) S andy Mucky Mineral (S1) Depleted Dark Surface (F7) Red Parent Material (TF2) S orm Mucky Peat or Peat (S2) (LRR F, H) High Plains Depressions (F16) Other (Explain in Remarks) Type: Depleted Dark Surface (T7) No X Multick Mineral (S1) Association of the second secon	Histic Fr	oipedon (A2)		Sandy	Redox (S5	i)		Coast Pra	airie Redox (A16) (LRR F. G. H)
Hydrogen Sullide (A4) Loamy Mucky Mineral (F1) High Plains Depressions (F16) 1 cm Muck (A9) (LRR F, G, H) Loamy Gleyed Matrix (F2) LRR H outside of MLRA 72 & 73) Pepleted Below Dark Surface (A11) Depleted Matrix (F2) Redvx Dark Surface (F7) Sandy Mucky Mineral (S1) Depleted Matrix (F2) Redvx Dark Surface (F7) S cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) "Indicators of hydrophytic vegetation and welland hydrology much be present, unless disturbed or problematic. Restrictive Layer (If present): Type:	Black Hi	istic (A3)			d Matrix (S	56)		Dark Surf	face (S7) (LRR G)
Stratified Layers (A5) (LRR F) Loamy Gleyed Matrix (F2) (LRR H outside of MLRA 72 & 73) Perform Stratified Layers (A5) (LRR F) Depleted Matrix (F2) Reduced Vertic (F18) Depleted Below Dark Strates (A11) Depleted Dark Surface (F7) Reduced Vertic (F18) Sandy Mucky Peat or Peat (S2) (LRR G, H) Depleted Dark Surface (F7) Reduced Vertic (F18) S or Mucky Peat or Peat (S2) (LRR F) (MLRA 72 & 73 of LRR H) "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:		en Sulfide (A4)			Mucky Mir	neral (F1)		High Plair	ns Depressions (E16)
1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F3) Reduced Vertic (F18) Depleted Below Dark Surface (A12) Redox Dark Surface (F6) Vertic (F18) Sandy Mucky Mineral (S1) Redox Dark Surface (F7) Redox Depressions (F8) S cm Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F16) Thick Dark Surface (F12) S cm Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F16) Thick Dark Surface (F12) No X Medization (MLRA 72 & 73 of LRR H) The Depleted Dark Surface (F12) No No X No X Restrictive Layer (If present): Yes No X Type:	Stratified	d Lavers (A5) (LRR	F)		Gleved Ma	atrix (F2)			Houtside of MLRA 72 & 73)
Depleted Below Dark Surface (A11) Redox Dark Surface (F6) Red Parent Material (TF2) Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Wert Stafface (A12) Stafface (A12) Sandy Mucky Peat or Peat (S2) (LRR G, H) High Plains Depressions (F8) Stafface (A12) Stafface (A12) Stafface (A12) Mucky Peat or Peat (S3) (LRR F) High Plains Depressions (F16) Stafface (A12) Stafface (A12) Restrictive Layer (if present): Type: High Plains Depressions (F16) Stafface (A12) No X Remarks: No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil Hydric Soil Present? Yes No X Primary Indicators: Primary Indicators (minimum of one required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) Sparsely Vegetated Concave Surface (B8) Sturtace Water (A1) Salt Crust (B11) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Drake Sturation (Xis) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Drake Sturation (Xis) Dry-Season Water Table (C2) Oxidize	1 cm Mu	uck (A9) (LRR F. G.	, H)		ed Matrix (I	F3)		Reduced	Vertic (F18)
□ Thick Dark Surface (A12) □ Depleted Dark Surface (F7) □ Very Shallow Dark Surface (TF12) □ Sady Mucky Mineral (S1) □ Depressions (F8) □ Other (Explain in Remarks) □ S cm Mucky Peat or Peat (S2) (LRR G, H) □ High Plains Depressions (F6) □ Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:	Depleted	d Below Dark Surfa	ce (A11)	Redox	Dark Surfa	ace (F6)		Red Pare	ent Material (TF2)
Sandy Mucky Mineral (S1) □ Redox Depressions (F8) □ Other (Explain in Remarks) Som Mucky Peat or Peat (S2) (LRR G, H) □ High Plains Depressions (F16) □ Notactors of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (If present): Type:	Thick Da	ark Surface (A12)		Deplete	ed Dark Su	irface (F7)		Very Sha	llow Dark Surface (TF12)
□ 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) S cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) (MLRA 72 & 73 of LRR H) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Type: Remarks: Hydric Soil Present? Yes No _X No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) High Water Table (A2) Surface Water (A1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Drif Deposits (B2) Drif Deposits (B2) Drif Deposits (B2) Drif Deposits (B2) Drif Deposits (B3) Water Araks (B1) Drif Nuck Surface (C7) Inon Deposits (B3) Water Stained Leaves (B9) Presence of Reduced Iron (C4) Drainage Patterns (D5) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No _X Depth (inches):	Sandy M	/lucky Mineral (S1)		Redox	Depressio	ns (F8)		🔲 Other (Ex	plain in Remarks)
□ 5 cm Mucky Peat or Peat (S3) (LRR F) (MLRA 72 & 73 of LRR H) wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type:	2.5 cm N	Mucky Peat or Peat	(S2) (LRR G,	H) High P	lains Depre	essions (F	16)	³ Indicators of	hydrophytic vegetation and
unless disturbed or problematic. Restrictive Layer (if present): Type:	5 cm Mu	ucky Peat or Peat (S	63) (LRR F)	(M I	LRA 72 & 7	73 of LRR	H)	wetland h	ydrology must be present,
Restrictive Layer (if present): Type:								unless dis	sturbed or problematic.
Type:	Restrictive	Layer (if present):							
Depth (inches):	Туре:								
Remarks: No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Sparsely Vegetated Concave Surface (B8) Saturation (A3) Hydrogen Sufide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Crayfish Burrows (C8) Halgal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Cher (Explain in Remarks) FAC-Neutral Test (D5) Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetlan	Depth (in	ches):						Hydric Soil Pr	esent? Yes <u>No X</u>
No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Aquatic Invertebrates (B13) High Water Table (A2) Aquatic Invertebrates (B13) Water Marks (B1) Dry-Season Water Table (C2) Water Marks (B1) Dry-Season Water Table (C2) Water Marks (B3) (where not tilled) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No Depth (inches): Saturation Present? Yes No Yes No Depth (inches): Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Water Table Present? Yes No X Depth (inches): Invertion increation; Surface Water Present? Yes <	Remarks:								
No redox features; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Surface Soil Cracks (B6) Saturation (A3) Hydrogen Sulfide Odor (C1) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Orifit Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No X Outcudes capillary fringe) D									
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where not tilled) Iron Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Geomorphic Position (D2) Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Geomorphic Positing Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Geomorphic Posent?	No redox	k features; Ti	nn clay, o	occasionally	/ floode	ed is na	tionally	v listed hvd	ric soil; naturally dark soil
HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) High Water Table (A2) Aquatic Invertebrates (B13) Saturation (A3) Hydrogen Sulfide Odor (C1) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Drift Deposits (B3) (where not tilled) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Other (Explain in Remarks) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Surface Water Present? Surface Water Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes <td< td=""><td colspan="8">the react reaction, this only, occusionally needed to hallohally noted tryand boil, hallohally dark boil</td></td<>	the react reaction, this only, occusionally needed to hallohally noted tryand boil, hallohally dark boil								
Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required) Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Patterns (B10) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Inon Deposits (B3) (where not tilled) Saturation Visible on Aerial Imagery (C9) Inon Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Yes No X Depth (inches): Yes Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Deprovide applary fringe) Depth (inches): Wetland Hydrology Present? Yes No X	HYDROLO	GY							
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Surface Water (A1) Salt Crust (B11) Surface Soil Cracks (B6) High Water Table (A2) Aquatic Invertebrates (B13) Drainage Patterns (B10) Vater Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Drift Deposits (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Inon Deposits (B5) Other (Explain in Remarks) FAC-Neutral Test (D5) Water Stained Leaves (B9) VesNoX Depth (inches): Water Table Present? YesNoX Depth (inches): Saturation Present? Yes	Primary India	cators (minimum of	one required;	check all that app	ly)			Secondary	Indicators (minimum of two required)
High Water Table (A2) Aquatic Invertebrates (B13) Water Table (A2) Aquatic Invertebrates (B13) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Drift Deposits (B2) Drift Deposits (B3) (where not tilled) Presence of Reduced Iron (C4) Iron Deposits (B5) Iron Deposits (B5) Other (Explain in Remarks) Field Observations: Surface Water Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes No X Depth (inches): Saturation Present? Yes <	Surface	Water (A1)		Salt Crust	t (B11)				e Soil Cracks (B6)
Inight Hadri Factor (ED) Inight Hadri Factor (ED) Inight Hadri Factor (ED) Saturation (A3) Inight Hydrogen Sulfide Odor (C1) Inight Hydrogen Sulfide Odor (C1) Inight Hydrogen Sulfide Odor (C1) Water Marks (B1) Inight Hydrogen Sulfide Odor (C1) Inight Hydrogen Sulfide Odor (C1) Inight Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled) Inight Hydrogen Sulfide Odor (C4) Algal Mat or Crust (B4) Inight Hydrogen Sulfide Odor (C1) Inight Hydrogen Sulfide Odor (C4) Saturation Visible on Aerial Imagery (C9) Inon Deposits (B5) Inin Muck Surface (C7) Inin Muck Surface (C7) Inin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Field Observations: Surface Water Present? Yes No Sutration Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No Saturation Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Inicide Saturation Present? Yes No X <td>High Wa</td> <td>ater Table (A2)</td> <td></td> <td></td> <td>vertebrate</td> <td>s (B13)</td> <td></td> <td></td> <td>ly Vegetated Concave Surface (B8)</td>	High Wa	ater Table (A2)			vertebrate	s (B13)			ly Vegetated Concave Surface (B8)
Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3) Water Marks (B3) (where not tilled) Crayfish Burrows (C8) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Saturation Visible on Aerial Imagery (C9) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water Stained Leaves (B9) Thin Mock Surface (C7) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Depth (inches): Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Depth		(A3)			Sulfide Or	dor $(C1)$			ge Patterns (B10)
Writer Matrix (B1) <td>Water M</td> <td>larks (B1)</td> <td></td> <td></td> <td>on Water T</td> <td>Table (C2)</td> <td></td> <td></td> <td>ad Rhizospheres on Living Roots (C3)</td>	Water M	larks (B1)			on Water T	Table (C2)			ad Rhizospheres on Living Roots (C3)
Sectiment Deposits (B2) Image: Charge and the construction of the construction o		at Doposite (B2)			Dhizocobo	roc on Liv	na Pooto		
Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Thin Muck Surface (C7) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Water-Stained Leaves (B9) Other (Explain in Remarks) Field Observations: Yes Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): (includes capillary fringe) Wetland Hydrology Present? Yes Describe Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No Describe Present? Yes No X Depth (inches):		$\frac{11}{2} \frac{1}{2} 1$			not tilled)		ng Roots i		
Algal Mat or Crust (B4) Image: Presence of Reduced from (C4) Image: Saturation Visible on Aerial Imagery (C9) Iron Deposits (B5) Image: Thin Muck Surface (C7) Image: Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) Image: FAC-Neutral Test (D5) Water-Stained Leaves (B9) Image: Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes Surface Water Present? Yes No X Water Table Present? Yes No X Saturation Present? Yes No X Cincludes capillary fringe) Depth (inches): Wetland Hydrology Present? Yes No Description Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Description Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Descriptions Descriptions Image: Present Present? Yes No X					not tilled)		`		Sin Bullows (Co)
Inon Deposits (B5) Inin Muck Surface (C7) Geomorphic Position (D2) Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Cincludes capillary fringe) Describe Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X		at or Crust (B4)			of Reduce	a Iron (C4	·)		tion visible on Aerial Imagery (C9)
Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5) Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No X Depth (inches): Ves Water Table Present? Yes No X Depth (inches): Ves Saturation Present? Yes No X Depth (inches): Ves Wetland Hydrology Present? Yes No X Depth (inches): (includes capillary fringe) Describe Present extra cauge monitoring well aerial photoe previous inspections) if available:		DOSITS (B5)			k Surface ((C7)			orphic Position (D2)
Water-Stained Leaves (B9) Frost-Heave Hummocks (D7) (LRR F) Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _X Saturation Present? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _X Describe Present? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _X		on Visible on Aerial	Imagery (B7)	U Other (Ex	plain in Re	emarks)		FAC-N	eutral Test (D5)
Field Observations: Surface Water Present? Yes No _X Depth (inches): Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): Water Complexity fringe) Wetland Hydrology Present? Yes No _X Descriptions Wetland Hydrology Present? Yes No _X	U Water-S	itained Leaves (B9)						Frost-F	Heave Hummocks (D7) (LRR F)
Surface Water Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Cincludes capillary fringe) Depth (aches): Wetland Hydrology Present? Yes No X	Field Obser	vations:		V					
Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Depth discrete previous inspections) If available: Yes No X	Surface Wate	er Present?	Yes No	o <u>^</u> Depth (ir	nches):		-		
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe)	Water Table	Present?	Yes No	o X Depth (ir	nches):		_		
(includes capillary fringe)	Saturation P	resent?	Yes No	o X Depth (ir	nches):		Wetla	and Hydrology P	Present? Yes <u>No X</u>
	(includes cap	oillary fringe)		itoring well period	nhotos pr	avious inc	nections)	if available:	




Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fannir	۱	Sampling Date: <u>6/2/2017</u>					
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP307					
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range:							
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, convex, none): Concave Slope							
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u>	.45337 Lor	ng: <u>-95.97666</u>	Datum: NAD83					
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classifica	tion: none					
Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.)								
Are Vegetation, Soil, or Hydrology significantly	Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No							
Are Vegetation, SoilX, or Hydrology naturally pr	oblematic? (If needed	l, explain any answers	in Remarks.)					
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locat	tions, transects,	important features, etc.					

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X Yes X	No No	Is the Sampled Area	Yes X	No
Wetland Hydrology Present?	Yes X	No			
Remarks:					

Heavy storms the previous day; depressional area associated with former channel scar; not hydraulically connected to any existing stream channel

7 00 <i>//</i>	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	15	Yes	FAC	(excluding FAC-): (A)
3. Ulmus americana	30	Yes	FAC	Total Number of Dominant
4				Species Across All Strata:3 (B)
	75	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC:(A/B)
1. Celtis laevigata	10	No	FAC	
2. Fraxinus pennsylvanica	10	No	FAC	Prevalence Index worksheet:
3. Ulmus americana	5	No	FAC	Total % Cover of: Multiply by:
4. Juniperus virginiana	5	No	UPL	OBL species x 1 =
5				FACW species x 2 =
···	30	- Total Cov		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)		- 10101 001		FACU species x 4 =
1. Toxicodendron radicans	3	No	FACU	UPL species x 5 =
2. Bignonia capreolata	2	No	FACU	Column Totals: (A) (B)
3				
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
3				1 - Rapid Test for Hydrophytic Vegetation
0				2 - Dominance Test is >50%
/				□ 3 - Prevalence Index is $\leq 3.0^{1}$
8				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weath Vine Strature (Distributed 450 Staff	5	= Total Cov	ver	¹ Indiactors of hydric soil and watland hydrology must
(Plot size: 400 sq ht)				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Para Ground in Harb Stratum 95	U	= Total Cov	ver	Present? Yes X No
nomuno.				

SOIL

Depth	Matrix		Red	ox Feature	s	<u>^</u>		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/1	95	10 YR 4/6	5	С	Μ	Clay	
				_				
					·		·	
							·	
							·	
							·	
I								
		onlation DA	Doduced Metrix		d ar Caata		21 or	
Type: C=C	Indicators: (Appl	epielion, Riv				eu Sanu G		for Problematic Hydric Soils ³ :
	I (A1)			Gleyed Ma	atrix (54)			Auck (A9) (LRR I, J)
	pipedon (A2)			Redox (55)))()			Prairie Redox (A16) (LRR F, G, H)
	ISTIC (A3)			ed iviatrix (3	50) aarol (E1)			Surface (S7) (LRR G)
	en Sulfide (A4)				neral (F1)			Plains Depressions (F16)
		КГ) ХП)						(R H OUISIGE OF MILRA 72 & 73)
	d Bolow Dark Surf	а, п) 200 (А11)		Dork Surfe	F3) 200 (E6)			aront Material (TE2)
	ark Surface (A12)	ace (ATT)		ad Dark Suild	urface (FO))		Shallow Dark Surface (TE12)
	Mucky Mineral (S1)			Denressio	ns (F8))		(Explain in Remarks)
	Mucky Peat or Pea	t (S2) (I RR		Plains Denre	essions (F	16)	³ Indicators	of hydrophytic vegetation and
5 cm M	ucky Peat or Peat ((S3) (I RR F) (M		73 of I RR	? H)	wetland	d hydrology must be present
		(00) (2) (,	unless	disturbed or problematic.
Restrictive	Laver (if present)							
Type:		-						
Type.	-h).						Ukudaia Cail	Dressent2 Vac X No
Depth (in	iches).						Hydric Soli	Present? fes No
Remarks:								
Redox fe	eatures prese	nt; Tinn	clay, occasior	hally floo	oded is	nation	ally listed h	hydric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicator	s:						
Primary Indi	cators (minimum o	f one require	ed; check all that app	oly)			Seconda	ary Indicators (minimum of two required)
	Water (A1)		Salt Crus	t (B11)			Surf	face Soil Cracks (B6)
High W	ater Table (A2)			nvertehrate	es (B13)			rsely Vegetated Concave Surface (B8)
	on $(\Delta 3)$			n Sulfide O	dor $(C1)$			inage Patterns (B10)
	Aarke (B1)			on Water 7	$\frac{1}{2} \sum_{i=1}^{n} \frac{1}{2} \sum_{i=1}^{n} \frac{1}$			dized Phizospheres on Living Poets (C3)
	naiks (DT)					ing Dooto		
	nt Deposits (B2)			Rnizospne	res on Liv	ing Roots	(C3) (W	(nere tilled)
	posits (B3)		(where	not tilled)				yfish Burrows (C8)
	at or Crust (B4)			e of Reduce	ed Iron (C4	4)		uration Visible on Aerial Imagery (C9)
	posits (B5)			k Surface ((C7)			omorphic Position (D2)
Inundati	ion Visible on Aeria	al Imagery (I	37) <u> </u>	kplain in Re	emarks)			C-Neutral Test (D5)
Water-S	Stained Leaves (B9)					L Fros	st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	ter Present?	Yes	No X Depth (i	nches):				
Water Table	Present?	Yes	No X Depth (i	nches):				
Saturation P	Present?	Yes	No X Depth (i	nches).		Wet	and Hydrolog	v Present? Yes X No
(includes ca	pillary fringe)	100		noneo)		_	inania riyarorog	
Describe Re	corded Data (strea	am gauge, n	nonitoring well, aeria	l photos, pr	evious ins	spections)	, if available:	
Remarks:								

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)





Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin		Sampling Date: 6/1/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP338
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range: _		
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conve	x, none): <u>Concave</u>	Slope (%): 0-1%
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u>	45173 Lon	g: <u>-95.9845</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	ation: none
Are climatic / hydrologic conditions on the site typical for this time of year Vegetation, Soil, or Hydrology significantly Are Vegetation, SoilX, or Hydrology naturally pr	ear? Yes X No	(If no, explain in Re al Circumstances" pr , explain any answer: ions, transects,	emarks.) resent? Yes <u>X</u> No s in Remarks.) important features, etc.
Hydrophytic Vegetation Present? Yes X No Hydric Soil Present? Yes No X Wetland Hydrology Present? Yes No X	Is the Sampled Area within a Wetland?	Yes	No <u></u>
Delineated during heavy rainfall, former chann	el scar		

700 (1	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Ulmus americana	20	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	40	Yes	FAC	(excluding FAC-): (A)
3. Fraxinus pennsylvanica	20	Yes	FAC	Total Number of Dominant
4.				Species Across All Strata: 4 (B)
	80	- Total Cov		Demonstrat Demoissant Operation
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- 10101000		That Are OBL EACW or EAC: 100 (A/B)
1. Celtis laevigata	15	No	FAC	
2 Fraxinus pennsylvanica	5	No	FAC	Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
3				OBL species x 1 =
4				FACW species x 2 =
5	20			FAC species x 3 =
Harb Stratum (Plat size, 450 Sq ft	20	= Total Cov	ver	
Viola missouriensis	10	No	FACW/	
2. Elymus virginica		res	FAC	Column I otals: (A) (B)
3. I oxicodendron radicans	5	No	FACU	Provalance Index - B/A -
4				Prevalence index = D/A =
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8				3 - Prevalence Index is $\leq 3.0^1$
0				4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
Weady Vine Stratum (Plat size, 450 S0 ft.)	35	= Total Cov	ver	¹ Indicators of hydric soil and wotland hydrology must
Woody Ville Stratum (Piot size. 100 og til)	5	No	FACU	be present, unless disturbed or problematic.
1. Dorthonosiasus guinguefelie				
2. Partnenocissus quinqueiolia		INO	FACU	Hydrophytic
87 D. O. H. H. J. C. J. 65	10	= Total Cov	ver	Present? Yes X No
% Bare Ground in Herb Stratum				
Kemarks:				

SUL

Profile Des	cription: (Describe	to the depth ne	eded to docu	nent the i	ndicator	or confirn	n the absence of	indicato	rs.)
Depth	Matrix		Redo	x Feature	S				
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type ¹	Loc ²	Texture		Remarks
0-18	10 YR 3/2	100					Clay		
·									
						. <u> </u>			
						. <u> </u>			
¹ Type: C=C	oncentration, D=Dep	pletion, RM=Redu	iced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Locat	ion: PL=F	Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRRs	, unless othe	rwise not	ed.)		Indicators fo	r Probler	natic Hydric Soils ³ :
Histosol	l (A1)		Sandy 🤇	Gleyed Ma	atrix (S4)		🔲 1 cm Mu	ck (A9) (L	RR I, J)
Histic E	pipedon (A2)		Sandy I	Redox (S5	5)		Coast Pra	airie Redo	ox (A16) (LRR F, G, H)
Black H	istic (A3)		Strippe	d Matrix (S	6)		Dark Sur	face (S7)	(LRR G)
Hydroge	en Sulfide (A4)			Mucky Mir	neral (F1)		High Plai	ns Depres	ssions (F16)
	d Layers (A5) (LRR	F)		Gleyed Ma	atrix (F2)			Houtside	e of MLRA 72 & 73)
	uck (A9) (LRR F, G,	H)		d Matrix (I	F3)			Vertic (F	18) al (TE2)
	ark Surface (A12)	e (ATT)		Dark Surra	асе (го) urfaco (Е7)			llow Dork	$\frac{dI(IFZ)}{Surface}$
	Mucky Mineral (S1)			Depression	ns (F8)			nlain in F	Surface (TFTZ)
	Mucky Peat or Peat ((S2) (I RR G. H)		ains Denre	essions (F	16)	³ Indicators of	hvdrophv	tic vegetation and
5 cm M	ucky Peat or Peat (S	3) (LRR F)	<u> </u>	RA 72 & 7	73 of LRR	H)	wetland h	vdroloav	must be present.
		-, (,	(unless di	sturbed o	r problematic.
Restrictive	Layer (if present):								'
Type:									
Depth (in	iches):						Hydric Soil Pr	esent?	Yes No X
Remarks:									
Remarks.									
No redo	x Tinn clav	occasion	ally floor	led is	nation	ally lig	sted hydric	soil	naturally dark soil
No reac		, 000031011			nation		stea nyano	501,	naturally dark soli
HYDROLO	GY								
Wotland Hy	drology Indicators								
)			Coordon	lu dia ata u	
Primary Indi	cators (minimum or c	one requirea; che		<u>y)</u>				Indicators	s (minimum of two required)
	Water (A1)		Salt Crust	(B11)				e Soil Cra	acks (B6)
	ater Table (A2)		Aquatic In	vertebrate	s (B13)		Sparse	ely Vegeta	ated Concave Surface (B8)
	ion (A3)		Hydrogen	Sulfide O	dor (C1)			ge Patter	ns (B10)
Water N	/larks (B1)		Dry-Seaso	on Water T	able (C2)			ed Rhizos	pheres on Living Roots (C3)

Oxidized Rhizospheres on Living Roots (C3)

(where not tilled)

Thin Muck Surface (C7)

Yes _____ No __X Depth (inches): __

Yes No X Depth (inches):

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Yes _____ No ____ Depth (inches): _____

Other (Explain in Remarks)

Presence of Reduced Iron (C4)

US Army Corps of Engineers

Remarks:

Drift Deposits (B3)

Algal Mat or Crust (B4)

Iron Deposits (B5)

Field Observations:

Surface Water Present?

Water Table Present?

Saturation Present? (includes capillary fringe)

Sediment Deposits (B2)

Water-Stained Leaves (B9)

Inundation Visible on Aerial Imagery (B7)

(where tilled)

Crayfish Burrows (C8)

FAC-Neutral Test (D5)

Geomorphic Position (D2)

Wetland Hydrology Present? Yes ____ No X

Saturation Visible on Aerial Imagery (C9)

Frost-Heave Hummocks (D7) (LRR F)



Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin		Sampling Date: 6/1/2017			
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP339			
Investigator(s):	Section, Township, Range: _					
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conve	x, none): <u>Concave</u>	Slope (%): 0-1%			
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u>	.45203 Long	g: <u>-95.98456</u>	Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	cation: none			
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in R	emarks.)			
Are Vegetation, Soil, or Hydrology significantly disturbed? Are "Normal Circumstances" present? Yes X No						
Are Vegetation, Soil X, or Hydrology naturally problematic? (If needed, explain any answers in Remarks.)						
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locat	ions, transects	, important features, etc.			
Hydrophytic Vegetation Present? Yes _X No Hydric Soil Present? Yes No _X Wetland Hydrology Present? Yes No _X	Is the Sampled Area within a Wetland?	Yes	No <u>X</u>			
Remarks:	÷					
Delineated during heavy rainfall; former chanr	nel scar					

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Morus rubra	25	Yes	FACU	That Are OBL, FACW, or FAC
2. Fraxinus pennsylvanica	45	Yes	FAC	(excluding FAC-): 3 (A)
3.				Total Number of Dominant
4				Species Across All Strata:4 (B)
T	70	Total Car		
Sapling/Shrub Stratum (Plot size: 700sq ft)			/er	Percent of Dominant Species
1 Celtis laevigata	10	No	FAC	
2 Fraxinus pennsylvanica	20	Yes	FAC	Prevalence Index worksheet:
2. Morus rubra	10	No	FACU	Total % Cover of: Multiply by:
			17100	OBL species x 1 =
4			·	FACW species x 2 =
5				
450 sq ft	40	= Total Cov	/er	
Herb Stratum (Plot size: 400 sq m	10	No	EAC	FACU species X 4 =
			FAC	UPL species x 5 =
2. Toxicodendron radicans	5	NO	FACU	Column Totals: (A) (B)
3. Ambrosia trifida	20	Yes	FAC	Provalance Index - B/A -
4				Hudronbutio Venetation Indicatores
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 ¹
0				4 - Morphological Adaptations ¹ (Provide supporting
5			······	data in Remarks or on a separate sheet)
10	25		<u> </u>	Problematic Hydrophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft)	55	= I otal Cov	/er	¹ Indicators of hydric soil and wetland hydrology must
Toxicodendron radicans	5	No	FACU	be present, unless disturbed or problematic.
Parthenocissus quinquefolia	5	No	FACU	
2	10		17.00	Hydrophytic Vegetation
% Raro Ground in Horb Stratum 65	10	= Total Cov	/er	Present? Yes X No
Remarks:				
Bulliessed free trunks				

Depth	Matrix	0/	Rede	ox Feature	es T	12	Tautom	Demont -
(Inches) 0-12	10 VR 2/1	%	Color (moist)	%	Type	LOC	<u> </u>	Remarks
12 10	10 TR 2/1		10 VP 5/2	20				depletions below 12 inches
12-10	10 fR 2/1	00	10 TR 5/2	20	<u> </u>		Clay	depietions below 12 inches
							. <u> </u>	
¹ Type: C=C	oncentration, D=De	epletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. ² l o	cation: PI =Pore Lining, M=Matrix,
Hydric Soil	Indicators: (Appl	icable to all	LRRs, unless othe	rwise not	ed.)		Indicators	for Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm N	Muck (A9) (LRR I, J)
Histic Ep	pipedon (A2)		Sandy	Redox (St	5)		Coast	Prairie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)		Strippe	d Matrix (S6)		Dark S	Surface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High F	Plains Depressions (F16)
	Layers (A5) (LRF	КР) : Н)		Gleyed M d Matrix (atrix (F2)			CR H OUTSIDE OF MLRA 72 & 73)
	d Below Dark Surfa	ace (A11)		Dark Surfa	ace (F6)		Red P	arent Material (TF2)
Thick Da	ark Surface (A12)	~ /	Deplete	ed Dark Su	urface (F7))	🔲 Very S	Shallow Dark Surface (TF12)
Sandy N	lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other	(Explain in Remarks)
2.5 cm N	Aucky Peat or Pea	t (S2) (LRR	G, H) 🛄 High Pl	ains Depr	essions (F	16)	°Indicators	of hydrophytic vegetation and
	ICKY Peat or Peat (53) (LRR F)	(IVIL	.RA /2 &	73 OF LRR	H)	wetian	a nyarology must be present, disturbed or problematic
Restrictive I	Layer (if present):						unicae	
Type:	, ,							
Depth (in	ches):						Hydric Soil	Present? Yes <u>No X</u>
Remarks:								
Does not fit	any of the hydr	ric soil indi	cators. Tinn Clay	occasio	nally floo	oded, is a	a nationally li	sted hydric soil. Naturally dark soils
	GY							
Wetland Hy	drology Indicator	e.						
Primary India	cators (minimum of	s. Fone require	d: check all that ann	lv)			Second	any Indicators (minimum of two required)
	Water (Δ1)		Salt Crust	(B11)				face Soil Cracks (B6)
	ater Table (A2)			vertebrate	es (B13)			arsely Vegetated Concave Surface (B8)
	on (A3)			Sulfide O	dor (C1)			inage Patterns (B10)
U Water M	larks (B1)		Dry-Seas	on Water ⁻	Table (C2)			dized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)			Rhizosphe	eres on Liv	ing Roots	(C3) (v	vhere tilled)
Drift Dep	oosits (B3)		(where	not tilled))		Cra Cra	yfish Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)		uration Visible on Aerial Imagery (C9)
Iron Dep	oosits (B5)			< Surface	(C7)			omorphic Position (D2)
Inundati	on Visible on Aeria	I Imagery (B	7) 🔟 Other (Ex	plain in Re	emarks)			C-Neutral Test (D5)
Water-S	tained Leaves (B9)					L Fro	st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:	Vee						
Surface wat	er Present?	Yes	No <u>X</u> Depth (ir	icnes):				
Water Table	Present?	res	No <u>X</u> Depth (ir	icnes):		-		
(includes cap	pillary fringe)	res	No <u>~</u> Depth (Ir	icnes):		vvet	iand Hydrolog	y Present? resNo
Describe Re	corded Data (strea	m gauge, m	onitoring well, aerial	photos, pi	reviou s ins	pections),	if available:	
Danal								
Remarks:								





Project/Site: Lake Ralph Hall	_ City/County: I	adonia/Fannin	Sampling Date: <u>6/1/2017</u>	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP343	
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	nship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	Slope (%):	
Subregion (LRR): Southwest Prairies Lat: 3	3.45285	Long: <u>-95.98395</u>	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	cation: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X	No (If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significan	tly disturbed?	Are "Normal Circumstances"	present? Yes X No	
Are Vegetation, SoilX, or Hydrology naturally	problematic?	(If needed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showin	ng sampling	point locations, transects	s, important features, etc.	
Linderschutig Verstetige Descent?				

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No <u>X</u>	within a Wotland?	Vos	No X
Wetland Hydrology Present?	Yes	No <u>X</u>		165	
Remarks:			•		

Delineated during heavy rainfall. Old tributary to former N. Sulphur channel. Channel full of grass, no OHWM

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>700 sq ft</u>)	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species
1. Celtis laevigata	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Fraxinus pennsylvanica	40	Yes	FAC	
3				Total Number of Dominant
4				Species Across All Strata:4 (B)
	70	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 100 (A/B)
1. Celtis laevigata	5	No	FAC	
2. Fraxinus pennsylvanica	20	Yes	FAC	Prevalence Index worksheet:
3. Ulmus americana	1	No	FAC	Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
···	35	- Total Cov	or	FAC species x 3 =
Herb Stratum (Plot size: ^{450 sq ft})		- 10101000	CI	FACU species x 4 =
1. Elymus virginica	60	Yes	FAC	UPL species x 5 =
2. Carex blanda	5	No	FAC	Column Totals: (A) (B)
3 Ambrosia trifida	15	No	FAC	
4				Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
3	·			1 - Rapid Test for Hydrophytic Vegetation
0	·			2 - Dominance Test is >50%
/				□ 3 - Prevalence Index is $\leq 3.0^{1}$
8	·			4 - Morphological Adaptations ¹ (Provide supporting
9				data in Remarks or on a separate sheet)
10	·			Problematic Hydrophytic Vegetation ¹ (Explain)
150 sg ft	80	= Total Cov	er	
Woody Vine Stratum (Plot size: 430 sq ft)	F	Nie	FACU	be present, unless disturbed or problematic.
1. Smilax bona-nox	5		FACU	
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic
20	10	= Total Cov	er	Present? Yes X No
% Bare Ground in Herb Stratum 20				
Kemarks.				

Profile Desc	ription: (Describe	to the depth ne	eded to docur	nent the i	ndicator	or confirm	n the absence of indicators.)
Depth	Matrix		Redo	x Features	6		
(inches)	Color (moist)	% Co	olor (moist)	%	Type ¹	Loc ²	Texture Remarks
0-18	10 YR 3/2	100					Clay
		·		·			
		·		·			
		·		·		·	·
		· ·					
17	D Doo	lation DM Dade	and Matrix CC				
	Indicators: (Applic		unloss othor		d)	u Sanu Gi	Indicators for Problematic Hydric Soils ³ :
					trive (CA)		
	(AI)			Dedex (SE)	unx (54)		\square 1 Cm Muck (A9) (LRR I, J)
	stic $(A2)$			Motrix (SS)) (6)		$\square \text{ Dark Surface (S7)} (IPP C)$
	suc (A3) on Sulfide (ΔA)			Mucky Min	oral (F1)		High Plains Depressions (E16)
	1 avers (A5) (I RR F	=)		Gloved Ma	riv (F2)		(I BB H outside of MI BA 72 & 73)
	ick (A9) (IRREG) H)		d Matrix (F	=3)		
	d Below Dark Surface	•) e (A11)		Dark Surfa	ce (F6)		Red Parent Material (TF2)
Thick Da	ark Surface (A12)			d Dark Su	rface (F7)		Very Shallow Dark Surface (TF12)
Sandy M	luckv Mineral (S1)			Depression	ns (F8)		Other (Explain in Remarks)
2.5 cm N	Aucky Peat or Peat (S2) (LRR G, H)	High Pla	ains Depre	ssions (F	16)	³ Indicators of hydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S3	B) (LRR F)	(ML	RA 72 & 7	3 of LRR	H)	wetland hydrology must be present,
	,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			,	unless disturbed or problematic.
Restrictive	Layer (if present):						
Type:							
Depth (in	ches):						Hvdric Soil Present? Yes No X
Remarks:							,
Remarks.							
No redo	x Tinn clay	occasion	ally floor	led is i	nation	ally lig	sted bydric soil: naturally dark sc
	x. Thin day,	000031011			nation		sice flyence son, flaterally dark se
HYDROLO	GY						
Wetland Hv	drology Indicators:						
Primary India	cators (minimum of o	ne required: che	ck all that appl	V)			Secondary Indicators (minimum of two required
	Water (A1)			(B11)			
	$\frac{1}{2} \frac{1}{2} \frac{1}$			(DTT)	o (P12)		Sparaely Vagatated Capacity Surface (D2)
					5 (DIJ)		
	on (A3)		Hydrogen	Suilide Oc	or (C1)		Urainage Patterns (B10)

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
Surface Water (A1)	Surface Soil Cracks (B6)
High Water Table (A2)	Sparsely Vegetated Concave Surface (B8)
Saturation (A3) Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2)	Roots (C3) (where tilled)
Drift Deposits (B3) (where not tilled)	Crayfish Burrows (C8)
Algal Mat or Crust (B4)	Saturation Visible on Aerial Imagery (C9)
Iron Deposits (B5)	Geomorphic Position (D2)
Inundation Visible on Aerial Imagery (B7)	FAC-Neutral Test (D5)
Water-Stained Leaves (B9)	Frost-Heave Hummocks (D7) (LRR F)
Field Observations:	
Surface Water Present? Yes No X Depth (inches):	
Water Table Present? Yes <u>No X</u> Depth (inches):	
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes NoX
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:
Remarks:	



Project/Site: Lake Ralph Hall	City/County: L	_adonia/Fannin	Sampling Date: <u>6/1/2017</u>	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP347	
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	nship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	Slope (%):	
Subregion (LRR): Southwest Prairies	t: 33.45366	5366 Long: -95.98271 Datum:		
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classific	cation: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X	No (If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology signifi	cantly disturbed?	Are "Normal Circumstances"	present? Yes X No	
Are Vegetation, Soil _ X, or Hydrology natura	ally problematic?	(If needed, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transects	s, important features, etc.	

Hydrophytic Vegetation Present?	Yes X	No	Is the Sampled Area		
Hydric Soil Present?	Yes	No X	within a Wetland?	Vos	No X
Wetland Hydrology Present?	Yes	No <u>X</u>		103	
Remarks:					

Delineated during heavy rainfall. Old tributary to former N. Sulphur channel. Channel full of grass, no OHWM

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft)	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Celtis laevigata	15	No	FAC	That Are OBL, FACW, or FAC
2. Fraxinus pennsylvanica	20	Yes	FAC	
3. Ulmus americana	45	Yes	FAC	Total Number of Dominant
4				Species Across All Strata:4 (B)
	80	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or FAC: 75 (A/B)
1. Celtis laevigata	5	No	FAC	
2. Fraxinus pennsylvanica	10	No	FAC	Prevalence Index worksheet:
3. Ulmus americana	25	Yes	FAC	Total % Cover of:Multiply by:
Ulmus crassifolia	5	No	FAC	OBL species x 1 =
5	_			FACW species x 2 =
	45	Total Car		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft)			er	FACU species x 4 =
Ampelopsis arborea	15	No	FAC	UPL species x 5 =
2 Chasmanthium latifolium	70	Yes	FACU	Column Totals: (A) (B)
2				
S				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				\square 3 - Prevalence Index is <3 0 ¹
8				$\square 4 \text{Marphelesiae} \text{Adentations}^1 (\text{Dravide supporting})$
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation ¹ (Explain)
	85	= Total Cov	er	
Woody Vine Stratum (Plot size: 450 sq ft)				¹ Indicators of hydric soil and wetland hydrology must
1. Smilax bona-nox	5	No	FACU	be present, unless disturbed or problematic.
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic
	10	= Total Cov	rer	Vegetation
% Bare Ground in Herb Stratum 15				Present? Yes <u>^</u> No
Remarks:				·

Profile Desc	ription: (Describe	to the depth nee	eded to docum	nent the in	ndicator o	or confirm	the absence of	f indicators	i.)	
Depth	Matrix		Redox Features							
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type ¹	Loc ²	Texture		Remarks	
0-18	10 YR 3/2	100					Clay			
¹ Type: C=Co	oncentration, D=Depl	letion, RM=Redu	ced Matrix, CS	=Covered	or Coate	 d Sand Gr	ains. ² Locat	tion: PL=Pa	ore Lining, M=	-Matrix.
Hydric Soil	Indicators: (Applica	able to all LRRs	, unless other	wise note	ed.)		Indicators fo	or Problema	atic Hydric S	oils ³ :
Histosol Histic Ep Black Hi Hydroge Stratified 1 cm Mu Depleted Thick Da Sandy M 2.5 cm Mu	(A1) bipedon (A2) stic (A3) in Sulfide (A4) d Layers (A5) (LRR F , d Below Dark Surface ark Surface (A12) Mucky Mineral (S1) Mucky Peat or Peat (S3)	[:]) H) ∋ (A11) S2) (LRR G, H) 3) (LRR F)	Sandy G Sandy R Stripped Loamy N Depleted Redox D Depleted Redox D High Pla (MLF	Bleyed Ma Redox (S5) Mucky Min Bleyed Ma d Matrix (F Dark Surfa d Dark Surfa Depression ins Depre RA 72 & 7	trix (S4) 6) eral (F1) ttrix (F2) 73) ce (F6) rface (F7) hs (F8) ssions (F ⁻ 3 of LRR	16) H)		ick (A9) (LR rairie Redox rface (S7) (l ins Depress Houtside of Vertic (F18 ent Material allow Dark S xplain in Re f hydrophytic hydrology m isturbed or p	R I, J) (A16) (LRR LRR G) ions (F16) of MLRA 72 8) (TF2) Surface (TF12 marks) c vegetation a ust be present problematic.	F, G, H) & 73) ?) and ht,
Restrictive I	_ayer (if present):									
Туре:										
Depth (ind	ches):						Hydric Soil P	resent?	Yes	No
Remarks:										

No redox. Tinn Clay, occasionally flooded, is a nationally listed hydric soil.

HYDROLOGY

Wetland Hydrology Indicat	ors:						
Primary Indicators (minimum	Primary Indicators (minimum of one required; check all that apply) Secondary Indicators (minimum of two required)						
Surface Water (A1)		Salt Crust (B11)	Surface Soil Cracks (B6)				
High Water Table (A2)		Aquatic Invertebrates (B13)	Sparsely Vegetated Concave Surface (B8)				
Saturation (A3)		Hydrogen Sulfide Odor (C1)	Drainage Patterns (B10)				
Water Marks (B1)		Dry-Season Water Table (C2)	Oxidized Rhizospheres on Living Roots (C3)				
Sediment Deposits (B2)		Oxidized Rhizospheres on Living I	Roots (C3) (where tilled)				
Drift Deposits (B3)		(where not tilled)	Crayfish Burrows (C8)				
Algal Mat or Crust (B4)		Presence of Reduced Iron (C4)	Saturation Visible on Aerial Imagery (C9)				
Iron Deposits (B5)		Thin Muck Surface (C7)	Geomorphic Position (D2)				
Inundation Visible on Ae	rial Imagery (B7)	Other (Explain in Remarks)	FAC-Neutral Test (D5)				
Water-Stained Leaves (B9)		Frost-Heave Hummocks (D7) (LRR F)				
Field Observations:							
Surface Water Present?	Yes No	DX_ Depth (inches):					
Water Table Present?	Yes No	Depth (inches):					
Saturation Present? (includes capillary fringe)	Yes No	D X Depth (inches):	Wetland Hydrology Present? Yes No _X				
Describe Recorded Data (str	eam gauge, mon	itoring well, aerial photos, previou s inspec	ions), if available:				
Remarks:							