

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)
<b>700</b> <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 <sup>1</sup>
0				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10	70			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	70	= Total Cov	/er	<sup>1</sup> 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 <sup>30</sup>		= 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 <sup>2</sup>	Texture	Remarks
0-18	10 YR 3/2	100			·		Clay	
					. <u></u>			
					·			
					·			
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, RM=Red	uced Matrix, C	S=Covere	d or Coate	ed Sand Gi	rains. <sup>2</sup> 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 <sup>3</sup> :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🛄 1 cm Mu	ick (A9) ( <b>LRR I, J</b> )
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Coast Pr	rairie Redox (A16) ( <b>LRR F, G, H</b> )
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)	<sup>3</sup> Indicators of	hydrophytic vegetation and
5 cm M	ucky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	RA 72 &	73 of LRR	<b>H</b> )	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 <sup>1</sup>
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (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 <sup>1</sup>	Loc <sup>2</sup>	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. <sup>2</sup> 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 <sup>3</sup> :
- Histoso	ol (A1)		Sandv	Gleved Mat	trix (S4)		🗌 1 cm Muo	ck (A9) ( <b>LRR I. J</b> )
Histic E	Epipedon (A2)		Sandy	Redox (S5)	)		Coast Pra	airie Redox (A16) ( <b>LRR F, G, H</b> )
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) ( <b>LRR G,</b> I	H) 🛄 High P	Plains Depre	ssions (F	16)	Indicators of	hydrophytic vegetation and
5 cm M	lucky Peat or Peat (S	3) ( <b>LRR F</b> )	( <b>M</b> )	LRA 72 & 7	3 of LRR	<b>H</b> )	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	<sup>,</sup> 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	<sup>,</sup> 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)	<sup>r</sup> 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 <b>not tilled</b> )	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 <b>not tilled</b> ) 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 <b>a not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>a not tilled</b> ) 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)
Type: Depth (ir Remarks: Earthworm YDROLC Wetland Hy Primary Ind Surface High W Saturat Water N Saturat Drift De Algal M Iron De Inundat Kield Obse Surface Wa Water Table	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? Ye e Present? Ye	lox features	present; Tinn	clay, occa oly) st (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher <b>not tilled</b> ) of Reduced sk Surface (C 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 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: 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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
Type: Depth (ir Remarks: arthworm YDROLC Vetland Hy Primary Ind January Ind Surface High W Saturat Water I Sedime Drift De Algal M Iron De Inundal Water-S Surface Wa Vater Table Saturation F includes ca Describe Re	nches): ns present; No red DGY ydrology Indicators: icators (minimum of co e Water (A1) fater Table (A2) ion (A3) Marks (B1) ent Deposits (B2) eposits (B3) fat or Crust (B4) eposits (B5) tion Visible on Aerial Stained Leaves (B9) rvations: ter Present? Y Present? Y eportsent? Y eportsent? Y apillary fringe) ecorded Data (stream	lox features	present; Tinn	clay, occa bly) tt (B11) nvertebrates n Sulfide Od son Water Ta Rhizospher <b>not tilled</b> ) e of Reduced k Surface (( kplain in Rer nches): nches): nches): I photos, pre	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 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 (Cere tilled) sh Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) leutral Test (D5) Heave Hummocks (D7) (LRR F) Present? Yes NoX



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: <sup>450</sup> 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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (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 <sup>1</sup>	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	
		_						
·								
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covere	ed or Coate	d Sand G	Grains. <sup>2</sup> 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 <sup>3</sup> :
	(A1)		Sandy	Gleyed M	atrix (S4)			Muck (A9) (LRR I, J)
	pipedon (A2)		Sandy	Redox (S	5) SC)			: Prairie Redox (A16) ( <b>LRR F, G, H</b> )
	n Sulfide (A4)			Mucky M	50) ineral (F1)			Plains Depressions (E16)
	d Lavers (A5) ( <b>LRR</b>	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 <sup>1</sup>
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		<u> </u>		data in Remarks or on a separate sheet)
10	45			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weedy Vine Stratum (Plat aize: 450 S0 ft )	15	= Total Cov	er	<sup>1</sup> 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 <sup>85</sup>	0	= Total Cov	er	Present? Yes X No
Remarks:				

	Matrix		Redo	x Features		_		
(inches)	Color (moist)	%	Color (moist)	<u>%</u> T	ype <sup>1</sup> Loc <sup>2</sup>	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 <sup>3</sup> :
	(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) ( <b>LRR G</b> , 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) ( <b>LRR F</b> )	(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	<sub>№ _</sub> 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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: <sup>450</sup> 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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
150 sq.ft	10	= Total Cov	er	<sup>1</sup> 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 <sup>1</sup>	$lcc^2$	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. <sup>2</sup> 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) ( <b>LRR</b>	F)	Loamy	Gleyed Ma	atrix (F2)		(LI	RR H outside of MLRA 72 & 73)
📕 1 cm Mւ	uck (A9) (LRR F, G	, <b>H</b> )		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) ( <b>I RR</b>		ains Depre	essions (F	16)	<sup>3</sup> Indicators	of hydrophytic vegetation and
5 cm Μι	icky Peat or Peat (	(02) ( <b>LRR F</b>	) ( <b>M</b> 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 <b>not tilled</b> )	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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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 <b>not tilled</b> ) 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) <sup>c</sup> 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 <b>not tilled</b> ) 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 <sup>1</sup> (Provide supporting		
9				data in Remarks or on a separate sheet)		
10				Problematic Hydrophytic Vegetation <sup>1</sup> (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
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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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	S
0-18	10 YR 3/1	100					Clay		
			· · · · · · · · · · · · · · · · · · ·						
·						<u> </u>			
			· · · · · · · · · · · · · · · · · · ·						
·						<u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=D	epletion, RN	I=Reduced Matrix,	CS=Covered	d or Coate	ed Sand Gi	rains. <sup>2</sup> 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 <sup>3</sup> :
Histosol	(A1)		Sand	y Gleyed Ma	trix (S4)		🛄 1 cm I	Muck (A9) ( <b>LRR I, J</b> )	
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) ( <b>LR</b>	<b>R F</b> )	Loam	y Gleyed Ma	atrix (F2)			RR H outside of MLRA	. 72 & 73)
	uck (A9) (LRR F, (	<b>G, H</b> )		ted Matrix (F	=3)			ced Vertic (F18)	
	d Below Dark Sur	ace (A11)		x Dark Surfa	ice (F6)			Parent Material (TF2)	
	ark Surface (A12)	<b>`</b>		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) ( <b>LRR F</b>	) (N	ILRA / 2 & /	3 OF LRR	<b>H</b> )	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:					<b>a</b> 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 <del>s</del> 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: <sup>450</sup> 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 <sup>1</sup> (Provide suppo	ortina
9				data in Remarks or on a separate sheet)	Jiang
10			. <u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (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 <sup>1</sup>		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>	·			
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	irains. <sup>2</sup> 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)	<sup>3</sup> Indicators	(Explain in Remarks)
5 cm Mi	ucky Peat or Peat (S	(02) ( <b>LRR F</b> )	( <b>M</b> 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 <sup>.</sup> 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) <b>where tilled</b> )
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) <b>rvations:</b> 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) <b>rvations:</b> 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) <b>rvations:</b> 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) <b>rvations:</b> 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) <b>rvations:</b> 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) <b>rvations:</b> 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 <b>not tilled</b> ) 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) <b>rvations:</b> 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 <sup>1</sup>	
9				4 - Morphological Adaptations <sup>1</sup> (Provide supp data in Remarks or on a separate sheet)	orting
10				Problematic Hydrophytic Vegetation <sup>1</sup> (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 <sup>1</sup>	Loc <sup>2</sup>	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. <sup>2</sup> 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) ( <b>LRR I, J</b> )		
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) ( <b>LRI</b>	<b>R F</b> )	Loamy	Gleyed M	atrix (F2)			RR H outside of MLRA 72 & 73)		
📙 1 cm Mı	uck (A9) ( <b>LRR F, G</b>	<b>i, H</b> )		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) ( <b>LRR</b>	<b>G, H</b> ) <u></u> High P	lains Depr	essions (F	16)	Indicators	of hydrophytic vegetation and		
5 cm Mi	ucky Peat or Peat	(S3) ( <b>LRR F</b>	) (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 <del>s</del> 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: <sup>450 sq ft</sup> )				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 <sup>1</sup>	
9				4 - Morphological Adaptations <sup>1</sup> (Provide suppor data in Remarks or on a separate sheet)	rting
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
	65	= Total Cov	/er		
<u>Woody Vine Stratum</u> (Plot size: <u>450 sq ft</u> )				<sup>1</sup> 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	

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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 <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	10 YR 2/1	100					Clay			
·										
·										
<sup>1</sup> Type: C=Co	oncentration, D=De	pletion, RM=F	Reduced Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. <sup>2</sup> 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 <sup>3</sup> :		
Histosol	(A1)		Sandy	Gleyed Ma	trix (S4)		🔲 1 cm Mi	uck (A9) ( <b>LRR I, J</b> )		
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) ( <b>LRR</b>	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) ( <b>LKK</b> 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 <sup>-</sup> ).		(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>&lt; 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 <sup>1</sup> (Provide sup	porting
10.					agotation <sup>1</sup> (Evalui	n)
	100	= Total Cov	er		egetation (Explai	11)
Woody Vine Stratum (Plot size: 450 sq ft )			0.	<sup>1</sup> 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 <sup>1</sup>	Loc <sup>2</sup>	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								·	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> 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 <sup>1</sup> :         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:	<sup>1</sup> Type: C=C	oncentration. D=De	pletion. RM=F	Reduced Matrix. C	S=Covered	d or Coate	d Sand Gr	ains. <sup>2</sup> 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 <sup>3</sup> :
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 <b>BB</b> 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)	<sup>3</sup> Indicators of	hydrophytic vegetation and
unless disturbed or problematic.         Restrictive Layer (if present):         Type:	5 cm Mu	ucky Peat or Peat (S	63) ( <b>LRR F</b> )	( <b>M</b> 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							
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)         Water Marks (B1)       Dry-Season Water Table (C2)       Oxidized Rhizospheres on Living Roots (C3)       (where tilled)         Drift Deposits (B2)       Oxidized Rhizospheres on Living Roots (C4)       Crayfish Burrows (C8)       Saturation Visible on Aerial Imagery (C9)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Saturation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       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):       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         Describe apagerded Data (stream gauge, monitoring well, aarial photos, previous insprection?)       if avai	Wetland Hy	drology Indicators	:						
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	ו	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

<b>7</b> 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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weath Vine Strature (Distributed 450 Staff	5	= Total Cov	ver	<sup>1</sup> 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 <sup>1</sup>	Loc <sup>2</sup>	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 <sup>3</sup> :
	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)
		<b>КГ</b> ) ХП)			$r_{2}$			(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) ( <b>I RR</b>		Plains Denre	essions (F	16)	<sup>3</sup> Indicators	of hydrophytic vegetation and
5 cm M	ucky Peat or Peat (	(S3) (I RR F	) (M		73 of I RR	? <b>H</b> )	wetland	d hydrology must be present
		(00) (2	) (			,	unless	disturbed or problematic.
Restrictive	Laver (if present)							
Type:		-						
Type.	-h ).						Ukudaia Cail	Dressent2 Voc 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	st (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)		_	liana nyarorog	
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.) <b>important features, etc.</b>
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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weady Vine Stratum (Plat size, 450 S0 ft.)	35	= Total Cov	ver	<sup>1</sup> 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
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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 <sup>1</sup>	Loc <sup>2</sup>	Texture		Remarks
0-18	10 YR 3/2	100					Clay		
·									
						·			
						·			
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM=Redu	iced Matrix, C	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> 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 <sup>3</sup> :
Histosol	l (A1)		Sandy 🤇	Gleyed Ma	atrix (S4)		🔲 1 cm Mu	ck (A9) ( <b>L</b>	RR I, J)
Histic E	pipedon (A2)		Sandy I	Redox (S5	5)		Coast Pra	airie Redo	ox (A16) ( <b>LRR F, G, H</b> )
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) ( <b>I RR G. H</b> )		ains Denre	essions (F	16)	<sup>3</sup> 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				Hudrophytic Veretation Indicators
5				Hydrophytic Vegetation Indicators:
6.				1 - Rapid Test for Hydrophytic Vegetation
7.				2 - Dominance Test is >50%
8				3 - Prevalence Index is ≤3.0 <sup>1</sup>
0				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
5			······	data in Remarks or on a separate sheet)
10	25		<u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	55	= I otal Cov	/er	<sup>1</sup> 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	Demonto
(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>	IVI	Clay	depietions below 12 inches
							. <u> </u>	
<sup>1</sup> Type: C=C	oncentration, D=De	epletion, RM	=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. <sup>2</sup> 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 <sup>3</sup> :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm N	Muck (A9) ( <b>LRR I, J</b> )
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	n 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) ( <b>LRR</b>	G, H) 🛄 High Pl	ains Depr	essions (F	16)	°Indicators	of hydrophytic vegetation and
	ICKY Peat or Peat (	53) ( <b>LRR F</b> )	(IVIL	.RA /2 &	73 OF LRR	<b>H</b> )	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 <sup>-</sup>	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 <del>s</del> ins	pections),	if available:	
Danal								
Remarks:								





Project/Site: Lake Ralph Hall	_ City/County: I	_adonia/Fannin	Sampling Date: 6/1/2017
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	concave, 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
<u>Sapling/Shrub Stratum</u> (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC:(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: <sup>450 sq ft</sup> )		- 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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10	·			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
150 sg ft	80	= Total Cov	er	
Woody Vine Stratum (Plot size: 400 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 <sup>1</sup>	Loc <sup>2</sup>	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 <sup>3</sup> :
					trive (CA)		
	(AI)			Dedex (SE)	unx (54)		$\square$ 1 Cm Muck (A9) ( <b>LRR I, J</b> )
	stic $(A2)$			Motrix (SS)	) (6)		$\square \text{ Dark Surface (S7)} (IPP C)$
	suc (A3) on Sulfide ( $\Delta A$ )			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) (IRREGE	) 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)	<sup>3</sup> 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)	Drainage Patterns (B10)		
Water Marks (B1)	Oxidized Rhizospheres on Living Roots (C3)		
Sediment Deposits (B2) Oxidized Rhizospheres on Living	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 <u>No X</u> Depth (inches):			
Water Table Present?       Yes No _X _ Depth (inches):			
Saturation Present? Yes <u>No X</u> Depth (inches): (includes capillary fringe)	Wetland Hydrology Present? Yes No _X		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspec	tions), if available:		
Remarks:			



Project/Site: Lake Ralph Hall	City/County: La	adonia/Fannin	Sampling Date: 6/1/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP347
Investigator(s): <u>Jason Voight</u> , Andrew Sample	Section, Towns	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (cc	oncave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	33.45366	Long: <u>-95.98271</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	antly disturbed?	Are "Normal Circumstances" p	oresent? Yes X No
Are Vegetation, SoilX, or Hydrology natural	lly problematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	ving sampling p	point locations, transects	, 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>		163	
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	(excluding FAC-): (A)
3. Ulmus americana	45	Yes	FAC	Total Number of Dominant
4				Species Across All Strata: (B)
	80	= 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. 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 )				FACU species x 4 =
Ampelopsis arborea	15	No	FAC	UPL species x 5 =
2 Chasmanthium latifolium	70	Yes	FACU	Column Totals: (A) (B)
2				
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				1 = 0 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	85	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft )				Indicators of hydric soil and wetland hydrology must
1. Smilax bona-nox	5	No	FACU	be present, unless disturbed of problematic.
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic
	10	= Total Cov	ver	Vegetation
% Bare Ground in Herb Stratum <u>15</u>				Present? Yes <u>NO</u>
Remarks:				

Profile Desc	ription: (Describe	to the depth nee	eded to docum	nent the in	ndicator	or confirm	the absence of	indicators.)		
Depth	Matrix		Redox	k Features	8					
(inches)	Color (moist)	<u>%</u> Co	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Rem	arks	_
0-18	10 YR 3/2	100					Clay			
										-
<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=Redu	iced Matrix, CS	=Covered	l or Coate	d Sand Gr	ains. <sup>2</sup> Locati	ion: PL=Pore Lini	ing, M=Matrix.	-
Hydric Soil Histosol Histic Ep Black Hi Hydroge Stratified 1 cm Mu Depletee Thick Da Sandy M 2.5 cm Mu	Indicators: (Applic: (A1) bipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) (LRR F uck (A9) (LRR F, G, F d Below Dark Surface ark Surface (A12) Aucky Mineral (S1) Aucky Peat or Peat (S3)	able to all LRRs H) e (A11) S2) (LRR G, H) 3) (LRR F)	, unless other Sandy G Sandy R Stripped Loamy N Loamy C Depleted Redox D Depleted Redox D High Pla (MLF	wise note Gleyed Ma Redox (S5) Mucky Min Gleyed Ma d Matrix (F Dark Surfa d Dark Surfa d Dark Surfa Depression ins Depre RA 72 & 7	ed.) trix (S4) 6) eeral (F1) ttrix (F2) F3) ce (F6) rface (F7) hs (F8) essions (F 73 of LRR	16) <b>H</b> )	Indicators for 1 cm Muc Coast Pra Dark Surf High Plair (LRR I Reduced Red Pare Very Shal Other (Ex <sup>3</sup> Indicators of wetland hy unless dis	r Problematic Hy ck (A9) (LRR I, J) airie Redox (A16) face (S7) (LRR G ns Depressions (F H outside of MLI Vertic (F18) ent Material (TF2) llow Dark Surface cplain in Remarks hydrophytic vege ydrology must be sturbed or probler	<pre>/dric Soils<sup>3</sup>: (LRR F, G, H) = = = = = = = = = = = = = = = = = = =</pre>	
Restrictive I	Layer (if present):									
Туре:										
Depth (in	ches):						Hydric Soil Pro	esent? 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 <del>s</del> inspec	ions), 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: WP349
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): Concave	e Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	at: 33.4538	Long: <u>-95.98113</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classif	ication: PFO1A
Are climatic / hydrologic conditions on the site typical for this tim	ne of year? Yes X	No (If no, explain in	Remarks.)
Are Vegetation, Soil, or Hydrology signi	ficantly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, SoilX, or Hydrology nature	rally problematic?	(If needed, explain any answ	vers in Remarks.)
SUMMARY OF FINDINGS – Attach site map sho	owing sampling	point locations, transect	s, important features, etc.
Hydrophytic Vegetation Present?       Yes X       No         Hydric Soil Present?       Yes No         Wetland Hydrology Present?       Yes X       No	X Is the within	Sampled Area a Wetland? Yes	No <u></u>

Remarks:

Delineated during heavy rainfall. Former N. Sulphur channel.

	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq ft )	% Cover	Species?	Status	Number of Dominant Species
1. <u>Celtis laevigata</u>	40	Yes	FAC	That Are OBL, FACW, or FAC
2. Fraxinus pennsylvanica	30	Yes	FAC	(excluding FAC-): $5$ (A)
3. Ulmus americana	20	Yes	FAC	Total Number of Dominant
4				Species Across All Strata:6 (B)
	90	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: 83 (A/B)
1. Celtis laevigata	20	Yes	FAC	Describer of the last state of the
2				Prevalence index worksneet:
3.				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5.				FACW species x 2 =
	20	= Total Cov	er	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )			0.	FACU species x 4 =
1. <u>Viola missouriensis</u>	5	No	FACW	UPL species x 5 =
2. Chasmanthium latifolium	30	Yes	FACU	Column Totals: (A) (B)
3. Elymus virginicus	15	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 $\leq 3.0^1$
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		<u> </u>		data in Remarks or on a separate sheet)
10	50			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	50	= I otal Cov	rer	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 Smilax bona-nox	5	No	FACU	be present, unless disturbed or problematic.
<ul> <li>Parthenocissus quinquefolia</li> </ul>	5	No	FACU	Hydronhytic
<u> </u>	10	– Total Cov		Vegetation
% Bare Ground in Herb Stratum 50		- 10(a) 000		Present? Yes X No
Remarks:				1

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)											
Depth	Matrix		Redo	x Feature	s						
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	_Loc <sup>2</sup>	Texture	Remarks			
0-8	10 YR 3/2	100					Clay				
8-18	10 YR 5/2	80					Clay	20 % Mottles of 10 YR 3/2			
·					·		·				
·					·						
					·		·				
					·						
<u> </u>							. <u> </u>				
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM=Re	educed Matrix, C	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise not	ed.)		Indicators	s for Problematic Hydric Soils <sup>3</sup> :			
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm I	Muck (A9) ( <b>LRR I, J</b> )			
Histic Ep	pipedon (A2)		Sandy	Redox (S5	5)		Coast	Prairie Redox (A16) (LRR F, G, H)			
🔲 Black Hi	stic (A3)		Strippe	d Matrix (S	56)		🔲 Dark 🕄	Surface (S7) (LRR G)			
Hydroge	n Sulfide (A4)		Loamy	Mucky Mir	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 Mu	ick (A9) (LRR F, G,	H)		ed Matrix (	F3)		Reduc	ced Vertic (F18)			
Depleted	d Below Dark Surfac	æ (A11)	Redox	Dark Surfa	ace (F6)		Red F	Parent Material (TF2)			
Thick Da	ark Surface (A12)			ed Dark Su	Irface (F7)		Very S	Shallow Dark Surface (TF12)			
Sandy N	lucky Mineral (S1)			Depressio	ns (F8)		Other (Explain in Remarks)				
2.5 cm M	Aucky Peat or Peat	(S2) (LRR G, H	H) L High Pl	ains Depre	essions (F	16)	Indicators of hydrophytic vegetation and				
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 & 1	73 of LRR	<b>H</b> )	wetland hydrology must be present,				
Destriction	(16						unless	s disturbed or problematic.			
Restrictive	_ayer (if present):										
Type:			_					×			
Depth (in	ches):						Hydric Soi	I Present? Yes No ^			
Remarks:							-				
Does not matc	h any hydric soil indic	ators. Tinn Clay,	occasionally flood	ed, is a nati	onally listed	d hydric soil	l. naturally dark	soil; Earthworms and grubs present in soil core.			
HYDROLO	GY										
Wetland Hy	drology Indicators	:									
Primary India	cators (minimum of o	one required; c	heck all that app	y)			Second	ary Indicators (minimum of two required)			
Surface	Water (A1)		Salt Crust	(B11)			🔲 Sur	face Soil Cracks (B6)			
High Wa	ter Table (A2)		Aquatic In	vertebrate	s (B13)		🗹 Spa	arsely Vegetated Concave Surface (B8)			
Saturatio	on (A3)		Hvdrogen	Sulfide O	dor (C1)			ainage Patterns (B10)			
✓ Water M	arks (B1)		Drv-Seaso	on Water 1	Table (C2)			dized Rhizospheres on Living Roots (C3)			
	nt Deposits (B2)			Rhizosphe	res on Liv	ina Roots	(C3) (V	where tilled)			
	(B3)		(where	not tilled)		ing receic		avfish Burrows (C8)			
	at or Crust (B4)			of Reduce	d Iron (C4	1)		uration Visible on Aerial Imagery (C9)			
	nosite (B5)			Surface (	(C7)	*)		omorphic Position (D2)			
	on Visible on Aorial	Imagany (P7)			(Or)			C Noutral Tast (D5)			
	tained Leaves (B0)	inagery (D7)			ina koj			est Hoovo Hummocks (DZ) (I PP E)			
Eield Obser	tailled Leaves (D3)					- T	<u> </u>				
Field Obser	vations:	<i>′</i>	X D U U								
Surface Wat	er Present?	res No	Depth (in	cnes):							
Water Table	Present?	es No	Depth (in	ches):		_		V			
Saturation P	resent?	res No	X Depth (in	ches):		_ Wetl	and Hydrolog	gy Present? Yes <u>^</u> No			
(Includes cap	corded Data (stream		oring well aerial	nhotos pr	avious ins	nections)	if available:				
Describerte		r gaage, monit	oning wen, aenai	priotos, pr		peotiono),	ii availabio.				
Demonstra											
Remarks:											





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: WP350
Investigator(s): Jason Voight, Andrew Sample	_ Section, Township, Range:
Landform (hillslope, terrace, etc.): Valley	_ Local relief (concave, convex, none): Concave Slope (%): 0-1%
Subregion (LRR): Southwest Prairies Lat: 33	3.45273 Long: <u>-95.98159</u> Datum: <u>NAD83</u>
Soil Map Unit Name: Tinn Clay, Occasionally Flooded	NWI classification: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of y Are Vegetation, Soil, or Hydrology significantl Are Vegetation, Soil _X, or Hydrology naturally p SUMMARY OF FINDINGS – Attach site map showin	year? Yes X       No (If no, explain in Remarks.)         y disturbed?       Are "Normal Circumstances" present? Yes X       No (If needed, explain any answers in Remarks.)         g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes X       No         Hydric Soil Present?       Yes No       X         Wetland Hydrology Present?       Yes X       No         Remarks:       Delineated during heavy rainfall.	- Is the Sampled Area - within a Wetland? Yes <u>No X</u>

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:			
<u>Tree Stratum</u> (Plot size: $700 \text{ sq } \pi$ )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species			
	_ 5	<u>N0</u>	FAC	That Are OBL, FACW, or FAC	、 、		
2. Fraxinus pennsylvanica	10	No	FAC	(excluding FAC-): (A)	)		
3. Ulmus americana	10	No	FAC	Total Number of Dominant			
4. Ulmus crassifolia	35	Yes	FAC	Species Across All Strata: 6 (B)	J		
<i>(</i> ,	60	= Total Cov	/er	Percent of Dominant Species			
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: 83 (A/I	B)		
1. Celtis laevigata	20	Yes	FAC	December of the december of the based			
2. Fraxinus pennsylvanica	15	Yes	FAC	Prevalence Index worksheet:			
3. Symphoricarpos orbiculatus	15	Yes	FACU	Total % Cover of:Multiply by:			
4.				OBL species x 1 =			
5.				FACW species x 2 =			
	50	- Total Cov	/er	FAC species x 3 =			
Herb Stratum (Plot size: 450 sq ft )		- 10101 00		FACU species x 4 =			
1. Amaranthus tuberculatus	25	Yes	FAC	UPL species x 5 =			
2. Torilis arvensis	5	No	UPL	Column Totals: (A) (B	3)		
3 Elymus virginicus	15	Yes	FAC		,		
A Ambrosia trifida	5	No	FAC	Prevalence Index = B/A =			
5				Hydrophytic Vegetation Indicators:			
				1 - Rapid Test for Hydrophytic Vegetation			
0				2 - Dominance Test is >50%			
/				$\square$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>			
8				4 - Morphological Adaptations <sup>1</sup> (Provide supportin	ing		
9				data in Remarks or on a separate sheet)	Ũ		
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)			
Weader)/inc. Otratium (Dist since 450 sq ft	50	= Total Cov	/er	<sup>1</sup> Indiactors of hydric coil and watland hydrology must			
Woody Vine Stratum (Plot size:				be present, unless disturbed or problematic.			
1							
2				Hydrophytic			
% Bare Ground in Herb Stratum 50	0	= Total Cov	/er	Present? Yes <u>X</u> No <u>Yes</u>			
Remarks:							

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Profile Desc	Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix		Redo	x Features					
(inches)	Color (moist)	<u>%</u> C	olor (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture Remarks	_	
0-18	10 YR 3/1	100					Clay		
								-	
						<u> </u>		-	
		<u> </u>						-	
	-							-	
								-	
								-	
								_	
								-	
17	D D	lation DM Dad	used Matrix Of				21 agentions DL Dave Lizing M Matrix	-	
	Indiactoral (Applic		uced Matrix, Ca	S=Covered	or Coate	d Sand Gr	Indicators for Problematic Hydric Soils <sup>3</sup> :		
					u.)				
	(A1)			Sleyed Mat	rix (S4)		$\square 1 \text{ cm Muck (A9) (LRR I, J)}$		
	bipedon (AZ)			Redox (SS)	2)				
	Black Histic (A3)				High Plains Depressions (E16)				
	en Sulfide (A4)	-			eral (F1)		High Plains Depressions (F16)		
	d Layers (A5) (LRR I	F)		Gleyed Mai	trix (F2)		(LRR H outside of MLRA /2 & /3)		
	$\square$ 1 cm Muck (A9) (LRR F, G, H) $\square$ Depleted Matrix (F3)					Reduced Vertic (F18)			
	d Below Dark Surfac	e (A11)		Dark Surfac	ce (F6)		Red Parent Material (TF2)		
	ark Surface (A12)		Deplete	d Dark Sur	face (F7)		Very Shallow Dark Surface (TF12)		
Sandy M	lucky Mineral (S1)			Depression	s (F8)		$\square_{2}$ Other (Explain in Remarks)		
2.5 cm N	Mucky Peat or Peat (	S2) (LRR G, H)	L High Pla	ains Depres	ssions (F	16)	Indicators of hydrophytic vegetation and		
5 cm Mu	ucky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	RA 72 & 73	3 of LRR	H)	wetland hydrology must be present,		
							unless disturbed or problematic.		
Restrictive I	Layer (if present):								
Туре:									
Depth (in	ches):						Hydric Soil Present? Yes <u>No X</u>		
Remarks:									
No redo	x. Tinn Clay,	occasiona	ally floode	ed, is a	natio	nally li	isted hydric soil; naturally dark soi		
	· · ·		<b>,</b>						
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary India	cators (minimum of c	one required; che	eck all that appl	y)			Secondary Indicators (minimum of two required)	)	
Surface	Water (A1)		Salt Crust	(B11)		_	Surface Soil Cracks (B6)		
High W/s	ater Table (A2)			vertebrates	(B13)		Sparsely Vegetated Concave Surface (B8)		
					(210)				

Primary Indicators (minimum	of one required; ch	neck 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 (C			
Sediment 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)			
Iron Deposits (B5)		Thin Muck Surface (C7)	Geomorphic Position (D2)			
Inundation Visible on Aeri	al Imagery (B7)	U Other (Explain in Remarks)	FAC-Neutral Test (D5)			
Water-Stained Leaves (B	9)		Frost-Heave Hummocks (D7) (LRR F)			
Field Observations:						
Surface Water Present?	Yes No _	X Depth (inches):				
Water Table Present?	Yes No _	X Depth (inches):				
Saturation Present? (includes capillary fringe)	Yes No _	X Depth (inches):	Wetland Hydrology Present? Yes X No			
Describe Recorded Data (stre	am gauge, monito	ring well, aerial photos, previou <del>s</del> inspec	tions), if available:			
Remarks:						





Project/Site: Lake Ralph Hall	City/County: I	Ladonia/Fannin	Sampling Date: 6/1/2017				
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: WP351				
Investigator(s): Jason Voight, Andrew Sample	Section, Towr	Section, Township, Range:					
Landform (hillslope, terrace, etc.): Valley	Local relief (c	Local relief (concave, convex, none): Concave Slope (%					
Subregion (LRR): Southwest Prairies	t: <u>33.45274</u>	Long: <u>-95.97993</u>	Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classification: PFO1A					
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 signifi	cantly disturbed?	Are "Normal Circumstances"	' present? Yes X No				
Are Vegetation, SoilX_, or Hydrology natura	Illy problematic?	roblematic? (If needed, explain any answers in Remarks.)					
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transect	s, important features, etc.				
Hydrophytic Vegetation Present?       Yes       X       No         Hydric Soil Present?       Yes       X       No         Wetland Hydrology Present?       Yes       X       No         Remarks:       No       X       No	Is the within	Sampled Area a Wetland? Yes	< <u>No</u>				
Nomano.							

Former North Sulphur channel acting as an active channel

	Absolute	Dominant	Indicator	Dominance Test worksheet:		
Tree Stratum (Plot size: 700 sq ft )	% Cover	Species?	Status	Number of Dominant Species		
1. Fraxinus pennsylvanica	15	No	FAC	That Are OBL, FACW, or FAC		
2. Acer negundo	75	Yes	FAC	(excluding FAC-):	1	(A)
3				Total Number of Dominant		
4.				Species Across All Strata:	1	(B)
	90	= Total Cov	/er	Porcent of Dominant Species		
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC:	100	(A/B)
1. <u>Acer negundo</u>	15	No	FAC			· · /
2. Ulmus americana	5	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: <sup>450</sup> sq ft )			/ei	FACU species x	(4 =	_
1. Carex blanda	2	No	FAC	UPL species	(5 =	
2. Elymus virginica	5	No	FAC	Column Totals: (/	۹)	(B)
3. Toxicodendron radicans	2	No	FACU			
4.				Prevalence Index = B/A =	:	_
5				Hydrophytic Vegetation Indica	ators:	
6				1 - Rapid Test for Hydrophy	/tic Vegetation	
7				2 - Dominance Test is >50%	%	
0				3 - Prevalence Index is ≤3.0	0 <sup>1</sup>	
0				4 - Morphological Adaptatic	ons <sup>1</sup> (Provide sup	porting
9				data in Remarks or on a	separate sheet)	
10				Problematic Hydrophytic Ve	∋getation <sup>1</sup> (Explai	in)
Woody Vine Stratum (Plot size: 450 sq ft )	9	= Total Cov	/er	<sup>1</sup> Indicators of hydric soil and we	tland hydrology r	nust
(1 101 Stratum (1 101 Size)				be present, unless disturbed or	problematic.	nuot
1				- Understanding		
2		Tatal Oa		Vegetation		
% Bare Ground in Herb Stratum 91		= I otal Cov	Present? Yes X No			
Remarks:				•		

Profile Desc	ription: (Describe	to the dept	h needed to docu	ment the	indicator	or confir	rm the absence	e of indicators.)			
Depth	Matrix	<u> </u>	Redo	x Feature	es						
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type	Loc	Texture	Remarks			
0-8	10 YR 3/1	100									
8-18	10 YR 4/2	95	10 YR 4/6	5	C	M	Clay	Redox past 8 inches			
·											
·											
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, C	S=Covere	ed or Coate	d Sand (	Grains. <sup>2</sup> Lo	cation: PL=Pore Lining, M=Matrix.			
Hydric Soil	Indicators: (Applic	able to all L	RRs, unless othe	rwise no	ted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :			
Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		🔲 1 cm I	Muck (A9) ( <b>LRR I, J</b> )			
Histic Ep	pipedon (A2)		Sandy Sandy	Redox (S	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)			Mucky M	ineral (F1)		High F	Plains Depressions (F16)			
	d Layers (A5) (LRR	F)		Gleyed N	latrix (F2)			RR H outside of MLRA 72 & 73)			
	ICK (A9) (LRR F, G, d Bolow Dork Surfac	H)		ed Matrix	(F3)			ced Vertic (F18)			
	ark Surface (A12)	e (ATT)		Dark Sull	urface (FO)			Shallow Dark Surface (TE12)			
Sandy M	Aucky Mineral (S1)			Depressio	ns (F8)			(Explain in Remarks)			
2.5 cm N	Aucky Peat or Peat	(S2) ( <b>LRR G</b>	. H) High Pl	ains Depi	ressions (F	16)	<sup>3</sup> Indicators of hydrophytic vegetation and				
🔲 5 cm Mu	icky Peat or Peat (S	3) ( <b>LRR F</b> )	, , <u> </u>	RA 72 &	73 of LRR	H)	wetland hydrology must be present,				
		, , ,	·				unless	s disturbed or problematic.			
Restrictive	Layer (if present):										
Туре:								X			
Depth (in	ches):						Hydric Soi	l Present? Yes X No			
Remarks:							•				
Redox fe	atures presen	it; Linn c	lay, occasion	ally flo	oded is	natior	hally listed	hydric soil; naturally dark soil			
	GY										
		_									
	atoro (minimum of		- abaak all that ann	LA			Second	on Indiantors (minimum of two required)			
		one required						face Seil Create (BC)			
	vvater (A1)			(B11)				Tace Soll Cracks (B6)			
	ater Table (A2)			Vertebrat	es (B13)			arsely vegetated Concave Surface (B8)			
	on (A3)			Suifide C	Jaor (C1)			Inage Patterns (B10)			
	iarks (B1)			on vvater	able (C2)			aizea Knizospheres on Living Roots (C3)			
	nt Deposits (B2)			Rhizosph	eres on Liv	ing Roots	s (C3) (V	vhere tilled)			
	DOSITS (B3)		(where	not tilled	)	• \		In Burrows (C8)			
	at or Crust (B4)			of Reduc	ed Iron (C4	1)		uration Visible on Aerial Imagery (C9)			
	oosits (B5)			Surface	(C7)			omorphic Position (D2)			
	on Visible on Aerial	Imagery (B7	) 🔟 Other (Ex	plain in R	emarks)			C-Neutral Test (D5)			
Water-S	tained Leaves (B9)						L Fro	st-Heave Hummocks (D7) (LRR F)			
Field Obser	vations:	, .	X								
Surface Wat	er Present?	(es N	lo <u> </u>	iches):		-					
Water Table	Present?	(es N	lo <u>^</u> Depth (in	iches):		-		· · · X · ·			
Saturation P	resent?	(es N	lo <u>^</u> Depth (in	iches):		_   We	tland Hydrolog	jy Present? Yes <u>^</u> No			
Describe Re	corded Data (stream	n gauge, moi	nitoring well, aerial	photos, p	reviou <del>s</del> ins	pections	), if available:				
Remarks:											



Project/Site: Lake Ralph Hall Supplemental JD	_ City/County: Ladonia/Fannin Sampling Date: 5/31/		
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 404
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): Southwest Prairies Lat: 33	.46224 Lon	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	ation: PFO1A
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 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? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes <u>x</u>	No <u>×</u> No <u>×</u> No	Is the Sampled Area within a Wetland?	Yes	No <u>×</u>
Remarks:					

700 #	Absolute	Dominant	Indicator	Dominance Test worksheet:
Tree Stratum (Plot size: 700 sq It )	<u>% Cover</u>	<u>Species?</u>	<u>Status</u>	Number of Dominant Species
1. Fraxinus pennsylvanica	95	Yes	FAC	That Are OBL, FACW, or FAC
2. Maclura pomifera	2	No	FACU	(excluding FAC-): (A)
3. Celtis laevigata	2	No	FAC	Total Number of Dominant
4				Species Across All Strata: 2 (B)
	99	= Total Cov	/er	Percent of Dominant 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	5	No	FAC	Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4				OBL species x 1 =0
				FACW species x 2 =0
5	10	Tatal Oa		FAC species $107$ $x = 321$
Herb Stratum (Plot size: 450 sq ft )	10	= Total Cov	/er	FACU species $\frac{2}{x}$ $x = \frac{8}{x}$
1 Lolium multiflorum	50	Yes	UPL	LIPL species $50 \times 5 = 250$
				$\begin{array}{c} column Totals; 159 \\ \hline \end{array} (A) 579 \\ \hline \end{array} (B)$
2				$\frac{1}{2} = \frac{1}{2} = \frac{1}$
3				Prevalence Index = $B/A = 3.64$
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				$\square$ 2 Dominance Test is $>50\%$
7				
8				$\square$ 3 - Prevalence index is $\leq 3.0$
9				4 - Morphological Adaptations' (Provide supporting
10.				
	50	- Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft )		- 10101 001		<sup>1</sup> 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 50		10101 001		Present? Yes <u>No X</u>
Remarks:				1

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Profile Des	cription: (Describe	to the depth n	eeded to docu	ment the i	indicator	or confirm	n the absence	of indicato	rs.)	
Depth (inchos)	Matrix Color (moist)	0/ (	Redo	ox Features	S Typo <sup>1</sup>	$1 \text{ oc}^2$	Toxturo		Pomarka	
			Joior (moist)	%	<u>Type</u>	LOC			Remarks	
0-10	10 1K 3/1	90			·	. <u> </u>	Clay			
					·					
					·					
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM=Red	duced Matrix, C	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> Loo	cation: PL=F	Pore Lining, N	1=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRR	s, unless othe	rwise not	ed.)		Indicators	for Problem	natic Hydric	Soils <sup>3</sup> :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🛄 1 cm N	/luck (A9) ( <b>L</b>	RR I, J)	
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Coast	Prairie Redo	ox (A16) ( <b>LRR</b>	t <b>F, G, H</b> )
Black H	istic (A3)			d Matrix (S	56)		Dark S	Surface (S7)	(LRR G)	
Hydroge	en Sulfide (A4)	<b>F</b> \		Mucky Mir	neral (F1)		High P	lains Depres	ssions (F16)	
		F) H)		Gleyeu Ma d Matrix (I	aunx (r∠) F3)			ed Vertic (E	18)	2 & 73)
	d Below Dark Surfac	ce (A11)		Dark Surfa	ace (F6)			arent Materia	al (TF2)	
Thick D	ark Surface (A12)		Deplete	d Dark Su	urface (F7)	)	Very S	hallow Dark	Surface (TF1	2)
Sandy N	/lucky Mineral (S1)		Redox	Depressio	ns (F8)		Other	(Explain in R	(emarks)	
2.5 cm l	Nucky Peat or Peat	(S2) ( <b>LRR G, H</b> )	) 📙 High Pl	ains Depre	essions (F	16)	<sup>3</sup> Indicators	of hydrophy	tic vegetation	and
5 cm M	ucky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	.RA 72 & 7	73 of LRR	<b>H</b> )	wetlan	d hydrology	must be pres	ent,
							unless	disturbed or	r problematic.	
Restrictive	Layer (if present):									
I ype:			-					_		<b>X</b>
Depth (in	ches):		-				Hydric Soil	Present?	Yes	No <u>^</u>
Remarks:										
No rodo	v footuros: Tir	an clay oc	casionally	floodo	d ie na	tionally	listod by	tric soil.	naturally	dark soils
	k leatures, Th	In clay, oc	casionally	nooue	u 15 11a	lionally	/ iisteu riyt	une son,	naturany	Uark Suis
HYDROLO	GY									
Wetland Hy	drology Indicators									
Primary Indi	cators (minimum of	one required: ch	eck all that ann				Seconda	ary Indicator	s (minimum o	f two required)
	Water ( $\Delta 1$ )			(B11)		<u> </u>		ace Soil Cra	ocke (B6)	<u>rtwo required)</u>
	$\operatorname{Table}(A2)$			(DTT) vertebrate	e (B13)				icks (DU)	Surface (B8)
	on $(A3)$			Sulfide Or	dor $(C1)$			nade Patter	ns (R10)	Gunace (BO)
Water M	larks (B1)		Dry-Seaso	on Water T	Cable (C2)			lized Rhizos	no (Bro)	ving Roots (C3)
	nt Deposits (B2)			Rhizosphe	res on Liv	ina Roots	(C3) ( <b>w</b>	here tilled)	p	
Drift De	posits (B3)		(where	not tilled)		ing ricete		vfish Burrow	s (C8)	
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)	Satu	, uration Visibl	le on Aerial In	nagery (C9)
	posits (B5)		Thin Muck	surface (	(C7)	,	Geo Geo	morphic Pos	sition (D2)	0,00,00
Inundati	on Visible on Aerial	Imagery (B7)	Other (Ex	plain in Re	emarks)			-Neutral Te	st (D5)	
Water-S	stained Leaves (B9)						Eros	st-Heave Hu	mmocks (D7)	(LRR F)
Field Obser	vations:									
Surface Wat	er Present?	/es No	C Depth (in	ches):						
Water Table	Present?	/es No _	C Depth (in	ches):						
Saturation P	resent?	/es No <sup>&gt;</sup>	Depth (in	ches):		Wetl	and Hydrolog	y Present?	Yes X	No
(includes ca	pillary fringe)		· · · ·			_				
Describe Re	corded Data (stream	n gauge, monito	rıng well, aerial	photos, pr	evious ins	pections),	it available:			

Remarks:

outside edge of former channel scar





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladoni	Ladonia/Fannin Sampling Date: 5/31/17					
Applicant/Owner: Upper Trinity Regional Water District		State: TX	_ Sampling Point: <u>WP 405</u>				
Investigator(s): Jason Voight, Andrew Sample	Section, Township,	Range:					
Landform (hillslope, terrace, etc.): Valley	_ Local relief (concav	e, convex, none): <u>Concave</u>	Slope (%): 0-1%				
Subregion (LRR): Southwest Prairies Lat: 3	3.46255	Long: <u>-95.91884</u>	Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifi	cation: PFO1A				
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes X No	o (If no, explain in F	Remarks.)				
Are Vegetation, Soil, or Hydrology significant	ly disturbed? Ar	re "Normal Circumstances"	present? Yes X No				
Are Vegetation, Soil x, or Hydrology naturally p	vroblematic? (If	needed, explain any answe	ers in Remarks.)				
SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.							
Hydrophytic Vegetation Present? Yes <u>x</u> No	- Is the Samp	led Area					

Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u>	No No	is the Sampled Area within a Wetland?	Yes X	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	65	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	5	No	FAC	$(\text{excluding FAC-}): \underline{2} \qquad (A)$
3				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. Fraxinus pennsylvanica	5	No	FAC	
2. Maclura pomifera	2	No	FACU	Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
A.				OBL species x 1 =
				FACW species x 2 =
D	7			FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )		= Total Cov	/er	FACU species x 4 =
1 Carex crus-corvi	70	Yes	OBL	
2				
3				Prevalence Index = B/A =
4				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				$\square$ 2 Dominance Test is $>50\%$
7				
8				$\square$ 3 - Prevalence index is $\leq 3.0$
9				4 - Morphological Adaptations' (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
450 ag th	70	= Total Cov	/er	1
Woody Vine Stratum (Plot size: 450 sq It )				Indicators of hydric soil and wetland hydrology must
1				
2				Hydrophytic
22	0	= Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 30				
Remarks:				

Depth	Matrix		Redo	ox Feature	es		_	
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 3/1	90	10 YR 4/6	10	С	Μ	Clay	
			·					
				_				
			·					
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matrix, C	S=Covere	d or Coat	ed Sand (	Grains. <sup>2</sup> Loo	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to a	I LRRs, unless othe	rwise no	ted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
	(A1)		Sandy	Gleved M	, atrix (S4)			Auck (A9) (I BB L J)
Histic F	ninedon (A2)		Sandy	Redax (S	5)			Prairie Redox (A16) (I RR F G H)
	istic (A3)			d Matrix (	5) S6)			Surface $(S7)$ (IPP G)
	Sulfide (A4)				Dorol (E1)	\ \		Plaine Depressions (E16)
						)		PLL autoida of MLDA 72 8 72)
	a Layers (A5) (LRR	(F)		Gleyed IV	atrix (FZ)			(R H OUTSIDE OF MLRA 72 & 73)
	JCK (A9) (LRR F, G	, H)		ed Matrix	(F3)			ed Vertic (F18)
	d Below Dark Surfa	ice (A11)	Redox	Dark Surf	ace (F6)	_,		arent Material (TF2)
	ark Surface (A12)			ed Dark S	urface (F	()		Shallow Dark Surface (TF12)
Sandy N	/lucky Mineral (S1)		Redox	Depressio	ons (F8)		Other	(Explain in Remarks)
2.5 cm l	Mucky Peat or Peat	: (S2) ( <b>LRR</b>	<b>G</b> , <b>H</b> ) <u></u> High Pl	ains Depr	essions (	F16)	°Indicators	of hydrophytic vegetation and
5 cm Mu	ucky Peat or Peat (	S3) ( <b>LRR F</b>	) (ML	.RA 72 &	73 of LR	<b>R H</b> )	wetlan	d hydrology must be present,
							unless	disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	ches):						Hvdric Soil	Present? Yes X No
Redox te	atures preser	nt; i inn	clay, occasiona	ally floo	baed is	natior	nally listed r	nydric soll; haturally dark soll.
HYDROLOGY								
Wetland Hy	drology Indicators	5:						
Primary Indi	cators (minimum of	one requir	ed; check all that app	ly)			Seconda	ary Indicators (minimum of two required)
	Water (A1)			(B11)				face Soil Cracks (B6)
					(D40)			
	ater Table (AZ)			vertebrate	es (B13)			Insely vegetated Concave Surface (B8)
└╧ Saturation (A3)       └╧ Hydrogen Sulfide Odor (C1)       └╧ Drainage Patterns (B10)							inage Patterns (B10)	
Water Marks (B1)       U Dry-Season Water Table (C2)       Oxidized Rhizospheres on Living Roots (C3)								dized Rhizospheres on Living Roots (C3)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) (where tilled)								
Drift De	posits (B3)		(where	not tilled	)		🔲 Cra	yfish Burrows (C8)
	at or Crust (B4)		Presence	of Reduc	ed Iron (C	(4)	Sati	uration Visible on Aerial Imagery (C9)
	(B5)			Surface	(C7)	.,		$p_{\text{marchic}}$ Position (D2)
	on Minihle on Apric	l Imagany (I						C Neutral Test (DE)
	on visible on Aeria	i imagery (i		plain in R	emarks)			
Water-S	tained Leaves (B9)							st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:		V					
Surface Wat	er Present?	Yes	No <u>^</u> Depth (in	ches):				
Water Table	Present?	Yes	No x Depth (in	ches): _				
Saturation Present? Yes X No Depth (inches): Wetland Hydrology Present? Yes X No								v Present? Yes <sup>X</sup> No
(includes capillary fringe)								
Describe Re	corded Data (strea	m gauge, n	nonitoring well, aerial	photos, p	revious in	spections	), if available:	
Remarks:								
		·	alatad less					
⊢ormer o	channel scar	torms is	solated depres	sion.				

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: Ladonia/Fannin Sa		Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 406
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): Southwest Prairies Lat: 33.	.46259 Lon	g: <u>-95.91885</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	ation: PFO1A
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 pr	oblematic? (If needed,	explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	y sampling point locati	ons, transects,	important features, etc.

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

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	40	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	20	Yes	FAC	(excluding FAC-): $\underline{2}$ (A)
3. Maclura pomifera	5	No	FACU	Total Number of Dominant
4. Ulmus crassifolia	5	No	FAC	Species Across All Strata: <u>3</u> (B)
	70	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: <u>67%</u> (A/B)
1. Maclura pomifera	5	No	FACU	
2				Prevalence Index worksheet:
3.				Total % Cover of:Multiply by:
A.		·		OBL species $0$ $x = 0$
				FACW species $5$ x 2 = $10$
5	5			FAC species $70$ x 3 = $210$
Herb Stratum (Plot size: 450 sq ft )	<u> </u>	= Total Cov	ver	FACU species $14$ x 4 = $56$
1 Viola missouriensis	5	No	FACW	UPL species $90$ x 5 = $450$
<ul> <li>Carex planostachys</li> </ul>	90	Yes	UPL	Column Totals: $179$ (A) $726$ (B)
2. Elvmus virainicus	5	No	FAC	
3. <u></u>				Prevalence Index = $B/A = \frac{4.06}{1000}$
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				$\overline{\Box}$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
450 #	100	= Total Cov	ver	1
Woody Vine Stratum (Plot size: 450 sq ft )				Indicators of hydric soil and wetland hydrology must
1. Parthenocissus quinquetolia	2	No	FACU	
2. Smilax bona-nox	2	No	FACU	Hydrophytic
00/	4	= Total Cov	ver	Vegetation
% Bare Ground in Herb Stratum 0%				Present? fes <u>No</u>
Remarks:				

SUL
-----

Depth	Matrix		Redo	x Features	S	. 0		
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 3/1	100					Clay	
							·	
1								
'Type: C=C	oncentration, D=De	pletion, RM=R	educed Matrix, CS	=Covered	d or Coate	ed Sand G	rains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all LI	RRs, unless other	wise note	ed.)		Indicators f	for Problematic Hydric Soils":
Histoso	l (A1)		Sandy G	Bleyed Ma	atrix (S4)		1 cm M	uck (A9) ( <b>LRR I, J</b> )
Histic E	pipedon (A2)		Sandy F	Redox (S5	)		Coast F	Prairie Redox (A16) (LRR F, G, H)
Black H	istic (A3)		Stripped	l Matrix (S	6)		Dark Su	urface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy I	Aucky Mir	neral (F1)		L High Pl	ains Depressions (F16)
Stratifie	d Layers (A5) (LRR	F)	Loamy (	Gleyed Ma	atrix (F2)		(LRF	R H outside of MLRA 72 & 73)
1 cm M	uck (A9) ( <b>LRR F, G</b>	, <b>H</b> )	Deplete	d Matrix (F	F3)		Reduce	ed Vertic (F18)
Deplete	d Below Dark Surfa	ce (A11)		Dark Surfa	ice (F6)		Red Pa	rrent Material (TF2)
H Thick D	ark Surface (A12)		Deplete	d Dark Su	rface (F7)		Very Sh	nallow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)			Depression	ns (F8)		Other (I	Explain in Remarks)
2.5 cm	Mucky Peat or Peat	(S2) ( <b>LRR G</b> ,	H) L High Pla	ins Depre	essions (F	16)	Indicators o	of hydrophytic vegetation and
5 cm M	ucky Peat or Peat (	53) ( <b>LRR F</b> )	(ML	RA 72 & 7	73 of LRR	<b>H</b> )	wetland	hydrology must be present,
							unless	disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	iches):						Hydric Soil I	Present? Yes <u>No <sup>X</sup></u>
Remarks:								
No redo	x features:	solated f	ormer chan	nel sc	ar for	ms clo	sed depre	ession: naturally dark soil
HYDROLO	ΟGΥ							
Wetland Hy								
wetland Hy	drology indicators							
Primary Indi	cators (minimum of	one required;	check all that apply	/)			Secondar	ry Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)				ace Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Inv	vertebrate	s (B13)		Spar:	sely Vegetated Concave Surface (B8)
Saturati	ion (A3)		Hydrogen	Sulfide Od	dor (C1)		Drair	nage Patterns (B10)
Water N	/larks (B1)		Dry-Seaso	n Water T	able (C2)		🗌 Oxidi	ized Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)			hizosphe	res on Liv	ing Roots	(C3) (wi	here tilled)
Drift De	posits (B3)		(where r	ot tilled)		5		fish Burrows (C8)
	at or Crust (B4)			of Reduce	d Iron (C4	1)		ration Visible on Aerial Imagery (C9)
	nosite (B5)			Surface (	(0- (0-7)	•)		morphic Position (D2)
	ion Visible on Asria	Imagen (DZ)						Noutrol Test (DE)
		inagery (D7)			illarks)			
	Stained Leaves (D9)							t-neave nummocks (D7) (LRR P)
Field Obser	vations:		<b>V</b>					
Surface Wat	ter Present?	Yes No	Depth (ind	ches):		_		
Water Table	Present?	Yes No	Depth (ind	ches):		_		
Saturation F	Present?	Yes No	Depth (ind	ches):		Wet	and Hydrology	Present? Yes <u>No <sup>X</sup></u>
(includes ca	pillary fringe)							
Describe Re	ecorded Data (strea	m gauge, moni	toring well, aerial p	photos, pr	evious ins	pections),	it available:	
Remarks:								
No hydro	ologic indicate	ors observ	ved					

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: Ladonia/Fannin Sampling Date: 6/2/2017
Applicant/Owner: Upper Trinity Regional Water District	State: TX Sampling Point: WP417
Investigator(s): <u>Jason Voight, Andrew Sample</u>	_ 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: <u>33</u>	3.45331 Long: <u>-95.97668</u> Datum: <u>NAD83</u>
Soil Map Unit Name: Tinn Clay, Occasionally flooded	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of y	/ear? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, Soil X, or Hydrology naturally placed	roblematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes X       No         Hydric Soil Present?       Yes No       X         Wetland Hydrology Present?       Yes No       X         Remarks:       Kemarks:       Kemarks:       Kemarks:	- Is the Sampled Area - within a Wetland? Yes NoX

Heavy storms the previous day; outside of forested wetland delineated at wp307

	Abeelute	Densinent	Indiantan	Deminence Test worksheet	
Tree Stratum (Plot size: 700 sq ft )	Absolute % Cover	Dominant Species?	Status	Dominance Test worksneet:	
<u>recontation</u> (Fist size:) Fraxinus pennsylvanica	10	No	FAC	Number of Dominant Species	
2. Ulmus americana	5	No	FAC	(excluding FAC-): 2	(A)
3.				Total Number of Dominant	
4.				Species Across All Strata: 2 (	(B)
	15	= Total Co	ver	Dereent of Dominant Species	
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: 100 (	(A/B)
1. Ulmus americana	5	No	FAC		. ,
2. Juniperus virginiana	5	No	FAC	Prevalence Index worksheet:	
3.				Total % Cover of: Multiply by:	
4.				OBL species x 1 =	
5.				FACW species x 2 =	
	10	= Total Co	ver	FAC species x 3 =	
Herb Stratum (Plot size: 450 sq ft )		- 10101 00		FACU species x 4 =	
1. Toxicodendron radicans	5	No	FACU	UPL species x 5 =	
2. Bignonia capreolata	5	No	FAC	Column Totals: (A)	(B)
3. Ambrosia trifida	30	Yes	FAC		
4. Amaranthus tuberculatus	10	No	FAC	Prevalence Index = B/A =	
5. Torilis arvensis	10	No	FAC	Hydrophytic Vegetation Indicators:	
6. Elymus virginicus	20	Yes	FAC	1 - Rapid Test for Hydrophytic Vegetation	
7 Erigeron annuus	10	No	FACU	2 - Dominance Test is >50%	
8				$3$ - Prevalence Index is $\leq 3.0^1$	
9				4 - Morphological Adaptations <sup>1</sup> (Provide suppo	orting
10					
	90	- Total Cov	Ar	Problematic Hydrophytic Vegetation (Explain)	)
Woody Vine Stratum (Plot size: 450 sq ft )		- 10tal 00		<sup>1</sup> Indicators of hydric soil and wetland hydrology mu	JSt
1				be present, unless disturbed or problematic.	
2.				Hydrophytic	
	0	= Total Cov	ver	Vegetation	
% Bare Ground in Herb Stratum 10				Present? Yes <u>×</u> No	
Remarks:				·	

Profile Desc	cription: (Describe	to the depth nee	ded to docur	nent the i	indicator	or confirm	m the absence of indicators.)
(inches)	Color (moist)	% Co	lor (moist)	<u>x reature</u> %	s Type <sup>1</sup>	$loc^2$	Texture Remarks
0-18	10 YR 3/1						Clay
<sup>1</sup> Type: C=C	oncentration, D=Dep	pletion, RM=Redu	ced Matrix, CS	S=Covered	d or Coate	d Sand G	Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.
Histosol Histic Ep Black Hi Hydroge Stratified Depleted Thick Da Sandy M 2.5 cm M	(A1) pipedon (A2) istic (A3) en Sulfide (A4) d Layers (A5) (LRR uck (A9) (LRR F, G, d Below Dark Surfac ark Surface (A12) Mucky Mineral (S1) Mucky Peat or Peat (S ucky Peat or Peat (S	F) H) æ (A11) (S2) (LRR G, H) 3) (LRR F)	Sandy ( Sandy I Stripped Loamy Deplete Redox I High Pla ( <b>ML</b>	Gleyed Ma Redox (S5 d Matrix (S Mucky Mir Gleyed Ma d Matrix (I Dark Surfa d Dark Surfa d Dark Surfa d Dark Surfa d Dark Surfa Bepressio ains Depre	atrix (S4) atrix (S4) atrix (S4) atrix (F1) atrix (F2) F3) acce (F6) urface (F7) ns (F8) essions (F <b>73 of LRR</b>	16) H)	<ul> <li>1 cm Muck (A9) (LRR I, J)</li> <li>Coast Prairie Redox (A16) (LRR F, G, H)</li> <li>Dark Surface (S7) (LRR G)</li> <li>High Plains Depressions (F16) (LRR H outside of MLRA 72 &amp; 73)</li> <li>Reduced Vertic (F18)</li> <li>Red Parent Material (TF2)</li> <li>Very Shallow Dark Surface (TF12)</li> <li>Other (Explain in Remarks)</li> <li><sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.</li> </ul>
Restrictive I	Layer (if present):						
l ype:							Hydria Sail Bragant? Yag
Deptil (III	cnes).						
No re	dox feat	tures					
HYDROLO	GY						





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: WP418
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): Southwest Prairies Lat: 33	3.45314	Long: <u>-95.97526</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	rear? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil X, or Hydrology naturally pr	roblematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling	point locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes <u>X</u> No Yes <sup>X</sup> No	Is the Sampled Area
Wetland Hydrology Present?	Yes X No	within a Wetland? Yes <u>^</u> 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. Fraxinus pennsylvanica	65	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus americana	20	Yes	FAC	$(\text{excluding FAC-}): \underline{2} (A)$
3. Celtis laevigata	10	No	FAC	Total Number of Dominant
4				Species Across All Strata: 2 (B)
	95	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC:(A/B)
1. Ulmus americana	5	No	FAC	
2. Celtis laevigata	5	No	FAC	Prevalence Index worksheet:
3. Fraxinus pennsylvanica				Total % Cover of: Multiply by:
4.				OBL species x 1 =
5				FACW species x 2 =
	10	- Total Ca		FAC species x 3 =
Herb Stratum (Plot size: <sup>450</sup> sq ft )		= 10(a) COV		FACU species x 4 =
1. Elymus virginicus	1	No	FAC	UPL species x 5 =
2 Bignonia capreolata	2	No	FAC	Column Totals: (A) (B)
Ambrosia trifida	5	No	FAC	
⊿ Torilis arvensis	2	No	FAC	Prevalence Index = B/A =
4. <u> </u>				Hydrophytic Vegetation Indicators:
5			<u> </u>	1 - Rapid Test for Hydrophytic Vegetation
6				✓ 2 - Dominance Test is >50%
7		·	<u> </u>	$3$ - Prevalence Index is $\leq 3.0^1$
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9		. <u> </u>	<u> </u>	data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
450 og t	10	= Total Cov	ver	
Woody Vine Stratum (Plot size: 450 sq it )				Indicators of hydric soil and wetland hydrology must
1		. <u> </u>		
2				Hydrophytic
	0	= Total Cov	ver	Vegetation Present? Ves X No
% Bare Ground in Herb Stratum 90				
Kemarks:				

Depth       Matrix       Redox Features         Inchest       Color (molist)       S       Type:	Profile Desc	cription: (Describe	to the depth	needed to docun	nent the i	ndicator o	or confirm	the absence	of indicators.)
(Index)       Color (moist)       %       Clay       Remarks         0-18       10 YR 3/1       95       10 YR 4/6       5       C       M       Clay         0       10 YR 3/1       95       10 YR 4/6       5       C       M       Clay         0       10 YR 3/1       95       10 YR 4/6       5       C       M       Clay         0       10       YR 3/1       95       10 YR 4/6       5       C       M       Clay         0       10       10       YR 3/1       95       10 YR 4/6       Sol       M       Clay         0       10	Depth	Matrix		Redo	x Features	6			
0-18       10 YR 3/1       95       10 YR 4/6       5       C       M       Clay         Image: Comparison of the state	(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
Image: Soli Indicators: (Applicable to al LRRs, unless otherwise notes)       Indicators: (Applicable to al LRRs, unless otherwise notes)       Indicators: (Applicable to al LRRs, unless otherwise notes)         Image: Indicators: (Applicable to al LRRs, unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)         Image: Indicators: (Applicable to al LRRs, Unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)         Image: Indicators: (Applicable to al LRRs, Unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)       Indicators: (Applicable to al LRRs, Unless otherwise notes)         Image: Indicators: (Applicable to al LRRs, Unless otherwise notes)       Image: Indicators: (Applicable to al LRRs, Unless otherwise notes)       Image: Indicators: (F16)         Image: Indicators: (Applicable to al LRRs, Unless otherwise notes)       Image: Indicators: (F16)       Image: Indicators: (F17)         Image: Indicators: Image: Indicators: Image: Imag	0-18	10 YR 3/1	95 1	0 YR 4/6	5	С	М	Clay	
Image: Secondary Indicators:       Parent Matrix (S4)         Image: Secondary Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Image: Ima									
Image: Concentration. D=Depletion, RM=Reduced Matrix: CS=Covered or Coated Sand Grans.       *Location: PL=Pore Lining, M=Matrix.         Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solls':         Histosol (A1)       Sandy Gleyed Matrix (S4)       Indicators for Problematic Hydric Solls':         Histosol (A2)       Sandy Redox (S5)       Indicators for Problematic Hydric Solls':         Histosol (A1)       Sandy Redox (S5)       Indicators for Problematic Hydric Solls':         Histosol (A2)       Sandy Redox (S5)       Indicators for Problematic Hydric Solls':         Back Histic (A3)       Indicators (Applicable to all LRRs, Unless otherwise Note(P)       Indicators for Problematic Hydric Solls':         Back Histic (A3)       Indicators (A1)       Indicators (C1)       Indicators (C1)         Back Histic (A3)       Indicators (C1)       Redox Dark Surface (F7)       Redox Dark Surface (F7)         Back Hydro Peat or Peat (S2) (LRR 6, H)       High Plains Depressions (F16)       Indicators of hydrophytic vegetation and welland hydroidogy must be present, unless disturbed or problematic.         Restrictive Layer (If present):       Type:       Indicators (Ininium of two required)         Type:       Depleted Mark (S1)       Scoondary Indicators (Ininium of two required)         Water Taiter (Information Materia (Information Materia (Information Materia (Information Materia (Information Mate									
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':       Indicators for Problematic Hydric Soils':         Hydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Soils':       Indicators for Problematic Hydric Soils':         Hydric Soil Matrix (S3)       Sandy Gleyed Matrix (S3)       Indicators for Problematic Hydric Soils':       Indicators for Problematic Hydric Soils':         Hydrices Soil Mide (Ad)       Indicators for McAby (LRR F, G, H)       Indicators (F1)       Indicators (F1)       Indicators (F1)         Depleted Bolow Dark Surface (A12)       Peducad Voriat Matrix (G1)       Redvox Dark Surface (F7)       Indicators (F1)       Redvox Dark Surface (F1)         Sord Mucky Meeral (S1)       Medox Dark Surface (F7)       Indicators (F1)       Indicators (F1)       Indicators (F1)         Sord Mucky Peat or Peat (S2) (LRR G, H)       Hydrice Soil Present?       Yees X       No         Muchy Materia (S1)       (MLRA 72 & 73 of LRR H)       Indicators (F1)       Indicators (F1)         Type:	·		·		·				
Image: Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.       Indicators in PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains.       Indicators in PL=Pore Lining, M=Matrix, CS=Covered or Coated Sand Grains.         Histosol (A1)       Sandy Glayed Matrix (S4)       Indicators for Problematic Hydric Soils':       Indicators for Problematic Hydric Soils, CS=Covered or Coated Sand Grains.       Indicators for Problematic Hydric Soils':         Histosol (A1)       Sandy Glayed Matrix (S4)       Dark Surface (S7) (LRR F, G, H)       Depleted Matrix (S1)       Coast Prainfer Redox (A16) (LRR F, G, H)         Back Histic (A3)       Depleted Matrix (S1)       Depleted Matrix (S1)       Red Verse or Musck Winteral (F1)       LRR H outside of MLRA 72 & 73)         Peduced Varis Variace (S1)       Depleted Dark Surface (F2)       Depleted Dark Surface (F2)       Red Verse or Musck Peat or Peat (S2) (LRR 6, H)       Depleted Dark Surface (F2)         S orn Mucky Peat or Peat (S2) (LRR 6, H)       High Plains Depressions (F16)       "Indicators of hydrophytic vegetation and wetland hydrology must be present;         Type:	<u> </u>								
**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?:         Histo       Explored Matrix (S4)       Coast Praine Redox (A16) (LRR F, G, H)       Dark Surface (S7) (LRR G)         Hydriges Sulfide (A4)       Sandy Greyed Matrix (F2)       Coast Praine Redox (A16) (LRR F, G, H)       Depleted Matrix (F2)         I cm Muck (A9) (LRR F, G, H)       Depleted Matrix (F2)       Reduced Venic (F1)       Reduced Venic (F1)         I cm Muck (A9) (LRR F, G, H)       Depleted Matrix (F2)       Reduced Venic (F12)       Users Surface (A12)         I cm Muck Variace (A11)       Redox Depressions (F6)       Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:       Hydrice 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':         Histic Epipedon (A2)       Sandy Gleyed Matrix (S4)       I or Muck (A9) (LRR F, G, H)         Black Histic (A3)       Dark Surface (S7) (LRR F, G, H)       Depleted Matrix (F3)         Depleted Bow Dark Surface (A11)       Depleted Dark Surface (F6)       Redox Depressions (F6)         Depleted Dark Surface (F7)       Redox Depressions (F6)       Redox Depressions (F6)         2.5 cm Mucky Peet or Peat (S2) (LRR F, I)       Depleted Dark Surface (F7)       Redox Depressions (F6)         S andy Mucky Mineral (S1)       Mineral (S1)       Redox Depressions (F6)         S or Mucky Peat or Peat (S2) (LRR F, I)       High Plains Depressions (F6)       "indicators of hydrophytic vegetation and wetland hydroidgy must be pressent, unless disturbed or problematic.         Restrictive Layer (if present):       Type:       High Plains Depressions (F6)       "indicators of hydrophytic vegetation and wetland hydroidgy must be pressent, unless disturbed or problematic.         Returns Present; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soil         HybroLOGY         Wetland Hydrology Indicators:       Salt crack all hat apply)       Salt crack all (G2)       Sa									
<sup>1</sup> Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>1</sup> Location:       PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       (A)1       Sandy Redox (S5)       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosoil (A)1       Sandy Redox (S5)       Castro Problematic Hydric Soils <sup>2</sup> :       Indicators for Problematic Hydric Soils <sup>2</sup> :         Histosoil (A)1       Sandy Redox (S5)       Castro Problematic Hydric Soils <sup>2</sup> :       Indicators for Problematic Hydric Soils <sup>2</sup> :         Hydrogen Sufide (A)       Sitripped Matrix (S6)       Castro Prairie Redox (A16) (LRR F, G, H)       Castro Matrix (S7)         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)       Redox Dark Surface (F7)       Redox Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Dark Surface (F7)       Redox Dark Surface (F7)       Sinde Surface (F7)         Sandy Mucky Mineral (S1)       Redox Dark Surface (F7)       Redox Dark Surface (F7)       Sinde Sufface (F7)         Sandy Mucky Mineral (S1)       Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F6)       "Indicators of hydrophytic vegetation and wetand hydrology must be present, unless disturbed or problematic.         Restrictive Layer (If present):       Type:       Pepted Dark Surface (F1)       Sinface (F1)         Beditor Simper Matrix       Saturation (A3)       Hydric Soil Present?       No									
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 Epideon (A2)       Sandy Gleyed Matrix (S4)       Coast Praine Redox (A16) (LRR F, G, H)         Black Histic (A3)       Singped Matrix (S6)       Dark Surface (S7) (LRR G)         Hydrogen Sulfade (A4)       Loamy Gleyed Matrix (S7)       Redox (A56) (LRR F, G, H)         Depleted Bolow Dark Surface (A11)       Redox RS Surface (F6)       Red Parent Material (TF2)         Sandy Mucky Mineral (S1)       Redox Depressions (F16)       Wort (S2) (LRR G, H)         So m Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)       Wort (S3) Mucky Mineral (S1)         Second favor, Matrix (F2)       Coast Parialre Redox (A50) (LRR F, G, H)       High Plains Depressions (F16)         So m Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)       Wort (S3) Mucky Mineral (S1)         Second favor, Matrix (Mineral (S1)       High Plains Depressions (F16)       Wort (S4) Mucky Mineral (S1)         Restrictive Layer (If present):       Type:       Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)         Sutraction National Mucky Peat or Peat (S2) (LRR G, H)       Mucky Peat or Peat (S2) (LCR G, H)       Muck			·		·				
"Type:       C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.       "Cacation: PL=Pore Lining, M=Matrix.         Hydric Soil Indicators:       (Applicable to all LRRs, unless otherwise noted)       Indicators for Problematic Hydric Soils:         Histosol (A1)       Sandy Gleyed Matrix (S4)       Image of the therwise noted)       Image of the therwise noted)         Black Histic (A3)       Sandy Redox (S5)       Image of the therwise noted)       Image of the therwise noted)         Stratified Layers (A5) (LRR F, G, H)       Depleted Matrix (S6)       Image of the therwise noted)       Image of the therwise noted)         Image of the therwise noted of the therwise not			·		·				
Hydric Soli Indicators: (Applicable to all LRRs, unless otherwise noted.)       Indicators for Problematic Hydric Solis':         Histosol (A1)       Sandy Redox (S5)         Hydrogen Sulfide (A4)       Stripped Matrix (S6)         Depleted Below Dark Surface (A1)       Depleted Matrix (F3)         Depleted Below Dark Surface (A1)       Perleted Matrix (F3)         Depleted Below Dark Surface (A1)       Perleted Matrix (F3)         Sandy Medox (Mineral (F1)       Depleted Matrix (F3)         Sandy Medox (Park Surface (F6)       Depleted Matrix (F3)         Back Histic (A3)       Depleted Matrix (F3)         Sandy Medox (Mineral (F1)       Redox Dark Surface (F6)         Depleted Below Dark Surface (A12)       Redox Dark Surface (F6)         Sandy Medox (Mineral (S1)       Redox Dark Surface (F6)         So rm Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)         *Indicators of Problematic.       *Indicators of hydrophytic vegetation and wether hydrology must be present, unless disturbed or problematic.         Restrictive Layer (If present):       Trype:       No         Type:       Depleted Bark Surface (C12)       No         Surface Water (A1)	<sup>1</sup> Type: C=C	oncentration, D=Dep	letion, RM=R	educed Matrix, CS	S=Covered	l or Coate	d Sand Gra	ains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Histose (A1)       Sandy Gleyed Matrix (S4)       I cm Muck (A9) (LRR I, J)         Histose (Ppedon (A2)       Sandy Redox (S5)       Coast Prairie Redox (A16) (LRR F, G, H)         Black Histic (A3)       Stripped Matrix (S6)       Dark Surface (S7) (LRR G)         Torm Muck (A9) (LRR F, G, H)       Depleted Matrix (F2)       Coast Prairie Redox (A16) (LRR F, G, H)         Depleted Below Dark Surface (A11)       Depleted Matrix (F3)       Reduced Vertic (F18)         Reduced Vertic (F18)       Redox Dark Surface (F7)       Very Shallow Dark Surface (TF12)         Sandy Mucky Mineral (S1)       Z form Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F6)         Sorm Mucky Peat or Peat (S2) (LRR F)       High Plains Depressions (F6)       "Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):       Type:	Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless other	wise note	ed.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histic Epipedon (A2)       Sandy Redox (S5)       Coast Prairie Redox (A16) (LRR F, G, H)         Biack Histic (A3)       Sandy Redox (S5)       Coast Prairie Redox (A16) (LRR G)         Hydrogen Sufide (A4)       Sandy Redox (S6)       Coast Prairie Redox (A16) (LRR G)         Depleted layers (A5) (LRR F, G, H)       Coarry Gleyed Matrix (F2)       LRR H outside of MLRA 72 & 73         Depleted Below Dark Surface (A11)       Redox Dark Surface (F7)       Redox Dark Surface (F7)         Sandy Mucky Mineral (S1)       Redox Depressions (F16)       Redox Cark Surface (F7)         So m 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:	Histosol	(A1)		Sandy G	Bleyed Ma	trix (S4)		1 cm M	luck (A9) ( <b>LRR I, J</b> )
Black Histic (A3)	Histic E	pipedon (A2)		Sandy F	Redox (S5)	)		Coast F	Prairie Redox (A16) (LRR F, G, H)
Hydrogen Sullide (A4)       Learny Mucky Mineral (F1)       High Plans Depressions (F16)         I cm Muck (A9) (LRR F, G, H)       Depleted Matrix (F3)       Reduced Vertic (F16)         Depleted Blow Dark Surface (A12)       Depleted Matrix (F3)       Redvo Dark Surface (F6)         2.5 cm Mucky Peat or Peat (S2) (LRR G, H)       Depleted Matrix (F3)       Other (Explain in Remarks)         5 cm Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)       Thick Dark Surface (F7)         Betrictive Layer (if present):       Type:       Depleted Dark Surface (F6)       Depleted Dark Surface (F6)         Depleted Parks       Mucky Peat or Peat (S2) (LRR G, H)       High Plains Depressions (F16)       Thickloacor of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.         Restrictive Layer (if present):         Type:	Black Hi	istic (A3)			I Matrix (S	6)		Dark S	urface (S7) (LRR G)
Statistice Layers (A) (LRR F)       Clarm (F2)       CLRR H outside of MLR 72 & 73)         I cm Muck (A) (LRR F) G, H)       Clarm (F2)       Redox Dark Surface (F6)       Red Parent Material (TF2)         Stand Mucky Mineral (S1)       Redox Dark Surface (F7)       Redox Dark Surface (F7)       Other (Explain in Remarks)         3 5 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:	Hydroge	en Sulfide (A4)			Mucky Min	eral (F1)		High Pl	ains Depressions (F16)
Image: Strates (R1)       Depleted matrix (F3)       Redox Dark Surface (F1)         Depleted Bow Dark Surface (A12)       Depleted Dark Surface (F7)       Redox Dark Surface (F7)         Sandy Mucky Mineral (S1)       Z.5 cm Mucky Peat or Peat (S2) (LRR G, H)       Might Pains Depressions (F8)       Other (Explain in Remarks)         3 Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.       Micro Depleted Dark Surface (F7)       Wetland hydrology must be present, unless disturbed or problematic.         Redox Dark Surface (F7)         Bestrictive Layer (if present):       (MLRA 72 & 73 of LRR H)       Wetland hydrology must be present, unless disturbed or problematic.         Type:         Depleted Dark Surface (F6)       Hydric Soil Present?       YesX No		u Layers (A5) (LRR I	-) Lu\		oleyed IVIa	(TIX (FZ)			R H OUTSIDE OF MLRA /2 & /3)
□       Thick Dark Surface (A12)       □       Depleted Dark Surface (F7)       □       Very Shallow Dark Surface (TF12)         □       Sandy Mucky Mineral (S1)       □       Depleted Dark Surface (F7)       □       Other (Explain in Remarks)         □       S.c. m Mucky Peat or Peat (S2) (LRR G, H)       □       Depleted Dark Surface (F7)       □       Other (Explain in Remarks)         □       S.c. m Mucky Peat or Peat (S2) (LRR G, H)       □       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:		d Below Dark Surfac	e (A11)		ark Surfa	5) ce (F6)			arent Material (TF2)
Sandy Mucky Mineral (S1)       Redox Depressions (F8)       Other (Explain in Remarks)         Som Mucky Peat or Peat (S2) (LRR G, H)       (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:		ark Surface (A12)	0 (/ (1 ) /		d Dark Su	rface (F7)		Verv Sl	hallow Dark Surface (TF12)
□       2.5 cm Mucky Peat or Peat (S2) (LRR G, H)       □       High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)       □	Sandy N	/ucky Mineral (S1)		Redox [	Depression	ns (F8)		Other (	Explain 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):	2.5 cm l	Mucky Peat or Peat (	S2) (LRR G, I	H) 🛛 🔲 High Pla	ains Depre	ssions (F	6)	<sup>3</sup> Indicators	of hydrophytic vegetation and
unless disturbed or problematic.         Restrictive Layer (if present):         Type:	🔲 5 cm Mu	ucky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	RA 72 & 7	3 of LRR	H)	wetland	hydrology must be present,
Restrictive Layer (if present):       Type:								unless	disturbed or problematic.
Type:	Restrictive	Layer (if present):							
Depth (inches):       Hydric Soil Present? Yes       X o         Remarks:         Redox features present; 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)       Salt Crust (B11)         High Water Table (A2)       Aquatic Invertebrates (B13)         Hydro Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)         Orift Deposits (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:       X       Depth (inches):         Surface Water Present?       Yes       No         Yes       No       Depth (inches):	Туре:								
Remarks:         Redox features present; 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)         High Water Table (A2)       Aquatic Invertebrates (B13)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)         Uhere not tilled)       Oxidized Rhizospheres on Living Roots (C3)         Image Patterns (B1)       Presence of Reduced Iron (C4)         Inon Deposits (B3)       Water Narks (B1)         Image Presence (B9)       Other (Explain in Remarks)         Field Observations:       Other (Explain in Remarks)         Surface Water Present?       Yes         Water Table Present?       Yes         No       Depth (inches):         Water Table Present?       Yes	Depth (in	ches):						Hydric Soil	Present? Yes X No
Redox features present; 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)       Salt Crust (B11)         High Water Table (A2)       Aquatic Invertebrates (B13)         Saturation (A3)       Hydrogen Sulfide Odor (C1)         Water Marks (B1)       Dry-Season Water Table (C2)         Sediment Deposits (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?         Surface Water Present?       Yes         No       Depth (inches):         Water Table Present?       Yes	Remarks:							1	
Redox features present; 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)									
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)         Saturation (A3)       Dry-Season Water Table (C2)       Oxidized Rhizospheres on Living Roots (C3)         Sediment Deposits (B2)       Oxidized Rhizospheres on Living Roots (C3)       (where not 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)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       Frost-Heave Hummocks (D7) (LRR F)         Field Observations:       Surface Water Present?       Yes       No       Depth (inches):       Ture         Water Table Present?       Yes       No       Depth (inches):       Ture       Ture       Ture	Redox fe	atures presen	t; Tinn cla	y, occasiona	ally floo	ded is	nationa	ally listed h	ydric 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)       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)         Vetland Hydrogens (B2)       Oxidized Rhizospheres on Living Roots (C3)       (where not 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)       Yes       No       Z         Field Observations:       Yes       No       X         Surface Water Present?       Yes       No       X         Water Table Present?       Yes       No       X         Depth (inches):									
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)       Dry-Season Water Table (C2)         Vater Marks (B1)       Dry-Season Water Table (C2)       Oxidized Rhizospheres on Living Roots (C3)         Drift Deposits (B3)       (where not tilled)       Crayfish Burrows (C8)         Algal Mat or Crust (B4)       Presence of Reduced Iron (C4)       Saturation Visible on Aerial Imagery (B7)         Inon Deposits (B5)       Other (Explain in Remarks)       FAC-Neutral Test (D5)         Field Observations:       Yes       No X       Depth (inches):         Water Table Present?       Yes       No X       Depth (inches):	HYDROLO	GY							
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)       Direction         Water Marks (B1)       Dry-Season Water Table (C2)       Direction         Oxidized Rhizospheres on Living Roots (C3)       (where not tilled)       Direction         Presence of Reduced Iron (C4)       Thin Muck Surface (C7)       Geomorphic Position (D2)         Inon Deposits (B5)       Thin Muck Surface (C7)       FAC-Neutral Test (D5)         Water-Stained Leaves (B9)       Ves	Wetland Hy	drology Indicators:							
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)   Drift Deposits (B3)   Algal Mat or Crust (B4)   Iron Deposits (B5)   Inundation Visible on Aerial Imagery (B7)   Water Stained Leaves (B9)   Field Observations:   Surface Water Present?   Yes   Water Table Present?   Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Yes	Primary Indi	cators (minimum of o	ne required; c	check all that apply	y)			<u>Seconda</u>	ry Indicators (minimum of two required)
High Water Table (A2)       Aquatic Invertebrates (B13)       ✓ Sparsely Vegetated Concave Surface (B8)         Saturation (A3)       Hydrogen Sulfide Odor (C1)       Drainage Patterns (B10)         Water Marks (B1)       Oxidized Rhizospheres on Living Roots (C2)       Oxidized Rhizospheres on Living Roots (C3)         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)         Inundation Visible on Aerial Imagery (B7)       Other (Explain in Remarks)       FAC-Neutral Test (D5)         Field Observations:       Yes       No       Depth (inches):         Water Table Present?       Yes       No       Depth (inches):	Surface	Water (A1)		Salt Crust	(B11)				ace 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)   Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3)   Drift Deposits (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)   Water-Stained Leaves (B9) Yes     No X   Depth (inches):   Water Table Present? Yes   No X   Depth (inches):	High Wa	ater Table (A2)		Aquatic Inv	vertebrates	s (B13)		Spar	sely Vegetated Concave Surface (B8)
Water Marks (B1) Dry-Season Water Table (C2) Oxidized Rhizospheres on Living Roots (C3)   Sediment 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)   Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)   Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5)   Water Stained Leaves (B9) Yes No _X Depth (inches): Frost-Heave Hummocks (D7) (LRR F)	Saturati	on (A3)		Hydrogen	Sulfide Od	lor (C1)			nage Patterns (B10)
Sediment 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)   Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)   Inundation Visible on Aerial Imagery (B7) Other (Explain in Remarks) FAC-Neutral Test (D5)   Water-Stained Leaves (B9) This Muck Surface (C7) Frost-Heave Hummocks (D7) (LRR F)	Water N	1arks (B1)		Dry-Seaso	n Water T	able (C2)		U Oxid	ized Rhizospheres on Living Roots (C3)
Drift Deposits (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)   Water-Stained Leaves (B9) Thin Mode Surface (C7)   Field Observations: Yes No _X   Surface Water Present? Yes No _X   Water Table Present? Yes No _X   Depth (inches):	Sedimer	nt Deposits (B2)		Cxidized R	hizospher	es on Livi	ng Roots (	C3) (w	here tilled)
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)         Water-Stained Leaves (B9)       Other (Explain in Remarks)       FAC-Neutral Test (D5)         Field Observations:       Ves       No       Depth (inches):         Water Table Present?       Yes       No       X         Depth (inches):       Depth (inches):       Thin Muck Surface)		posits (B3)		(where r	not tilled)			Cray	fish Burrows (C8)
□       Iron Deposits (B5)       □       Thin Muck Surface (C7)       □       Geomorphic Position (D2)         □       Inundation Visible on Aerial Imagery (B7)       □       Other (Explain in Remarks)       □       FAC-Neutral Test (D5)         □       Water-Stained Leaves (B9)       □       Thin Muck Surface (C7)       □       FAC-Neutral Test (D5)         Field Observations:	Algal Ma	at or Crust (B4)		Presence of	of Reduce	d Iron (C4	)	Satu	ration 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:	Iron Dep	posits (B5)		Thin Muck	Surface (	C7)			morphic 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):         The present (inches):	Inundati	on Visible on Aerial I	magery (B7)	U Other (Exp	lain in Re	marks)			-Neutral Test (D5)
Field Observations:         Ves         No         X         Depth (inches):         Ves         Ves         No         X         Depth (inches):         Ves	Water-S	stained Leaves (B9)						L Fros	t-Heave Hummocks (D7) (LRR F)
Surface Water Present?         Yes         No         X         Depth (inches):	Field Obser	vations:							
Water Table Present? Yes <u>No X</u> Depth (inches):	Surface Wat	er Present? Y	es No	X Depth (ind	ches):		_		
	Water Table	Present? Y	es No	X Depth (ind	ches):		_		
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes X No	Saturation P	resent? Y	es No	X Depth (ind	ches):		Wetla	and Hydrology	Present? Yes $X$ No
(includes capillary fringe)	(includes ca	pillary fringe)	dalido monit	toring well pariel	botos pr			favailabla	

Remarks:







Project/Site: Lake Ralph Hall Supplemental JD	_ City/County: L	adonia/Fannin	Sa	mpling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District		State	<u> </u>	mpling Point: WP 474
Investigator(s): Jason Voight, Andrew Sample	Section, Town	ship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (co	oncave, convex, none	e): Concave	Slope (%): 0-1%
Subregion (LRR): Southwest Prairies Lat: 3	3.45216	Long: <u>-95</u> .	94622	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded			NWI classification	n: PFO1A
Are climatic / hydrologic conditions on the site typical for this time of	year? Yes X	No (If no	, explain in Rema	arks.)
Are Vegetation, Soil, or Hydrology significant	ily disturbed?	Are "Normal Circ	umstances" prese	ent? Yes X No
Are Vegetation, Soil x, or Hydrology naturally p	problematic?	(If needed, explai	n any answers in	Remarks.)
SUMMARY OF FINDINGS – Attach site map showir	ng sampling i	point locations,	transects, in	nportant features, etc.

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

## **VEGETATION – Use scientific names of plants.**

T OF CONTRACT TO STATE	Absolute	Dominant	Indicator	Dominance Test worksheet:	
Acer pequado	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species	
		Voc		I hat Are OBL, FACW, or FAC (excluding FAC-): 3	(A)
2. Olinus americana	40	165	FAC		(/ ()
3			·······	Total Number of Dominant	
4				Species Across All Strata:	(B)
0 15 (0) 1 0; (0) (0) (0) (0) (0) (0) (0)	95	= Total Cov	ver	Percent of Dominant Species	
Sapling/Shrub Stratum (Plot size:)	10	Voc	FAC	That Are OBL, FACW, or FAC: 75%	(A/B)
1. Acer negulido		1 es		Prevalence Index worksheet:	
2. Morus rubra	10	res	FACU	Total % Cover of: Multiply by:	
3					-
4					-
5				FAC w species X 2 =	-
450 #	20	= Total Cov	ver	FAC species X 3 =	-
Herb Stratum (Plot size: 450 sq ft )				FACU species x 4 =	-
1. Lolium multiflorum	2	No	UPL	UPL species x 5 =	-
2. Carex crus-corvi	2	No	OBL	Column Totals: (A)	_ (B)
3				Prevalence Index - B/A -	
4				Hydrophytic Vegetation Indicators	-
5				A Denid Test for Undershutic Versetation	
6					
7				2 - Dominance Test is >50%	
8.				3 - Prevalence Index is ≤3.0	
9				4 - Morphological Adaptations' (Provide supp	orting
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain	2)
	4	= Total Cov	ver		1)
Woody Vine Stratum (Plot size:)				<sup>1</sup> Indicators of hydric soil and wetland hydrology m	lust
1				be present, unless disturbed or problematic.	
2				Hydrophytic	
		= Total Cov	ver	Vegetation	
% Bare Ground in Herb Stratum 96				Present?         Yes         No	
Remarks:					

Up between remnant channels of former North Sulphur River; not hydraulically or hydrologically connected to existing main channel.

(inches)	Matrix		Rede	ox Feature	s		in the absence of h	nucators.)
	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 2/1	99					Clay	
12-18			10 YR 4/6	1	С	Μ	Clay	
					·			
					·			
							······	
					. <u> </u>			
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, RM=	Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. <sup>2</sup> Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
Histosol	l (A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm Muck	(A9) ( <b>LRR I, J</b> )
Histic E	pipedon (A2)		Sandy	Redox (St	5)		🔲 Coast Prai	rie Redox (A16) ( <b>LRR F, G, H</b> )
Black Hi	istic (A3)		Strippe	d Matrix (	56)		Dark Surfa	ice (S7) (LRR G)
	en Sulfide (A4)			Mucky Mi	neral (F1)		High Plain:	s Depressions (F16)
		F) H)		Gleyed IVI ad Matrix (	atrix (FZ)			(ertic (E18)
Deplete	d Below Dark Surfac	ce (A11)		Dark Surfa	ace (F6)		Red Paren	t Material (TF2)
Thick D	ark Surface (A12)	( )	Deplete	ed Dark Su	urface (F7)		Very Shall	ow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)		Redox	Depressic	ns (F8)		Other (Exp	lain in Remarks)
2.5 cm l	Mucky Peat or Peat	(S2) ( <b>LRR 0</b>	<b>5, H</b> ) 📙 High Pl	ains Depr	essions (F	16)	<sup>3</sup> Indicators of h	ydrophytic vegetation and
<u>5</u> cm Mu	ucky Peat or Peat (S	53) ( <b>LRR F</b> )	(ML	RA 72 &	73 of LRR	H)	wetland hy	drology must be present,
Restrictive	l aver (if present):							urbed of problematic.
Type <sup>.</sup>	Luyer (ii present).							
Depth (in	ches).						Hydric Soil Pre	sent? Yes No <sup>X</sup>
Remarks:								
Insufficien	nt redox features	s observe	d; Tinn clay, od	ccasiona	ally flood	ded is na	ationally listed	hydric soil; naturally dark soi
Wetlend Liv								
	drology indicators			њ. А			Casaadamul	
Primary indiv	cators (minimum or (	one required	i; check all that app	iy)			Secondary II	ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	t (B11)	(D40)		Surface	Soil Cracks (B6)
Surface	water (A1) ater Table (A2)		Salt Crust	t (B11) ivertebrate	es (B13)		Surface	Soil Cracks (B6) y Vegetated Concave Surface (B8)
Surface	Water (A1) ater Table (A2) on (A3) Marks (B1)		Salt Crust	t (B11) overtebrate Sulfide O	es (B13) dor (C1) Table (C2)		Surface	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10)
Surface High Wa Saturati Water M Sedimen	Water (A1) ater Table (A2) on (A3) /larks (B1) nt Deposits (B2)		Salt Crust	t (B11) overtebrate Sulfide O on Water	es (B13) dor (C1) Table (C2)	ing Roots	Surface Sparsely Drainag Oxidized	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3)
Surface     Surface     High Wa     Saturati     Water M     Sedimel     Drift Del	Water (A1) ater Table (A2) on (A3) /arks (B1) nt Deposits (B2) posits (B3)		Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized	t (B11) overtebrate Sulfide O on Water Rhizosphe <b>not tilled</b> )	es (B13) dor (C1) Table (C2) eres on Liv	ing Roots	Carloright	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled)
Surface     High Water M     Saturati     Water M     Sedimen     Drift Dep     Algal Ma	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)		Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence	t (B11) overtebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4	ing Roots	Call Surface	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) Burrows (C8) on Visible on Aerial Imagery (C9)
Saturati U Surface High Wa Saturati Water M Sedimel Drift Dej Algal Ma Iron Dep	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)		Salt Crust	t (B11) Nvertebrate Sulfide O on Water Rhizosphe not tilled) of Reduce & Surface	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7)	ing Roots	C3) Crayfish Geomor	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) I Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2)
Surface     High Wa     Saturati     Water M     Sedimen     Drift De     Algal Ma     Iron Dep     Inundati	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	Imagery (B7	Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized I (where Presence Thin Mucl 7) Other (Ex	t (B11) overtebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots I)	C3) Crayfish Geomor Geomor C3) Crayfish C3 C7 C7 C7 C7 C7 C7 C7 C7 C7 C7 C7 C7 C7	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) b Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Saturati Sufface High Wa Saturati Water M Sedime Drift Dep Algal Ma Iron Dep Inundati Water-S	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9)	Imagery (B7	Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized I (where Presence Thin Mucl	t (B11) overtebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots I)	Cay Crayfish Saturation FAC-Ne	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Surface     Surface     High Wa     Saturati     Water M     Sedime     Drift De     Algal Ma     Iron Dep     Inundati     Water-S     Field Obser	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) <b>Tvations:</b>	Imagery (B7	Salt Crust	t (B11) avertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Cayfish Cayfish Cayfish Cayfish Cayfish Cayfish Cayfish Cayfish Cayfish Cayfish FAC-Ne Frost-He	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) n Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Surface     High Wa     Saturati     Water M     Sedime     Drift De     Algal Ma     Iron Dep     Inundati     Water-S     Field Obser     Surface Water	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) <b>Tvations:</b> ter Present?	Imagery (B7	Salt Crust Crust Salt Crust Aquatic Ir Hydrogen Ory-Sease Oxidized (where Presence Thin Mucl Thin Mucl No XDepth (ir	t (B11) nvertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Surface     Sparsely     Drainag     Oxidized     (C3) (wher     Crayfish     Saturatio     Geomor     FAC-Ne     Frost-He	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) b Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Surface Surfa	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present?	Imagery (B7 /es 1 /es 1	Salt Crust Aquatic Ir Hydrogen Ury-Sease Oxidized I (where Presence Thin Mucl T) Oxter (Ex No x Depth (ir	t (B11) overtebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re nches): nches):	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Surface     Sparsely     Drainag     Oxidized     (C3) (wher     Crayfish     Saturation     Geomor     FAC-Ne     Frost-He	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) b Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Surface     High Water M     Saturati     Water M     Sedime     Drift De     Algal Ma     Iron Dep     Inundati     Water-S     Field Obser     Surface Wate     Vater Table     Saturation P	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) <b>vations:</b> ter Present?	Imagery (B7 /es I /es I /es I	Salt Crust Aquatic Ir Hydrogen Ury-Sease Oxidized I (where Presence Thin Mucl Thin Mucl No X Depth (ir No X Depth (ir	t (B11) avertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re aches): aches):	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Surface     Sparsely     Drainag     Oxidized     (C3) (when     Crayfish     Saturation     Geomor     FAC-Ne     Frost-He	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) a Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes X No
Surface     High Waiter M     Saturati     Water M     Sedime     Drift De     Algal Ma     Iron Dep     Inundati     Water-S     Field Obser     Surface Wate     Vater Table     Saturation P     (includes cap     Describe Re	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) Vations: ter Present? Present? Present? pillary fringe) coorded Data (stream	Imagery (B7 /es 1 /es 1	Salt Crust  Aquatic Ir  Aquatic Ir  Hydrogen  Dry-Sease  Oxidized I  (where  Presence  Thin Mucl  r) Other (Ex  No <u>x</u> Depth (in  No <u>x</u> Depth (in  nitoring well aerial	t (B11) avertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re aches): aches):	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Surface     Sparsely     Drainag     Oxidized     Crayfish     Saturatie     Geomor     FAC-Ne     Frost-He  Iand Hydrology Pr  if available:	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) a Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes X No
Surface     High Wa     Saturati     Water M     Sedime     Drift De     Algal Ma     Iron De     Inundati     Water-S     Field Obser     Surface Wate     Saturation P     (includes cag     Describe Re	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) <b>vations:</b> ter Present?	Imagery (B7 /es I /es I /es I n gauge, mo	Salt Crust Aquatic Ir Hydrogen Ury-Sease Oxidized I (where Presence Thin Mucl r) Other (Ex No x Depth (ir No x Depth (ir nitoring well, aerial	t (B11) avertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re nches): nches): photos, pl	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) revious ins	ing Roots ) Wetl pections),	Surface Sparsely Drainag Oxidized (C3) (wher Crayfish Saturation Geomor FAC-Ne Frost-He Iand Hydrology Pr if available:	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) b Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes X No
Surface Surfa	Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) <b>rvations:</b> ter Present?	Imagery (B7 Yes I Yes I Yes I n gauge, mo	Salt Crust Aquatic Ir Hydrogen Ury-Sease Coxidized I (where Presence Thin Mucl Thin Mucl Thin Mucl No X Depth (ir No X Depth (ir No X Depth (ir nitoring well, aerial	t (B11) avertebrate Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> of Reduce k Surface plain in Re aches): hches): photos, pr	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots ) — — — — — WetI pections),	Surface     Sparsely     Drainag     Oxidized     Crayfish     Saturation     Geomor     FAC-Ne     Frost-He  land Hydrology Pr , if available:	Soil Cracks (B6) y Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes <u>X</u> No



Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fanr	nin	Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 482
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): <u>Southwest Prairies</u> Lat: <u>33</u>	.46276 L	ong: <u>-95.91907</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 ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	v disturbed? Are "No	rmal Circumstances" p	resent? Yes X No
Are Vegetation, Soil x, or Hydrology naturally pr	oblematic? (If neede	ed, explain any answei	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point loc	ations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u> Yes	No No No	Is the Sampled Area within a Wetland?	Yes	No <u>×</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. Celtis laevigata	10	No	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	50	Yes	FAC	(excluding FAC-): <u>5</u> (A)
3. Fraxinus pennsylvanica	20	Yes	FAC	Total Number of Dominant
4. Maclura pomifera	10	No	FACU	Species Across All Strata: <u>3</u> (B)
700 #	90	= Total Cov	/er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq II )	_		=	That Are OBL, FACW, or FAC: 100% (A/B)
1. Fraxinus pennsylvanica	5	No	FAC	Drevelance in dev washedeet:
2. Gleditsia triacanthos	5	No	FAC	Prevalence Index worksneet:
3. Ulmus crassifolia	5	No	FAC	Total % Cover of:Multiply by:
4. Celtis laevigata	5	No	FAC	OBL species x 1 =
5.				FACW species x 2 =
	20	= Total Cov	/er	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )				FACU species x 4 =
1. Carex cherokeensis	15	Yes	FACW	UPL species x 5 =
2. Ptilimnium nuttallii	5	No	FACW	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%
0				$3$ - Prevalence Index is $\leq 3.0^1$
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
450 #	20	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft )				Indicators of hydric soil and wetland hydrology must
1				
2				Hydrophytic
% Bare Ground in Herb Stratum 80%	0	= Total Cov	/er	Vegetation Present? Yes X No
Remarks:				

	Matrix		Rede	ox Feature	s			
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-4	10 YR 3/1	100						
4-18	10 YR 3/1	98	10 YR 4/6	2	С	М	Clay	
					·			
		_		_				
Type: C=C	oncentration, D=De	pletion, RN	/=Reduced Matrix, C	S=Covere	d or Coate	d Sand G	rains. <sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.
lydric Soil	Indicators: (Appli	cable to a	II LRRs, unless othe	rwise no	ted.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :
 Histosol	(A1)		Sandy	Gleyed M	atrix (S4)		🔲 1 cm Muck	(A9) ( <b>LRR I, J</b> )
Histic E	pipedon (A2)		Sandy	Redox (S	5)		🔲 Coast Prair	rie Redox (A16) ( <b>LRR F, G, H</b> )
Black H	istic (A3)		Strippe	d Matrix (	S6)		🔲 Dark Surfa	ce (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High Plains	s Depressions (F16)
Stratifie	d Layers (A5) ( <b>LRR</b>	<b>F</b> )	Loamy	Gleyed M	atrix (F2)		(LRR H	outside of MLRA 72 & 73)
1 cm Mi	uck (A9) ( <b>LRR F, G</b> ,	, H)	Deplete	ed Matrix	(F3)		Reduced V	′ertic (F18)
Deplete	d Below Dark Surfa	ce (A11)	Redox	Dark Surf	ace (F6)		Red Paren	t Material (TF2)
Thick D	ark Surface (A12)			ed Dark S	urface (F7)	)	Very Shallo	ow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)			Depressio	ons (F8)		Other (Exp	lain in Remarks)
2.5 cm I	Mucky Peat or Peat	(S2) (LRR	<b>G, H</b> ) <u></u> High Pl	ains Depr	essions (F	16)	Indicators of h	ydrophytic vegetation and
5 cm IVI	ucky Peat or Peat (	53) ( <b>LRR F</b>	·) (ML	-RA /2 &	73 OF LRR	( <b>H</b> )	wetland hyd	drology must be present,
estrictive	l aver (if present):							urbed of problematic.
Type	Euger (in present).							
1 ypc								cont2 Voc X No
Denth (in	chae).						HVARIC SOIL PRO	
Depth (in	ches):						Hydric Soll Pres	
Depth (in Remarks:	ches):						Hydric Soll Pre	
Depth (in Remarks: Redox fe	atures preser	nt; Tinn	clay, occasion	ally floo	oded is	nationa	ally listed hydr	ic soil; naturally dark soil
Depth (in Remarks: Redox fe	ches):	nt; Tinn	clay, occasiona	ally floc	oded is	nationa	ally listed hydr	ic soil; naturally dark soil
Depth (in Remarks: Redox fe YDROLO	atures preser	nt; Tinn	clay, occasiona	ally floc	oded is	nationa	ally listed hydr	ic soil; naturally dark soil
Depth (in Remarks: Redox fe YDROLO Wetland Hy	ches): atures preser GY drology Indicators	nt; Tinn	clay, occasion	ally floc	oded is	nationa	ally listed hydr	ic soil; naturally dark soil
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi	ches): atures preser GY drology Indicators cators (minimum of	nt; Tinn s: one require	clay, occasiona	ally floc	oded is	nationa	ally listed hydr	ic soil; naturally dark soil
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface	ches): catures preser GY drology Indicators cators (minimum of Water (A1)	nt; Tinn s: one require	clay, occasiona	ally floc	oded is	nationa	Ally listed hydr	tic soil; naturally dark soil
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2)	nt; Tinn s: one require	ed: check all that app	ally floc	oded is	nationa	Ally listed hydr	tic soil; naturally dark soil
Depth (in Remarks: Redox fe Vortland Hy Verland Hy Vrimary Indi Surface High Wa Saturati	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3)	nt; Tinn s: one require	ed; check all that app	ally floc	es (B13)	nationa	Ally listed hydr	tic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10)
Depth (in Remarks: Redox fe COROLO Vetland Hy Irimary Indi Surface High Wa Saturati Water M	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) farks (B1)	nt; Tinn s: one requir	ed; check all that app Salt Crust Aquatic In Drv-Sease	ally floc	es (B13) dor (C1) Table (C2)	nationa	Ally listed hydr	ric soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2)	nt; Tinn :: one requir	ed; check all that app Clay, occasiona ed; check all that app Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized	ally floc	es (B13) dor (C1) Table (C2)		Ally listed hydr	ic soil; naturally dark soil idicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3)	nt; Tinn s: one requir	ed; check all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where	ally floc	es (B13) dor (C1) Table (C2) eres on Liv	nationa	Ally listed hydr	ic soil; naturally dark soil <u>ndicators (minimum of two required)</u> Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4)	nt; Tinn s: one requir	ed; check all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease (where Presence	ally floc	es (B13) dor (C1) Table (C2) eres on Liv	ing Roots	Ally listed hydr	ic soil; naturally dark soil <u>ndicators (minimum of two required)</u> Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imageny (C9)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) cating (B5)	nt; Tinn s: one require	ed; check all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where This Mud	ally floc	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4	nationa ing Roots	Ally listed hydr	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phile Rooitign (D2)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Saturati Saturati Drift De Algal Ma Iron De	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Asciel	nt; Tinn s: one require	ed; check all that app Salt Crust Aquatic Ir Hydrogen Dry-Sease Oxidized (where Presence Thin Muck	ally floc	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7)	nationa ing Roots	Ally listed hydr	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Saturati Unift De Algal Ma Iron Dep Inundati	ches): catures preser ogy drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial	nt; Tinn s: one require	clay, occasiona ed; check all that app Salt Crust Aquatic In Hydrogen Dry-Sease Oxidized (where Presence Thin Mucl B7) Other (Ex	ally floc	oded is es (B13) dor (C1) Table (C2) eres on Liv ) ed Iron (C4 (C7) emarks)	nationa	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Geomor FAC-Ne	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Saturati Water N Sedime Drift De Algal Ma Iron Dej Inundati Water-S	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9)	nt; Tinn s: one requir	clay, occasiona	ally floc	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Ally listed hydr Secondary Ir Surface Sparsely C3) (C3) (where C3) C3 C3 C3 C3 C3 C3 C3 C3 C3 C3	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3) e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Algal M: Iron De Inundati Water-S	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations:	nt; Tinn s: one requir	clay, occasiona	ally floc	oded is es (B13) idor (C1) Table (C2) eres on Liv ) ed Iron (C4 (C7) emarks)	ing Roots	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Geomor FAC-Ne Frost-He	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Algal Ma Iron Dej Inundati Water-S Field Obser	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present?	nt; Tinn s: one requir	clay, occasiona	ally floc	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Geomor FAC-Ne Frost-He	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Drift De Inundati Iron De Inundati Water S Field Obser Surface Water	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present?	nt; Tinn s: one requir one requir Yes Yes	clay, occasiona	ally floc	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Geomor FAC-Ne Frost-He	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F)
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water N Sedime Drift De Algal Ma Iron Dep Inundati Water-S Field Obser Surface Water Vater Table Saturation P	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present? Present?	nt; Tinn s: one require I Imagery (I Yes Yes Yes	clay, occasiona	ally floc	oded is es (B13) dor (C1) Table (C2) eres on Liv ) ed Iron (C4 (C7) emarks)	ing Roots	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Crayfish Saturatio Geomor FAC-Ne Frost-He	ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes No _X
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Saturati Water N Sedime Drift De Algal M: Unon Dej Inundati Water Sedime Caturation P Saturation P Saturation P Saturation P Saturation P Saturation P Saturation P Saturation P Saturation P Saturation P	ches): ches): catures preser drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present? pillary fringe) coorded Data (stream	I Imagery (I Yes Yes Yes	clay, occasiona	ally floc	oded is es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots 4)	Ally listed hydr	ric soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes No
Depth (in Remarks: Redox fe YDROLO Vetland Hy Yrimary Indi Surface High Wa Saturati Vater M Sedime Drift De Algal Ma Iron De Inundati Water-S Gield Obser Surface Water Vater Table Saturation P ncludes ca Describe Re	ches): catures preser oGY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present? present present present present present present	nt; Tinn s: one requir one requir (I l Imagery (I Yes Yes Yes Yes	clay, occasiona	ally floc	oded is es (B13) idor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks) revious ins	ing Roots 4)  Wetl pections),	Ally listed hydr Secondary Ir Surface Sparsely Crayfish Crayfish Saturatic Geomor FAC-Ne Frost-He	ic soil; naturally dark soil idicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes NoX
Depth (in Remarks: Redox fe YDROLO Vetland Hy Primary Indi Surface High Wa Saturati Water M Sedime Drift De Drift De Inon Dep Inon Dep Inon Dep Sedime Caturation P ncludes ca Describe Re	ches): catures preser GY drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present? present? pillary fringe) corded Data (strear	I Imagery (I Yes Yes Yes m gauge, n	clay, occasiona	ally floc	oded is es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks)	ing Roots 4) Wetl pections),	Ally listed hydr Secondary Ir Surface Sparsely Drainage Oxidized (C3) (where Crayfish Crayfish Geomor FAC-Ne Frost-Hee And Hydrology Pre- if available:	ic soil; naturally dark soil ic soil; naturally dark soil ndicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes No
Depth (in Remarks: Redox fe YDROLO Vetland Hy Yrimary Indi Surface High Wa Saturati Water N Sedime Drift De Algal Ma Iron De Inundati Water Sedime Caturation P ncludes ca Describe Re Remarks:	ches): catures preser ogy drology Indicators cators (minimum of Water (A1) ater Table (A2) on (A3) Marks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) ion Visible on Aerial Stained Leaves (B9) vations: ter Present? Present? pillary fringe) corded Data (strear	I Imagery (I Yes Yes Yes m gauge, n	clay, occasiona	ally floc	oded is es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks) revious ins	ing Roots 4)  Wetl pections),	Ally listed hydr	ic soil; naturally dark soi idicators (minimum of two required) Soil Cracks (B6) / Vegetated Concave Surface (B8) e Patterns (B10) d Rhizospheres on Living Roots (C3 e tilled) Burrows (C8) on Visible on Aerial Imagery (C9) phic Position (D2) utral Test (D5) eave Hummocks (D7) (LRR F) esent? Yes No _X





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fanr	Sampling Date: 5/31/2017	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 512
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.	46313 L	ong: <u>-95.91921</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 ye	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "No	rmal Circumstances" p	resent? Yes X No
Are Vegetation, Soil x, or Hydrology naturally pr	oblematic? (If need	ed, explain any answer	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point loc	ations, transects	, important features, etc.

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

depressional area associated with former channel scar; not hydraulically connected to any 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. Quercus macrocarpa	10	No	FACU	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	60	Yes	FAC	(excluding FAC-): (A)
3. Fraxinus pennsylvanica	10	No	FAC	Total Number of Dominant
4				Species Across All Strata: 1 (B)
	80	= Total Cov	er	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
1. Ulmus crassifolia	5	No	FAC	
2				Prevalence Index worksheet:
3.				Total % Cover of:Multiply by:
4				OBL species $\frac{8}{x + 1} = \frac{8}{x + 1}$
5				FACW species $5$ x 2 = $10$
	5	- Total Car		FAC species $80$ x 3 = $240$
Herb Stratum (Plot size: <sup>450</sup> sq ft )			ei	FACU species $10$ x 4 = $40$
1. Carex crus-corvi	8	No	OBL	UPL species x 5 =
2 Ptilimnium nuttallii	5	No	FACW	Column Totals: 103 (A) 298 (B)
Amaranthus tuberculatus	5	No	FAC	
аа				Prevalence Index = $B/A = \frac{2.89}{2.89}$
				Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				✓ 2 - Dominance Test is >50%
7			·	$\checkmark$ 3 - Prevalence Index is $\leq 3.0^{1}$
8			<u> </u>	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9			. <u> </u>	data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
150 cg ft	18	= Total Cov	er	The direction of the data and the direction of the data sector of
Woody Vine Stratum (Plot size: 450 Sq It )				Indicators of hydric soil and wetland hydrology must
1			<u> </u>	
2				Hydrophytic
82	0	= Total Cov	er	Vegetation Present? Yes <sup>X</sup> No
% Bare Ground in Herb Stratum 02				
Kemarks:				

Profile Des	cription: (Describe	to the dep	th needed to docur	ment the	indicator	or confirr	m the absence of	indicators.)
Depth	Matrix	0/	Redo	x Feature	es Trans 1	1 2	<b>T</b>	Deveda
(inches)		%	Color (moist)	%	Type	LOC		Remarks
0-10	10 TK 3/1	90						
4-18			10YR 4/6	2	C	M	Clay	
					<u> </u>			
							·	
							·	
							·	
<sup>1</sup> Type: C=C	concentration, D=De	pletion, RM=	Reduced Matrix, CS	S=Covere	ed or Coate	ed Sand G	irains. <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applie	cable to all	LRRs, unless othe	rwise no	ted.)		Indicators fo	r Problematic Hydric Soils":
	l (A1)		Sandy (	Gleyed M	atrix (S4)			ck (A9) (LRR I, J)
	pipedon (AZ)			Redox (S A Matrix (	5) S6)			ane Redox (A16) (LRR F, G, H)
	en Sulfide (A4)			Mucky Mi	ineral (F1)		High Plai	ns Depressions (F16)
	d Layers (A5) (LRR	F)		Gleyed N	latrix (F2)		(LRR	H outside of MLRA 72 & 73)
🔲 1 cm M	uck (A9) (LRR F, G,	H)	Deplete	d Matrix	(F3)		Reduced	Vertic (F18)
	ed Below Dark Surface	ce (A11)	Redox I	Dark Surf	ace (F6)		Red Pare	ent Material (TF2)
	ark Surface (A12)			d Dark S	urface (F7)	)	Very Sha	llow Dark Surface (TF12)
Sandy I	Mucky Mineral (S1)	(S2) (I DD (		Depressio	ons (F8)	(16)	Uther (Ex	(plain in Remarks)
$\square$ 2.5 cm M	ucky Peat or Peat (S	(32) (LRR ( 3) (I RR F)	(MI) <u> </u>	RA 72 &	73 of I RR	P H)	wetland h	vdrology must be present
		,o) ( <b>L</b> itti )	(			,	unless dis	sturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (ir	iches):						Hydric Soil Pr	esent? Yes X No
Remarks:								
Redox fe	atures observ	ed; linn	clay, occasion	hally flo	boded is	s natior	hally listed hy	/dric soil; naturally dark soil
HYDROLO	)GY							
Wetland Hy	drology Indicators							
Primary Indi	cators (minimum of	• one required	d: check all that and	V)			Secondary	Indicators (minimum of two required)
	Water (A1)			<u>y)</u> (B11)		 -		e Soil Cracks (B6)
	ater Table ( $\Delta 2$ )			(DTT) vertebrati	as (B13)			e Son Cracks (BO)
	ion (A3)			Sulfide C	dor (C1)			ge Patterns (B10)
Water N	Aarks (B1)		Dry-Seaso	on Water	Table (C2)			ed Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)			Rhizosphe	eres on Liv	ring Roots	(C3) (whe	ere tilled)
Drift De	posits (B3)		(where	not tilled	)	0	Crayfis	sh Burrows (C8)
Algal M	at or Crust (B4)		Presence	of Reduc	ed Iron (C4	4)	Satura	tion Visible on Aerial Imagery (C9)
Iron De	posits (B5)		Thin Muck	Surface	(C7)		Geomo	orphic Position (D2)
Inundat	ion Visible on Aerial	Imagery (B	7) 🔲 Other (Exp	olain in R	emarks)		FAC-N	leutral Test (D5)
Water-S	Stained Leaves (B9)						Frost-H	Heave Hummocks (D7) (LRR F)
Field Obse	rvations:							
Surface Wa	ter Present?	res	No X Depth (in	ches):		_		
Water Table	Present?	Yes	No x Depth (in	ches):		_		
Saturation F	Present?	Yes	No x Depth (in	ches):		Wet	land Hydrology F	Present? Yes X No
Describe Re	corded Data (stream	n gauge, mo	onitoring well. aerial	photos. n	revious ins	spections)	, if available:	
		J		,, p		,	,	
Remarks:								
denress	ional area ass	nciatad	with former o	hanno	lscar			
uopi033					1 5001			





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: WP581
Investigator(s): <u>Jason Voight, Andrew Sample</u>	_ 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: <u>33</u>	33.45307 Long: -95.97526 Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded	NWI classification: none
Are climatic / hydrologic conditions on the site typical for this time of y	year? Yes X No (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantl	tly disturbed? Are "Normal Circumstances" present? Yes X No
Are Vegetation, SoilX, or Hydrology naturally p	problematic? (If needed, explain any answers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	ng sampling point locations, transects, important features, etc.
Hydrophytic Vegetation Present?       Yes X       No         Hydric Soil Present?       Yes No       X         Wetland Hydrology Present?       Yes No       X         Remarks:       X       X	Is the Sampled Area     within a Wetland?   Yes NoX

Heavy storms the previous day; outside the forested wetland delineated at wp418

	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. Fraxinus pennsylvanica	10	No	FAC	That Are OBL, FACW, or FAC
2. Ulmus americana	35	Yes	FAC	(excluding FAC-):4 (A)
3. Celtis laevigata	35	Yes	FAC	Total Number of Dominant
4.				Species Across All Strata: 5 (B)
	80	= Total Co	ver	Dereent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: <sup>80</sup> (A/B)
1. Ulmus americana	5	No	FAC	
2. Celtis laevigata	10	No	FAC	Prevalence Index worksheet:
3. Fraxinus pennsylvanica	20	Yes	FAC	Total % Cover of:Multiply by:
4 Quercus muehlenbergii	5	No	FAC	OBL species x 1 =
5 Acer negundo	5	No	FAC	FACW species x 2 =
	45	- Total Co	vor	FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )			VEI	FACU species x 4 =
	35	Yes	FAC	UPL species x 5 =
2 Torilis arvensis	10	No	UPL	Column Totals: (A) (B)
3 Ambrosia trifida	10	No	FAC	
4. Parthenocissus quinquefolia	10	No	FACU	Prevalence Index = B/A =
5 Toxicodendron radicans	30	Yes	FACU	Hydrophytic Vegetation Indicators:
6			·	1 - Rapid Test for Hydrophytic Vegetation
7			·	2 - Dominance Test is >50%
7			·	$\square$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8			·	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10			·	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weady Vine Stratum (Plat aize: 450 Sq ft )	95	= Total Co	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
A Parthenocissus quinquefolia	5	No	FACU	be present, unless disturbed or problematic.
		No	FAC	
2		110	1.40	Hydrophytic Vegetation
% Bare Ground in Herb Stratum 5	10	= Total Co	ver	Present? Yes X No
Remarks:				

SUL
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Profile Desc	cription: (Describe	to the depth n	eeded to docur	nent the i	ndicator	or confirn	n the absence of	indicators.)	
Depth	Matrix		Redo	x Feature	s				
(inches)	Color (moist)	%(	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remark	(S
0-18	10 YR 3/1	100					Clay		
·							<u> </u>		
<u> </u>							<u> </u>		
							<u> </u>		
				·			·		<u> </u>
<sup>1</sup> Type: C=C	oncentration, D=Dep	oletion, RM=Red	duced Matrix, CS	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> Locati	ion: PL=Pore Lining	, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LRF	Rs, unless othe	rwise not	ed.)		Indicators for	r Problematic Hydr	ric Soils':
Histosol	(A1)		Sandy (	Gleyed Ma	atrix (S4)		1 cm Muc	ck (A9) ( <b>LRR I, J</b> )	
Histic E	pipedon (A2)		Sandy F	Redox (S5	5)		Coast Pra	airie Redox (A16) (L	RR F, G, H)
Black Hi	istic (A3)		Stripped	d Matrix (S	6)		Dark Surf	face (S7) (LRR G)	
Hydroge	en Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		High Plai	ns Depressions (F16	6) 
	d Layers (A5) (LRR I	F)		Gleyed Ma	atrix (F2)			H outside of MLRA	72 & 73)
	JCK (A9) (LRR F, G, d Bolow Dork Surfac	H)		a Matrix (I	F3)			Vertic (F18)	
	u Below Dark Sullac ark Surface (Δ12)	e (ATT)		d Dark Suite	ice (F0) irface (F7)			llow Dark Surface (1	(F12)
Sandy M	Aucky Mineral (S1)			Depressio	ns (F8)		Other (Ex	olain in Remarks)	(1 1 <i>2)</i>
2.5 cm	Mucky Peat or Peat (	(S2) ( <b>LRR G. H</b>	) High Pla	ains Depre	essions (F	16)	<sup>3</sup> Indicators of	hvdrophytic vegetat	ion and
5 cm Mu	ucky Peat or Peat (S	3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetland h	vdrology must be pr	resent,
	, (	, ( ,	, , , , , , , , , , , , , , , , , , ,			,	unless dis	sturbed or problema	tic.
Restrictive	Layer (if present):								
Туре:			_						
Depth (in	ches):		_				Hydric Soil Pr	esent? Yes	X
Remarks:									
No redox	x features; Tir	nn clay, oc	casionally	floode	ed is na	tionally	y listed hyd	ric soil; natura	ally dark soil
		<u> </u>	,				, , , , , , , , , , , , , , , , , , ,		,
HYDROLO	GY								
Wetland Hy	drology Indicators:								
Primary Indi	cators (minimum of c	one required; ch	eck all that appl	V)			Secondary	Indicators (minimun	n of two required)
	Water (A1)		Salt Crust	(B11)				e Soil Cracks (B6)	
High Wa	ater Table (A2)			(=) vertebrate	s (B13)			elv Vegetated Conca	ive Surface (B8)
Saturatio	on (A3)			Sulfide Or	dor (C1)			ge Patterns (B10)	(10) 0 0 1 1 0 0 (1 0)
Water M	larks (B1)		Dry-Seaso	n Water T	Table (C2)			ed Rhizospheres on	Living Roots (C3)
	nt Deposits (B2)			?hizosohe	res on Livi	na Roots	(C3) (whe	are tilled)	
	nosits (B3)		(where i	not tilled)		ing ittooto		sh Burrows (C8)	
	at or Crust (B4)			of Reduce	d Iron (C4	)		tion Visible on Aeria	Imagery (C9)
	nosits (B5)			Surface (	(C7)	)		arphic Position (D2)	initiagery (00)
	on Visible on Aerial	Imagery (B7)			marks)			leutral Test (D5)	
Water-S	stained Leaves (B9)	inagery (B7)			markoj		Erost-H	Heave Hummocks ([	)7) ( <b>I RR F</b> )
Field Obser	vations:								
Surface Wot	er Present?		X Depth (in	chee).					
Mator Toble			X Dopth (in	chec).		-			
			X Depth (In	ones)				Propont? Vac	No X
(includes ca	pillary fringe)	Co 100 _		uies):			and Hydrology P		

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

Remarks:





Project/Site: Lake Ralph Hall Supplemental JD	City/County:	_ City/County: Ladonia/Fannin Sampling Date		
Applicant/Owner: Upper Trinity Regional Water District		State: <u>TX</u> San	npling Point: WP582	
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> La	t: <u>33.45273</u>	Long:95.97502	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally flooded		NWI classification	n: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time	e of year? Yes X	No (If no, explain in Rema	rks.)	
Are Vegetation, Soil, or Hydrology signified	cantly disturbed?	Are "Normal Circumstances" prese	ent? Yes X No	
Are Vegetation, Soil X, or Hydrology natura	ally problematic?	(If needed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transects, im	portant features, etc.	
Hydrophytic Vegetation Present? Yes No	x	O-mula d Ama		

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes Yes	No <u>X</u> No <u>X</u>	Is the Sampled Area	Vee	No. X
Wetland Hydrology Present?	Yes	No <u>X</u>	within a wetland?	res	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 )	<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	60	Yes	FAC	(excluding FAC-): (A)
3				Total Number of Dominant
4				Species Across All Strata:3 (B)
	70	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC:33.3 (A/B)
1. Celtis laevigata	5	No	FAC	
2				Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
4.				OBL species $0$ $x 1 = 0$
5				FACW species $\underline{0}$ $x 2 = \underline{0}$
···	5	- Total Cov		FAC species $105$ x 3 = $315$
Herb Stratum (Plot size: <sup>450</sup> sq ft )		- 10101000		FACU species $45$ x 4 = $180$
1. Elymus virginicus	5	No	FAC	UPL species $\frac{0}{x5} = \frac{0}{x5}$
2 Amaranthus tuberculatus	8	No	FAC	Column Totals: 150 (A) 495 (B)
3. Ambrosia trifida	10	No	FAC	
4. Campsis radicans	20	Yes	FACU	Prevalence Index = $B/A = \frac{3.3}{2}$
5. Toxicodendron radicans	20	Yes	FACU	Hydrophytic Vegetation Indicators:
6. Erigeron annuus	2	No	FACU	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 <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10	65			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	00	= I otal Cov	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1. Parthenocissus quinquefolia	5	No	FACU	be present, unless disturbed or problematic.
2.	5	No	FAC	Hydrophytic
	10	= Total Cov	ver	Vegetation
% Bare Ground in Herb Stratum 35				Present? Yes No X
Remarks:				•

SUL
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Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	indicator of	or confirm	n the absence of i	ndicators.)		
Depth	Matrix		Redo	ox Feature	S					
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	10 YR 2/1	100					Clay			
	· ·				·		·			
. <u> </u>	- <u></u>									
							·			
					·		·			
	·				·					
<sup>1</sup> Type: C=C	Concentration, D=Dep	pletion, RM=R	educed Matrix, C	S=Covered	d or Coate	d Sand Gr	rains. <sup>2</sup> Locatio	on: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Applic	able to all LR	Rs, unless othe	rwise not	ed.)		Indicators for	Problematic Hydric Soils <sup>3</sup> :		
Histoso	l (A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Mucl	k (A9) ( <b>LRR I, J</b> )		
Histic E	pipedon (A2)		Sandy	Redox (S5	5)		Coast Prai	irie Redox (A16) ( <b>LRR F, G, H</b> )		
Black H	listic (A3)		Strippe	d Matrix (S	56)		Dark Surfa	ace (S7) (LRR G)		
Hydrog	en Sulfide (A4)	<b>F</b> \		Mucky Mir	neral (F1)		High Plains Depressions (F16)			
		F) U)		Gleyed Matrix (	amx (F∠) E2)		(LKK II OUISIGE OF MLKA / 2 & / 3)			
	ed Below Dark Surfac	ce (A11)		Dark Surfa	ace (F6)		Red Parent Material (TF2)			
Thick D	ark Surface (A12)			ed Dark Su	Irface (F7)		Very Shallow Dark Surface (TF12)			
Sandy I	Mucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (Exp	plain in Remarks)		
2.5 cm	Mucky Peat or Peat	(S2) ( <b>LRR G,</b>	H) 🛛 🛛 High Pl	ains Depre	essions (F	16)	<sup>3</sup> Indicators of h	hydrophytic vegetation and		
🔲 5 cm M	ucky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	RA 72 & 7	73 of LRR	H)	wetland hy	drology must be present,		
							unless dis	turbed or problematic.		
Restrictive	Layer (if present):									
Туре:										
Depth (ir	nches):						Hydric Soil Pre	esent? Yes <u>No <sup>X</sup></u>		
Remarks:										
No redo	x features; Ti	nn clay, o	occasionally	floode	ed is na	tionally	y listed hydr	ic soil; naturally dark soil		
HYDROLC	DGY									
Wetland Hy	/drology Indicators									
Primary Ind	icators (minimum of o	one required; o	check all that app	ly)			Secondary I	ndicators (minimum of two required)		
	e Water (A1)		Salt Crust	: (B11)			Surface	Soil Cracks (B6)		
High W	ater Table (A2)		Aquatic In	vertebrate	es (B13)			y Vegetated Concave Surface (B8)		
Saturat	ion (A3)		Hydrogen	Sulfide O	dor (C1)			je Patterns (B10)		
	Marks (B1)			on Water T	Table (C2)			d Rhizospheres on Living Roots (C3)		
Sedime	ent Deposits (B2)		Oxidized I	Rhizosphe	res on Livi	ng Roots	(C3) (wher	re tilled)		
Drift De	eposits (B3)		(where	not tilled)				n Burrows (C8)		
Algal M	lat or Crust (B4)			of Reduce	ed Iron (C4	.)	Saturati	on Visible on Aerial Imagery (C9)		
Iron De	posits (B5)			< Surface (	(C7)			rphic Position (D2)		
Inundation Visible on Aerial Imagery (B7)							FAC-Ne	eutral Test (D5)		
Water-S	Stained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)		
Field Obse	rvations:		V							
Surface Wa	ter Present?	res No	Depth (in	iches):						
Water Table	e Present?	/es No	X Depth (in	iches):		_				
Saturation F	Present?	/es No	X Depth (in	iches):		Wetl	and Hydrology Pr	resent? Yes NoX		
Describe Re	ecorded Data (strean	n gauge, moni	toring well, aerial	photos, pr	evious ins	pections).	if available:			

Remarks:







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: WP585	
Investigator(s): Jason Voight, Andrew Sample	Section, Tow	nship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (	_ Local relief (concave, convex, none): Concave Slope (		
Subregion (LRR): Southwest Prairies	at: <u>33.45207</u>	Long: <u>-95.9732</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	emarks.)	
Are Vegetation, Soil, or Hydrology signifi	icantly disturbed?	Are "Normal Circumstances" p	present? Yes X No	
Are Vegetation, SoilX, or Hydrology natura	ally problematic?	(If needed, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map sho	wing sampling	point locations, transects	, important features, etc.	

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

Heavy storms the previous day; 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	50	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	15	Yes	FAC	(excluding FAC-): <u>2</u> (A)
3. Ulmus crassifolia	5	No	FAC	Total Number of Dominant
4.				Species Across All Strata: 2 (B)
	70	= 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. Fraxinus pennsylvanica	_			Prevalence Index worksheet:
3. Ulmus crassifolia				Total % Cover of: Multiply by:
4	_			OBL species x 1 =
5				FACW species x 2 =
···	5	- Total Cov		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )		- 10181 001		FACU species x 4 =
1. Toxicodendron radicans	5	No	FACU	UPL species x 5 =
2. <u>Viola missouriensis</u>	2	No	FACW	Column Totals: (A) (B)
3. Ambrosia trifida	8	No	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 $\leq 3.0^1$
o				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
3		·		data in Remarks or on a separate sheet)
10	15			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	15	= Total Cov	ver	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1 Toxicodendron radicans/Campsis radicans	5/5	No	FACU/FACU	be present, unless disturbed or problematic.
2 Smilax bona-nox	5	No	FACU	Hydrophytic
	15	- Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 85		- 10101001		Present? Yes X No
Remarks:				

Depth	ription: (Describe Matriv	e to the dep	tn needed to docul	ment the i	indicator	or confirm	n the absence o	of indicators.)		
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks		
0-18	10 YR 2/1	95	10 YR 4/6	5	С	Μ	Clay			
							·			
					·					
<sup>1</sup> Type: C=Co	oncentration. D=De	pletion. RM:	=Reduced Matrix. C	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.		
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators f	or Problematic Hydric Soils <sup>3</sup> :		
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		🔲 1 cm Mi	uck (A9) ( <b>LRR I, J</b> )		
Histic Ep	pipedon (A2)		Sandy	Redox (S5	5)		🔲 Coast P	Prairie Redox (A16) (LRR F, G, H)		
Black Hi	stic (A3)		Strippe	d Matrix (S	6)		Dark Surface (S7) (LRR G)			
	n Sulfide (A4)	_`		Mucky Mir	neral (F1)		High Plains Depressions (F16)			
	Layers (A5) (LRR	F)		Gleyed Ma	atrix (F2)		(LKK H outside of MLRA 72 & 73)			
	H Below Dark Surfa	п) се (А11)		Dark Surfa	гз) асе (F6)		Red Parent Material (TF2)			
Thick Da	ark Surface (A12)			ed Dark Su	urface (F7)		Very Shallow Dark Surface (TF12)			
Sandy M	lucky Mineral (S1)		Redox	Depressio	ns (F8)		Other (Explain in Remarks)			
2.5 cm N	lucky Peat or Peat	(S2) (LRR (	G, H) 🗌 High Pl	ains Depre	essions (F	16)	<sup>3</sup> Indicators of hydrophytic vegetation and			
🔟 5 cm Mu	icky Peat or Peat (S	63) (LRR F)	(ML	RA 72 & 7	73 of LRR	<b>H</b> )	wetland hydrology must be present,			
							unless o	disturbed or problematic.		
Restrictive I	_ayer (if present):									
Type:										
Depth (ind	ches):						Hydric Soil F	Present? Yes <u>^</u> No		
Remarks:										
Redox fe	atures preser	nt <sup>.</sup> Tinn d	lav occasion	ally floo	oded is	nation	ally listed h	vdric soil: naturally dark soil		
I COUCK TO		it, iiiiit				nation				
HYDROLO	GY									
Wetland Hy	drology Indicators	:								
Primary Indic	cators (minimum of	one require	d; check all that app	ly)			Secondar	y Indicators (minimum of two required)		
Surface	Water (A1)		Salt Crust	: (B11)			🔲 Surfa	ice Soil Cracks (B6)		
🔲 High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)		🗹 Spars	sely Vegetated Concave Surface (B8)		
Saturatio	on (A3)		🔲 Hydrogen	Sulfide O	dor (C1)		Drain	age Patterns (B10)		
✓ Water M	arks (B1)		Dry-Sease	on Water T	Table (C2)		U Oxidi	zed Rhizospheres on Living Roots (C3)		
Sedimer	nt Deposits (B2)		Oxidized I	Rhizosphe	res on Liv	ing Roots	(C3) (wh	nere tilled)		
Drift Dep	oosits (B3)		(where	not tilled)			Crayf	fish Burrows (C8)		
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)	Satur	ation Visible on Aerial Imagery (C9)		
	oosits (B5)			< Surface (	(C7)		Geon Geon	norphic Position (D2)		
Inundatio	on Visible on Aerial	Imagery (B	7) 🔟 Other (Ex	plain in Re	emarks)		FAC-	Neutral Test (D5)		
Water-S	tained Leaves (B9)						Frost	-Heave Hummocks (D7) (LRR F)		
Field Obser	vations:		X							
Surface Wate	er Present?	Yes	No <u>^</u> Depth (in	iches):						
Water Table	Present?	Yes	No <u>^</u> Depth (in	iches):		-		~		
Saturation P	resent?	Yes	No <u>^</u> Depth (in	iches):		Wet	land Hydrology	Present? Yes <u>^</u> No		
Describe Re	corded Data (strear	n gauge, mo	onitoring well, aerial	photos, pr	evious ins	pections).	if available:			
		5 5 7	<b>U</b>			. ,,				
Remarks:										




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 624
Investigator(s): <u>Jason Voight</u> , Andrew Sample	Section, Town	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (co	oncave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	33.46309	Long: -95.91971	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifie	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 signific	antly disturbed?	Are "Normal Circumstances"	present? Yes X No
Are Vegetation, Soil x, or Hydrology natura	lly problematic?	(If needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map show	wing sampling <sub>l</sub>	point locations, transects	, important features, etc.

Hydrophytic Vegetation Present?	Yes x	No	Is the Sampled Area		
Hydric Soil Present?	Yes <u>x</u>	No	within a Wotland?	Voc X	No
Wetland Hydrology Present?	Yes x	No		165	
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	65	Yes	FAC	That Are OBL, FACW, or FAC
2. Celtis laevigata	5	No	FAC	(excluding FAC-): (A)
3. Ulmus crassifolia	10	No	FAC	Total Number of Dominant
4.				Species Across All Strata: 1 (B)
	80	- Total Cov		Demonstrat Demoissont Operation
Sapling/Shrub Stratum (Plot size: 700 sq ft )		- 10101 001		That Are OBL, FACW, or FAC 100% (A/B)
1. Ulmus crassifolia	5	No	FAC	
2 Celtis laevigata	5	No	FAC	Prevalence Index worksheet:
3				Total % Cover of: Multiply by:
3				OBL species <u>12</u> x 1 = <u>12</u>
4				FACW species $8   x 2 = 16$
5	10			FAC species $90$ $x_3 = 270$
Horb Stratum (Plot size: 450 sq ft )	10	= Total Cov	rer	
<u>A Carex crus-corvi</u>	12	No	OBI	
Dtilimpium puttollii	0	No		$\begin{array}{c} \text{OPL species} \\ \text{Opluse Table 110} \\ \text{Opluse 110} \\ $
2. <u>Fuintinuuti tuutann</u>	0	INU	FACW	Column lotais: $(A) = 230$ (B)
3				Prevalence Index = $B/A = 2.71$
4				Hydrophytic Vogotation Indicators:
5				1 Denid Test for Lludrenbytic Vegetation
6				
7.				2 - Dominance Test is >50%
8.				3 - Prevalence Index is ≤3.0
9				4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
10.				Problematic Hydrophytic Vegetation <sup>1</sup> (Evplain)
	20	= Total Cov	rer	
Woody Vine Stratum (Plot size: 450 sq ft )				<sup>1</sup> 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 80				Present? Yes X No
Remarks:				

Profile Desc	ription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence	e of indicators.)	
Depth	Matrix		Redo	x Feature	es1	. 2	_		
(inches)	Color (moist)	%	Color (moist)	%	Туре	Loc	Texture	<u> </u>	
0-1							Organic	surface layer of organic material	
1-4	10 YR 3/1	100					Clay		
4-18	10 YR 3/1	98	10 YR 4/6	2	С	Μ	Clay		
<sup>1</sup> Type: C=Co	oncentration, D=De	oletion, RM	=Reduced Matrix, CS	S=Covere	ed or Coate	ed Sand G	rains. <sup>2</sup> Lo	ocation: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Applie	cable to all	LRRs, unless other	rwise no	ted.)			s for Problematic Hydric Soils':	
	(A1)		Sandy (	Gleyed M	latrix (S4)			Muck (A9) (LRR I, J)	
	orpedon (A2)		Sandy F	Redox (S	5) (S6)			t Prairie Redox (A16) ( <b>LRR F, G, H</b> )	
	STIC (A3)			a iviatrix ( Mucky M	jooral (E1)			Sufface (S7) (LRR G) Plains Depressions (E16)	
	1 avers (A5) (I RR	F)		Gleved M	literal (F1) Astrix (F2)			RR H outside of MI RA 72 & 73)	
	ick (A9) (LRR F. G.	H)		d Matrix	(F3)			ced Vertic (F18)	
Depleted	d Below Dark Surfac	, ce (A11)	Redox [	Dark Surf	face (F6)		Red F	Parent Material (TF2)	
Thick Da	ark Surface (A12)		Deplete	d Dark S	urface (F7	)	Very :	Shallow Dark Surface (TF12)	
Sandy N	lucky Mineral (S1)		Redox [	Depressio	ons (F8)		Other	(Explain in Remarks)	
2.5 cm N	Aucky Peat or Peat	(S2) ( <b>LRR</b>	G, H) 🔛 High Pla	ains Dep	ressions (F	16)	<sup>3</sup> Indicators	s of hydrophytic vegetation and	
5 cm Mu	icky Peat or Peat (S	3) ( <b>LRR F</b> )	(ML	RA 72 &	73 of LRF	R H)	wetland hydrology must be present,		
-							unles	s disturbed or problematic.	
Restrictive	Layer (if present):								
Type:									
Depth (inc	ches):						Hydric Soi	Il Present? Yes <u>^</u> No	
Remarks:									
Redox fe	atures observ	ed. Tinr	, clay, occasion	hally fl	ooded i	s natior	hally listed	hydric soil: naturally dark soil	
							iany notoa		
HYDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary India	cators (minimum of	one require	d; check all that appl	y)			Second	lary Indicators (minimum of two required)	
Surface	Water (A1)		Salt Crust	(B11)			🔲 Su	rface Soil Cracks (B6)	
High Wa	ater Table (A2)		Aquatic In	vertebrat	es (B13)		🗹 Spa	arsely Vegetated Concave Surface (B8)	
Saturatio	on (A3)		Hydrogen	Sulfide C	Odor (C1)			ainage Patterns (B10)	
Water M	larks (B1)		Dry-Seaso	on Water	Table (C2)			idized Rhizospheres on Living Roots (C3)	
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosph	eres on Liv	ing Roots	(C3) (V	where tilled)	
Drift Dep	oosits (B3)		(where I	not tilled	l)	0		ayfish Burrows (C8)	
	at or Crust (B4)		Presence	of Reduc	, ed Iron (C	4)	🗖 Sat	turation Visible on Aerial Imagery (C9)	
	oosits (B5)		Thin Muck	Surface	(C7)	,	🗖 Ge	omorphic Position (D2)	
	on Visible on Aerial	Imagery (B	(Exp	olain in R	emarks)			C-Neutral Test (D5)	
Water-S	tained Leaves (B9)	0 , (	, <u> </u>		,			ost-Heave Hummocks (D7) (LRR F)	
Field Obser	vations:								
Surface Wate	er Present?	/es	No X Depth (in	ches):					
Water Table	Present?	/es	No X Depth (in	ches):		_			
Saturation P	resent?	(es	No X Depth (in	ches):		Wet	land Hydrolog	av Present? Yes <sup>X</sup> No	
(includes cap	pillary fringe)		<u> </u>	onoo).				····	
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, p	previous ins	spections),	, if available:		
Remarks:									
depressi	onal area ass	ociated	l with former c	hanne	el scar				
.									





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: WP626
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conv	ex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies Lat: 33.	45231 Loi	ng: <u>-95.9738</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 "Norn	nal Circumstances" p	resent? Yes X No
Are Vegetation, Soil X, or Hydrology naturally pre-	oblematic? (If needed	l, explain any answer	s in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	sampling point loca	tions, 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:		1		

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

	Absolute	Dominant	Indicator	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: 700 sq ft)	% Cover	Species?	Status	Number of Dominant Species
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW, or FAC
2. <u>Celtis laevigata</u>	20	Yes	FAC	(excluding FAC-): $2$ (A)
3. Ulmus crassifolia	5	No	FAC	Total Number of Dominant
4				Species Across All Strata: 2 (B)
	70	= 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	5	No	FAC	
2. Fraxinus pennsylvanica	5	No	FAC	Prevalence Index worksheet:
3.				Total % Cover of:Multiply by:
4				OBL species x 1 =
5				FACW species x 2 =
	10	- Total Car		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 Viola missouriensis	10	No	FACW	Column Totals: (A) (B)
3 Ambrosia trifida	3	No	FAC	( )
4. Elymus virginicus	2	No	FAC	Prevalence Index = B/A =
5				Hydrophytic Vegetation Indicators:
				1 - Rapid Test for Hydrophytic Vegetation
0				✓ 2 - Dominance Test is >50%
<i>1</i>				3 - Prevalence Index is ≤3.0 <sup>1</sup>
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weedy Vine Stratum (Distaire, 450 S0 ft )	20	= Total Cov	ver	<sup>1</sup> Indicators of hydric soil and wotland hydrology must
Toxicodendron radicans	5	No	FACU	be present, unless disturbed or problematic.
	5	No	FACU	
2. <u>Similar bona-nox</u>		110	1,400	Hydrophytic Vegetation
% Bare Ground in Herb Stratum <sup>80</sup>	10	= Fotal Cov	ver	Present? Yes X No
Remarks:				

Depth	Πρτιοη: (Describe Matrix	to the dept	n needed to docur Redo	nent the I	s	or contirn	n the absence (	or indicators.)
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 2/1	95	10 YR 4/6	5	С	Μ	Clay	
		_						
<sup>1</sup> Type: C=Co	oncentration. D=De	oletion. RM=	Reduced Matrix. CS	S=Covered	d or Coate	d Sand G	rains. <sup>2</sup> Loca	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	ndicators: (Appli	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators f	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		🔲 Sandy (	Gleyed Ma	atrix (S4)		🔲 1 cm M	uck (A9) ( <b>LRR I, J</b> )
Histic Ep	pipedon (A2)		Sandy F	Redox (S5	5)		Coast F	Prairie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)		Stripped	d Matrix (S	6)		🛄 Dark Su	urface (S7) (LRR G)
Hydroge	n Sulfide (A4)		Loamy	Mucky Mir	neral (F1)		High Pla	ains Depressions (F16)
	Layers (A5) (LRR	F)		Gleyed Ma	atrix (F2)			R H outside of MLRA 72 & 73)
	ICK (A9) (LKK F, G, I Below Dark Surfa	Π) Γρ (Δ11)		o iviatrix (i Dark Surfa	го) аса (F6)			a venic (F16) rent Material (TE2)
Thick Da	ark Surface (A12)			d Dark Su	irface (F7)		Verv Sh	nallow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (I	Explain in Remarks)
2.5 cm N	lucky Peat or Peat	(S2) (LRR G	<b>6, H</b> ) 🗌 High Pla	ains Depre	essions (F	16)	<sup>3</sup> Indicators of	of hydrophytic vegetation and
🔟 5 cm Mu	icky Peat or Peat (S	63) ( <b>LRR F</b> )	(ML	RA 72 & 7	73 of LRR	H)	wetland	hydrology must be present,
							unless	disturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								X
Depth (ind	ches):						Hydric Soil I	Present? Yes <u>^</u> No
Remarks:								
Redox fe	atures preser	nt <sup>.</sup> Tinn c	lav occasion	ally floc	nded is	nation	ally listed h	vdric soil: naturally dark soil
		it, 111110				nation		
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary Indic	ators (minimum of	one required	l; check all that appl	y)			Secondar	ry Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			🔲 Surfa	ace Soil Cracks (B6)
🔲 High Wa	ter Table (A2)		🔲 Aquatic In	vertebrate	s (B13)		🗹 Spar	sely Vegetated Concave Surface (B8)
Saturatio	on (A3)		🔲 Hydrogen	Sulfide Od	dor (C1)		Drair	nage Patterns (B10)
Water M	arks (B1)		Dry-Seaso	on Water T	able (C2)		U Oxidi	ized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wł	here tilled)
Drift Dep	oosits (B3)		(where	not tilled)				fish Burrows (C8)
Algal Ma	it or Crust (B4)			of Reduce	ed Iron (C4	l)	Satur	ration Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)			Surface (	C7)			norphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B7	') 🔟 Other (Exp	plain in Re	emarks)			Neutral Test (D5)
Water-S	tained Leaves (B9)						Frost	t-Heave Hummocks (D7) (LRR F)
Field Obser	vations:		. X					
Surface Wate	er Present?	res N	No <u>^</u> Depth (in	ches):		_		
Water Table	Present?	Yes N	No <u>^</u> Depth (in	ches):		_		×
Saturation P	resent?	Yes N	No X Depth (in	ches):		Wetl	and Hydrology	Present? Yes <u>^</u> No
Describe Re	corded Data (stream	n gauge, mo	nitoring well, aerial	photos, pr	evious ins	pections).	if available:	
		5 5-7	<b>3</b> ,	/ /		/;		
Remarks:								





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fann	n	Sampling Date: 5/31/2017	
Applicant/Owner: Upper Trinity Regional Water District		_ State: TX	Sampling Point: WP 709	
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range:			
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conv	ex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>	
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u> .	.46273 Lc	ng: <u>-95.91951</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 ye	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, Soil x, or Hydrology naturally pr	oblematic? (If neede	d, explain any answei	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	y sampling point loca	tions, transects	, important features, etc.	

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

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 Dominant Species
1. Fraxinus pennsylvanica	30	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	25	Yes	FAC	(excluding FAC-): $\underline{2}$ (A)
3. Celtis laevigata	15	No	FAC	Total Number of Dominant
4. Maclura pomifera	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: <u>100 %</u> (A/B)
1. Fraxinus pennsylvanica	2	No	FAC	
2. Maclura pomifera	5	No	FACU	Prevalence Index worksheet:
3.	_			Total % Cover of:Multiply by:
۵ ۸	_	<u> </u>	·	OBL species <u>10</u> x 1 = <u>10</u>
4		<u> </u>		FACW species $5$ x 2 = $10$
5	7		·	FAC species $77$ x 3 = $231$
Herb Stratum (Plot size: 450 sq ft )	/	= Total Cov	/er	FACU species $15$ x 4 = $60$
Carex crus-corvi	10	No	OBL	
Viola missouriensis	2	No	FACW	$\begin{array}{c} \text{Colump Totals:} 107 \\ \text{Colump Totals:} 107 \\$
2. <u>Ptilimpium puttallii</u>	3	No	FACW	
Amaranthus tuberculatus	5	No	FAC	Prevalence Index = $B/A = \frac{2.91}{2.91}$
4. <u>Anaraninas tabelediatas</u>	<u> </u>	110	TAO	Hydrophytic Vegetation Indicators:
5				1 - Rapid Test for Hydrophytic Vegetation
6				$\sqrt{2}$ 2 - Dominance Test is $>50\%$
7				
8				$\square$ 3 - Prevalence index is $\leq 3.0$
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	20	= Total Cov	/er	
Woody Vine Stratum (Plot size: 450 sq ft )				<sup>1</sup> 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 80%				Present? Yes <u>×</u> No
Remarks:				

	Motrix		Dod	ov Festure	c			
(inches)	Color (moist)	%	Color (moist)	<u>0x reature</u> %	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
0-18	10 YR 3/1	80 10	) YR 4/6	20	С	М	Clay	
					·	·	<u> </u>	
					·	. <u> </u>		
						. <u> </u>		
					·			
					·			
<sup>1</sup> Type: C=Co	oncentration, D=Dep	oletion, RM=Re	educed Matrix, C	S=Covere	d or Coate	ed Sand G	rains. <sup>2</sup> Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil I	Indicators: (Applic	able to all LR	Rs, unless othe	erwise not	ed.)		Indicators for	r Problematic Hydric Soils':
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)			k (A9) (LRR I, J)
Histic Ep	bipedon (A2)		Sandy	Redox (St	5)		Coast Pra	airie Redox (A16) ( <b>LRR F, G, H</b> )
	stic (A3)			d Matrix (	56) 		Dark Surf	ace (S7) (LRR G)
		<b>E</b> )			neral (F1)			H outside of ML BA 72 8 72)
		F) H)		oleyeu w ad Matrix (	anix (FZ) F3)			
	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	lucky Peat or Peat	(S2) (LRR G, H	l) 🔲 High P	lains Depr	essions (F	16)	<sup>3</sup> Indicators of	hydrophytic vegetation and
🛄 5 cm Mu	icky Peat or Peat (S	3) ( <b>LRR F</b> )	(MI	LRA 72 &	73 of LRR	<b>H</b> )	wetland h	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive L	_ayer (if present):							
Туре:			_					Y
Depth (inc	ches):		_				Hydric Soil Pr	esent? Yes <u>*</u> No
Remarks:								
Podov for	aturas promin	ont: Tinn o		nolly fl	odod i	e natior	ally listed by	drie soil poturally dark soil
Redox fea	atures promine	ent; Tinn c	lay, occasic	onally flo	ooded i	s natior	nally listed hy	dric soil, naturally dark soil
Redox fea	atures promino	ent; Tinn c	lay, occasic	onally flo	ooded i	s natior	nally listed hy	rdric soil, naturally dark soil
Redox fea	atures promino GY drology Indicators	ent; Tinn c	lay, occasio	onally flo	ooded i	s natior	nally listed hy	dric soil, naturally dark soil
Redox fea	atures promine GY drology Indicators	ent; Tinn c	lay, occasic	onally flo	ooded i	s natior	nally listed hy Secondary	rdric soil, naturally dark soil
Redox fea	atures promine GY drology Indicators cators (minimum of o Water (A1)	ent; Tinn c : one required; c	heck all that app	onally flo	oded i	s natior	nally listed hy <u>Secondary</u>	rdric soil, naturally dark soil
Redox fea	GY GY drology Indicators cators (minimum of o Water (A1) uter Table (A2)	ent; Tinn c	heck all that app	bnally flo	es (B13)	s natior	nally listed hy <u>Secondary</u> □ Surface ☑ Sparse	Indicators (minimum of two required) Soil Cracks (B6)
Redox fea HYDROLO Wetland Hyo Primary Indic Surface High Wa Saturatic	GY drology Indicators cators (minimum of o Water (A1) tter Table (A2) on (A3)	ent; Tinn c	heck all that app	nally flo	es (B13)	s natior	Secondary Secondary Surface Sparse Draina	Adric soil, naturally dark soil
Redox fea HYDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1)	ent; Tinn c	heck all that app	t (B11) Nvertebrate Sulfide O on Water	es (B13) dor (C1)	s natior	Secondary	Adric soil, naturally dark soil
Redox fea HYDROLO Wetland Hyd Primary Indic Surface High Wa Saturatic Water M Sedimer	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) at Deposits (B2)	ent; Tinn c	heck all that app	t (B11) nvertebrate Sulfide O on Water	es (B13) dor (C1) Fable (C2)	s nation	Secondary	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) Ily Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled)
Redox fea	GY drology Indicators cators (minimum of of Water (A1) atter Table (A2) on (A3) larks (B1) att Deposits (B2) posits (B3)	ent; Tinn c	heck all that app	t (B11) wertebrate Sulfide O on Water	es (B13) dor (C1) Fable (C2) eres on Liv	s natior	Secondary Surface Source Source Source Contemporation Source Sour	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8)
Redox fea	<b>GY</b> <b>drology Indicators</b> <u>cators (minimum of c</u> Water (A1) ter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) et or Crust (B4)	ent; Tinn c	heck all that app Salt Cruss Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence	t (B11) Nvertebrate a Sulfide O on Water Rhizosphe not tilled)	es (B13) dor (C1) Fable (C2) eres on Liv	s nation	Secondary Surface Sparse Condition Surface Sparse Condition Sparse Condition Sparse Condition Sparse Condition Sparse Spa	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) inn Visible on Aerial Imagery (C9)
Redox fea	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5)	ent; Tinn c	heck all that app Salt Cruss Aquatic Ir Aquatic Ir Dry-Seas Oxidized (where Presence Thin Muc	t (B11) nvertebrate sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> of Reduce	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4	s nation	CC3)	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) probic Position (D2)
Redox fea	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial	ent; Tinn c	heck all that app Salt Cruss Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence Thin Mucl Other (Fx	http://www.commonselies.commons	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks)	s natior	Secondary Surface Source Control Source Control Source Sou	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5)
Redox fea	atures promine GY drology Indicators cators (minimum of of Water (A1) ther Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9)	ent; Tinn c	heck all that app	nally fle	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks)	s natior	Secondary Surface Surface Sparse Drainae Cxidize (C3) (whe Saturae Geomo FAC-N	Adric soil, naturally dark soil Indicators (minimum of two required) a Soil Cracks (B6) Ily Vegetated Concave Surface (B8) ge Patterns (B10) ad Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) leave Hummocks (D7) (LRR F)
Redox fea	atures promine GY drology Indicators ators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9) vations:	ent; Tinn c	heck all that app	t (B11) nvertebrate a Sulfide O on Water Rhizosphe not tilled) of Reduce k Surface plain in Re	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks)	s nation	Secondary Surface Sparse Drainae CXidize (C3) (whe Saturae Geomo FAC-N Frost-F	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F)
Redox fea	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present?	ent; Tinn c	heck all that app Salt Crus Aquatic Ir Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence Thin Mucl Other (Ex	t (B11) nvertebrate o Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface cplain in Re	es (B13) dor (C1) Table (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	s nation	C3)	Adric soil, naturally dark soil Indicators (minimum of two required) a Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ad Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F)
Redox fea	GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) darks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present?	ent; Tinn c	heck all that app Salt Cruss Aquatic Ir Hydrogen Dry-Seas Oxidized (where Presence Thin Muck Other (Ex Depth (ir x Depth (ir	t (B11) nvertebrate sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> of Reduce k Surface cplain in Re-	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	ing Roots	C3)	Adric soil, naturally dark soil Indicators (minimum of two required) a Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ad Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F)
Redox fea	atures promine GY drology Indicators: ators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present?	Imagery (B7)	heck all that app	nally fle	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	s nation	Anally listed hy  Secondary  Surface  Sparse  Drainae  Crayfis  Crayfis  Saturae  FAC-N  Frost-H	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) leave Hummocks (D7) (LRR F)
Redox fea	atures promine GY drology Indicators ators (minimum of o Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? pillary fringe)	ent; Tinn c cone required; c Imagery (B7) (es <u>X</u> No (es <u>X</u> No (es <u>X</u> No (es <u>X</u> No	lay, occasion	nally fle	es (B13) dor (C1) Fable (C2) ores on Liv ed Iron (C4 (C7) emarks) inches	s nation	Anally listed hy  Secondary  Surface  Sparse  Sparse  Crayfis  Saturat  Geomo  FAC-N  Frost-F  Saturat  Anad Hydrology P	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) leave Hummocks (D7) (LRR F) resent? Yes <u>x</u> No
Redox fea	atures promine GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) posits (B3) at or Crust (B4) posits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? pillary fringe) corded Data (stream	ent; Tinn c	lay, occasion	nally fle	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	s nation	Anally listed hy  Secondary  Surface  Sparse  Drainage  (C3)  (whe  Geome FAC-N  Frost-H  and Hydrology P  if available:	Adric soil, naturally dark soil Indicators (minimum of two required) a Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ad Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F)
Redox fea	atures promine GY drology Indicators cators (minimum of of Water (A1) tter Table (A2) on (A3) larks (B1) nt Deposits (B2) oosits (B3) at or Crust (B4) oosits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Present? Solution of the second present? Solution of the second present of	ent; Tinn c : one required; c one required; c (es <u>X</u> No (es <u>X</u> No (es <u>X</u> No (es <u>X</u> No (es <u>X</u> No	lay, occasion	nally fle	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	s nation	Anally listed hy  Secondary  Syarse  Sourdare  Syarse  Drainae  Oxidize  (C3)  (whe  Crayfis  Saturai  Geomo FAC-N  Frost-H  Iand Hydrology P  if available:	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) deave Hummocks (D7) (LRR F) resent? Yes X No
Redox fea	atures promine GY drology Indicators: ators (minimum of of Water (A1) ater Table (A2) on (A3) larks (B1) at Deposits (B2) bosits (B3) at or Crust (B4) bosits (B5) on Visible on Aerial tained Leaves (B9) vations: er Present? Present? Present? billary fringe) corded Data (stream	ent; Tinn c	heck all that app         Aquatic Ir         Aquatic Ir         Hydrogen         Dry-Seas         Oxidized         (where         Presence         Thin Mucl         Other (Ex         Depth (ir         x       Depth (ir         Depth (ir         Depth (ir	ht (B11) hvertebrate a Sulfide O on Water <sup>-</sup> Rhizosphe <b>not tilled</b> ) of Reduce k Surface plain in Re- nches): <u></u> photos, pr	es (B13) dor (C1) Fable (C2) eres on Liv ed Iron (C4 (C7) emarks) inches	s nation	Anally listed hy  Secondary  Surface  Sparse  Sparse  Drainae  Oxidize  (C3)  (whe  Geomo FAC-N Frost-F  land Hydrology P  if available:	Adric soil, naturally dark soil Indicators (minimum of two required) e Soil Cracks (B6) ly Vegetated Concave Surface (B8) ge Patterns (B10) ed Rhizospheres on Living Roots (C3) re tilled) h Burrows (C8) tion Visible on Aerial Imagery (C9) orphic Position (D2) eutral Test (D5) Heave Hummocks (D7) (LRR F) resent? Yes <u>x</u> No





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fann	in	_ Sampling Date: <u>5/31/2017</u>	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 801	
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	.4627 Lo	ong: <u>-95.92014</u>	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifie	cation: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time of y	ear? Yes X No	(If no, explain in F	Remarks.)	
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are "Nor	mal Circumstances"	present? Yes X No	
Are Vegetation, Soil x, or Hydrology naturally pr	oblematic? (If neede	d, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	g sampling point loca	ations, transects	s, important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u> Yes <u>x</u>	No No No	Is the Sampled Area within a Wetland?	Yes <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:
<u>Tree Stratum</u> (Plot size: <u>700 sq ft</u> )	<u>% Cover</u>	Species?	<u>Status</u>	Number of Dominant Species
1. Ulmus crassifolia	60	Yes	FAC	That Are OBL, FACW, or FAC
2. Fraxinus pennsylvanica	5	No	FAC	$(\text{excluding FAC-}): \underline{2} \qquad (A)$
3. Maclura pomifera	5	No	FACU	Total Number of Dominant
4. Celtis laevigata	2	No	FAC	Species Across All Strata: 2 (B)
<i>(</i> -	72	= 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. Fraxinus pennsylvanica	2	No	FAC	
2. Ulmus crassifolia	2	No	FAC	Prevalence Index worksheet:
3. Gleditsia triacanthos	2	No	FAC	Total % Cover of: Multiply by:
4. Maclura pomifera	2	No	FACU	OBL species $\frac{70}{x \ 1} = \frac{70}{x}$
5				FACW species $10$ x 2 = $20$
	8	- Total Cov	or	FAC species $78$ x 3 = $234$
Herb Stratum (Plot size: 450 sq ft )		- 10(0100)	CI	FACU species $9$ $x 4 = 36$
1. Carex crus-corvi	70	Yes	OBL	UPL species x 5 =
2. Ptilimnium nuttalli	10	No	FACW	Column Totals: <u>167</u> (A) <u>360</u> (B)
3. Amaranthus tuberculatus	5	No	FAC	
4.				Prevalence Index = $B/A = \frac{2.16}{2.16}$
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
				2 - Dominance Test is >50%
ı				$\boxed{\checkmark}$ 3 - Prevalence Index is ≤3.0 <sup>1</sup>
8			·	4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10	05		<u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weady Vine Stratum (Plat aize: 450 S0 ft )	60	= Total Cov	er	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Campsis radicans	2	No	FACU	be present, unless disturbed or problematic.
2				Hydrophytic Vegetation
% Bare Ground in Herb Stratum 15	2	= Fotal Cov	er	Present? Yes X No
Tomano.				

SOIL

Depth	Matrix		Redo	x Feature	S .	-		
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>		Texture	Remarks
0-18	10 YR 3/1	98	10 YR 4/6	2	С	Μ	Clay	
					·			
						. <u> </u>		
					·			
					·			
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM	Reduced Matrix, CS	S=Covere	d or Coat	ed Sand G	Grains. <sup>2</sup> Location	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise not	ed.)		Indicators for	Problematic Hydric Soils':
Histoso	l (A1)		Sandy (	Gleyed Ma	atrix (S4)		1 cm Muck	(A9) ( <b>LRR I, J</b> )
	pipedon (A2)		Sandy F	Redox (S5	5)		Coast Prai	rie Redox (A16) ( <b>LRR F, G, H</b> )
	ISTIC (A3)			d Matrix (S	56) aarol (E1)		Dark Surfa	ce (S7) (LRR G)
	d Lavors (A5) (I PP	E)		Cloved M	neral (F1) atrix (E2)			outside of MLPA 72 8 73)
		г <i>)</i> Н)		d Matrix (	E3)			Vertic (F18)
	d Below Dark Surfa	ce (A11)	Redox [	Dark Surfa	ace (F6)			t Material (TF2)
Thick D	ark Surface (A12)		Deplete	d Dark Su	urface (F7	·)	Very Shallo	ow Dark Surface (TF12)
🔲 Sandy M	Mucky Mineral (S1)		Redox [	Depressio	ns (F8)	,	Other (Exp	lain in Remarks)
2.5 cm	Mucky Peat or Peat	(S2) (LRR	G, H) 🗌 High Pla	ains Depre	essions (F	-16)	<sup>3</sup> Indicators of h	ydrophytic vegetation and
5 cm M	ucky Peat or Peat (	S3) (LRR F)	(ML	RA 72 & 1	73 of LRI	R H)	wetland hyd	drology must be present,
							unless dist	urbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	iches):						Hydric Soil Pres	sent? Yes <sup>X</sup> No
Remarks:							1	
Redox fe	atures observ	ed; Tinn	clay, occasior	hally flo	oded i	s natior	nally listed hyd	dric soil; naturally dark soil
HYDROLO	OGY							
Wetland Hy	drology Indicators	5:						
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			Secondary Ir	ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surface	Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic In	vertebrate	es (B13)		Sparsely	Vegetated Concave Surface (B8)
Saturati	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainage	e Patterns (B10)
Water N	/larks (B1)		Dry-Seaso	on Water 1	Table (C2	)		Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ving Roots	(C3) (where	e tilled)
Drift De	posits (B3)		(where I	not tilled)		-	Crayfish	Burrows (C8)
Algal M	at or Crust (B4)		Presence	of Reduce	ed Iron (C	4)	Saturatio	on Visible on Aerial Imagery (C9)
	posits (B5)		Thin Muck	Surface (	(C7)		Geomor	phic Position (D2)
Inundat	ion Visible on Aeria	Imagery (B	7) 🔲 Other (Exp	plain in Re	emarks)		FAC-Ne	utral Test (D5)
Water-S	Stained Leaves (B9)	0 , (	, <u> </u>		,		Erost-He	eave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	ter Present?	Yes	No X Depth (in	ches):				
Water Table	Present?	Yes	No <sup>X</sup> Depth (in	ches).		_		
Saturation E	Procont?	Voc	No X Dopth (in	choc):		Wot	land Hydrology Pr	esent? Ves X No
(includes ca	pillary fringe)	103		ches)			land Hydrology i h	
Describe Re	ecorded Data (stream	m gauge, me	onitoring well, aerial	photos, pr	evious in	spections)	, if available:	
Remarks:								
denressi	onal area as	sociated	with former o	hanne	Iscar			



Project/Site: Lake Ralph Hall Supplemental JD	City/County: L	adonia/Fannin Sa	Sampling Date: 5/31/2017	
Applicant/Owner: Upper Trinity Regional Water District		State: TX Sat	mpling Point: WP 857	
Investigator(s): <u>Jason Voight</u> , Andrew Sample	Section, Towr	ship, Range:		
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	Slope (%): 0-1%	
Subregion (LRR): Southwest Prairies	t: <u>33.46282</u>	Long: <u>-95.92099</u>	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classificatio	n: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time	of year? Yes X	No (If no, explain in Rema	arks.)	
Are Vegetation, Soil, or Hydrology signific	cantly disturbed?	Are "Normal Circumstances" prese	ent? Yes X No	
Are Vegetation, Soil X, or Hydrology natura	lly problematic?	(If needed, explain any answers in	Remarks.)	
SUMMARY OF FINDINGS – Attach site map show	wing sampling	point locations, transects, in	nportant features, etc.	
Hydrophytic Vegetation Present? Ves X No				

Hydrophytic Vegetation Present? Hydric Soil Present?	Yes <u>x</u> Yes <u>x</u>	No No	Is the Sampled Area within a Wetland?	Yes X	No
Wetland Hydrology Present?	Yes <u>*</u>	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	50	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	10	No	FAC	(excluding FAC-): (A)
3. Celtis laevigata	10	No	FAC	Total Number of Dominant
4. Maclura pomifera	5	No	FACU	Species Across All Strata: (B)
	75	= 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	Drevelence Index werkeheet:
2				Prevalence index worksneet:
3				Iotal % Cover of:Multiply by:
4				OBL species $\frac{5}{2}$ $x = \frac{5}{2}$
5.				FACW species $0$ $x 2 = 0$
	5	= Total Cov	er	FAC species $\frac{75}{x 3} = \frac{225}{x 3}$
Herb Stratum (Plot size: 450 sq ft )			0.	FACU species $\frac{7}{x 4} = \frac{28}{x}$
1. Carex crus-corvi	5	No	OBL	UPL species $0$ $x 5 = 0$
2.				Column Totals: <u>87</u> (A) <u>258</u> (B)
3.				0.07
4.				Prevalence Index = $B/A = \frac{2.97}{2.97}$
5.				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				✓ 2 - Dominance Test is >50%
7				$\boxed{\checkmark}$ 3 - Prevalence Index is $\leq 3.0^1$
o				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Woody Vine Stratum (Plot size: 450 sq ft )	5	= Total Cov	rer	<sup>1</sup> Indicators of hydric soil and wetland hydrology must
Campsis radicans	2	No	FACU	be present, unless disturbed or problematic.
1. <u></u>				
2	2			Hydropnytic Vegetation
% Bare Ground in Herb Stratum <sup>95</sup>	~	= 1 otal Cov	er	Present? Yes X No
Remarks:				

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

Depth	Matrix	<u></u>		dox Feature	S - 1	. 2	<b>-</b>	
(inches)	Color (moist)	%	Color (moist)	%	lype'		<u> </u>	Remarks
0-18	10 YR 3/1	90	10 YR 4/6	10	С	Μ	Clay	
							·	
							·	
·							·	
							<u></u>	
							<u> </u>	
							·	
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RI	M=Reduced Matrix,	CS=Covere	d or Coat	ed Sand G	Grains. <sup>2</sup> Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to a	II LRRs, unless ot	nerwise no	ted.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sand	y Gleyed M	atrix (S4)		🔲 1 cm N	/luck (A9) ( <b>LRR I, J</b> )
Histic Ep	pipedon (A2)		Sand	y Redox (S	5)		Coast	Prairie Redox (A16) (LRR F, G, H)
Black Hi	istic (A3)		🛄 Stripp	oed Matrix (	S6)		🔲 Dark S	Surface (S7) (LRR G)
🔲 🛄 Hydroge	en Sulfide (A4)		🛄 Loam	iy Mucky Mi	neral (F1	)	🔲 High P	lains Depressions (F16)
Stratified	d Layers (A5) ( <b>LRR</b>	F)	🛄 Loam	y Gleyed M	latrix (F2)		(LR	R H outside of MLRA 72 & 73)
🔲 1 cm Mւ	uck (A9) (LRR F, G	<b>H</b> )	Deple	eted Matrix	(F3)		Reduc	ed Vertic (F18)
Deplete	d Below Dark Surfa	ce (A11)	🗹 Redo	x Dark Surf	ace (F6)		🔲 Red Pa	arent Material (TF2)
Thick Da	ark Surface (A12)		Deple	eted Dark S	urface (F	7)	🔲 Very S	hallow Dark Surface (TF12)
Sandy N	/lucky Mineral (S1)		🗹 Redo	x Depressio	ons (F8)		🔲 Other (	(Explain in Remarks)
🔲 2.5 cm I	Mucky Peat or Peat	(S2) (LRR	<b>K G, H</b> ) 🛄 High	Plains Depr	essions (	F16)	<sup>3</sup> Indicators	of hydrophytic vegetation and
🔲 5 cm Μι	ucky Peat or Peat (	53) ( <b>LRR F</b>	F) (I	/ILRA 72 &	73 of LR	<b>R H</b> )	wetland	d hydrology must be present,
							unless	disturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	chec).						Hydric Soil	Present? Ves <sup>X</sup> No
	cnes).						Tryune Son	
Remarks:								
Redox fe	atures observ	red; Tin	n clay, occasi	onally flo	boded	is natior	nally listed	hydric soil; naturally dark soil
HYDROLO	GY							
Wetland Hv	drology Indicators	;						
Primary India	cators (minimum of	one requir	ed: check all that a	(vlac			Seconda	any Indicators (minimum of two required)
		Une requir						
	Water (A1)			ist (B11)				ace Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic	Invertebrate	es (B13)		Spa Spa	rsely Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydroge	en Sulfide C	dor (C1)		Drai Drai	nage Patterns (B10)
Water N	larks (B1)		Dry-Sea	son Water	Table (C2	2)		dized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		U Oxidize	d Rhizosphe	eres on Li	ving Roots	(C3) (w	vhere tilled)
Drift Dep	posits (B3)		(wher	e not tilled	)		Cray	yfish Burrows (C8)
Algal Ma	at or Crust (B4)		Presend	e of Reduc	ed Iron (C	(4)	🗆 Satu	uration Visible on Aerial Imagery (C9)
	posits (B5)		Thin Mu	ick Surface	(C7)	,	Geo Geo	morphic Position (D2)
	on Visible on Aerial	Imagony (		Explain in P	(C) /			Neutral Tast (D5)
		inagery (			emarks)			
	damed Leaves (B9)							GI-HEAVE HUMMOCKS (D7) (LRR F)
Field Obser	vations:			2				
Surface Wat	er Present?	Yes X	No Depth	(inches): Z				
Water Table	Present?	Yes	No x Depth	(inches):				
Saturation P	resent?	Yes X	No Depth	(inches):		Wet	land Hydrolog	v Present? Yes <sup>X</sup> No
(includes cap	oillary fringe)			( /			, .	, <u> </u>
Describe Re	corded Data (stream	n gauge, r	nonitoring well, aeri	al photos, p	revious in	spections)	, if available:	
Remarks:								
doproce	anal area as	opiete	d with former	ahanna	Locar			



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 1146
Investigator(s):	_ Section, Towr	ship, Range:	
Landform (hillslope, terrace, etc.): Valley	Local relief (c	oncave, convex, none): <u>Concave</u>	Slope (%): <u>0-1%</u>
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u>	3.4625	Long: <u>-95.92113</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 y	rear? Yes X	No (If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed?	Are "Normal Circumstances" p	resent? Yes X No
Are Vegetation, Soil X, or Hydrology naturally p	roblematic?	(If needed, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling	point locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u> Yes <u>x</u>	No No No	Is the Sampled Area within a Wetland?	Yes X	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	60	Yes	FAC	That Are OBL, FACW, or FAC
2. Maclura pomifera	10	No	FACU	(excluding FAC-): $\underline{2}$ (A)
3. <u>U</u> lmus crassifolia	15	No	FAC	Total Number of Dominant
4. Celtis laevigata	5	No	FAC	Species Across All Strata: 2 (B)
	90	= 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. Fraxinus pennsylvanica	5	No	FAC	
2. Celtis laevigata	2	No	FAC	Prevalence Index worksheet:
3	_			Total % Cover of: Multiply by:
۵ ۸				OBL species $25$ $x = 25$
4				FACW species $2   x 2 = 4$
5				FAC species $92$ x 3 = $276$
Horb Stratum (Plot cizo: 450 sq ft )		= Total Cov	/er	FACIL species $12$ $x 4 = 48$
	10	No	OBI	$\frac{1}{100} \text{ species } \frac{0}{100} \text{ species } \frac{1}{100}  species$
- Amaraphus tuborgulatus		No	EAC	$\begin{array}{c} \text{OFL Species} & \underline{1} \\ \text{Orbusy Table 131} \\ \text{Orbusy Table 131} \\ \end{array} $
2. Aliarantinus tuberculatus				Column Lotais: $(A) = (B)$
3. Chasmanthium latirolium		INO	FACU	Prevalence index $= B/A = 2.69$
4. Viola missouriensis	2	No	FACW	Hydrophytic Vegetation Indicators
5. Lemna minor	15	Yes	OBL	
6				
7.				2 - Dominance Test is >50%
8				$\checkmark$ 3 - Prevalence Index is $\leq 3.0^1$
9.				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
10				Deable wet'r Hudres to Manate tio
····	34	- Total Cov	/or	
Woody Vine Stratum (Plot size: 450 sq ft )		- 10tal C0		<sup>1</sup> Indicators of hydric soil and wetland hydrology must
1.				be present, unless disturbed or problematic.
2				Hydrophytic
۲	0	- Total Ca		Vegetation
% Bare Ground in Herb Stratum 66%		- 101a100		Present? Yes X No
Remarks:				1

Depth	Matrix	~ ~ ~	Redo	x Feature	S - 1	. 2	- <sub>-</sub> ,	
(inches)		%		<u>%</u>				Remarks
0-18	10 YR 3/1	80	10 YR 4/6	20	C	IVI	Clay	
					·			
·								
							_	
			-					
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM	=Reduced Matrix, CS	S=Covere	d or Coat	ed Sand (	Grains. <sup>2</sup> Loc	ation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	rwise not	ed.)		Indicators	for Problematic Hydric Soils <sup>3</sup> :
Histosol	(A1)		Sandy 🤇	Gleyed Ma	atrix (S4)		🔲 1 cm M	luck (A9) ( <b>LRR I, J</b> )
Histic E	pipedon (A2)		Sandy F	Redox (S5	5)		Coast I	Prairie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3)		Stripped	d Matrix (S	S6)		🔲 Dark S	urface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1	)	🔲 High Pl	lains Depressions (F16)
Stratifie	d Layers (A5) ( <b>LRR</b>	F)	Loamy	Gleyed M	atrix (F2)		(LR	R H outside of MLRA 72 & 73)
📙 1 cm Mւ	uck (A9) (LRR F, G	, <b>H</b> )	Deplete	d Matrix (	F3)		Reduce	ed Vertic (F18)
Deplete	d Below Dark Surfa	ce (A11)	Redox I	Dark Surfa	ace (F6)		Red Pa	arent Material (TF2)
Thick Da	ark Surface (A12)			d Dark Su	urface (F	7)	Very SI	hallow Dark Surface (TF12)
Sandy N	Aucky Mineral (S1)		Redox I	Depressio	ons (F8)		Uther (	Explain in Remarks)
	Mucky Peat or Peat	(S2) (LRR	G, H) L High Pla	ains Depr	essions (	F16)	Indicators	of hydrophytic vegetation and
<u>5</u> 5 cm Mu	icky Peat or Peat (	53) (LRR F)	(ML	RA 72 &	73 of LR	R H)	wetland	hydrology must be present,
Destrictive							uniess	disturbed or problematic.
Restrictive	Layer (if present):							
Type:								Y
Depth (in	ches):						Hydric Soil	Present? Yes <u>^</u> No
Remarks:								
Redox fe	atures observ	ed; Tinn	clay, occasion	hally flo	boded	is natio	nally listed l	hydric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators	5:						
Primary Indi	cators (minimum of	one require	d; check 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	es (B13)		🗹 Spar	selv Vegetated Concave Surface (B8)
Saturati	on (A3)			Sulfide O	dor (C1)		Draii	nage Patterns (B10)
✓ Water M	larks (B1)		Dry-Seaso	on Water	Table (C2	2)		lized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe	eres on Li	vina Roots	s (C3) (w	here tilled)
	(B3)		(where	not tilled)		ving root		fish Burrows (C8)
	at or Crust (B4)			of Reduce	, ad Iron (C	·4)		ration Visible on Aerial Imagery (C9)
	ocite (B5)			Surface	(C7)	(,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		marchic Position (D2)
	on Visible on Asriel	Imagan/ (P			(C7)			Noutrol Tost (DE)
		inagery (D			eniarks)			t Hoove Hummooke (DZ) ( <b>I BB E</b> )
	vatiene							t-neave nullinocks (D7) (LKK F)
Field Obser	vations:	. Y		2	inches			
Surface Wat	er Present?	Yes <u>^</u>	No Depth (in	ches): <u>~</u>				
Water Table	Present?	Yes	No x Depth (in	ches):				
Saturation P	resent?	Yes x	No Depth (in	ches):		We	tland Hydrology	/ Present? Yes X No
(Includes ca	oillary fringe)		pritoring well perial	nhotos n	rovious in	spections	) if available:	
Desende ive		n gauye, m	sintoning well, aerial	μιστος, μι		5000015		
<u> </u>								
Remarks:	_			_	_			
depressi	onal area as	sociated	with former c	hanne	l scar			





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fann	n	_ Sampling Date: <u>5/31/2017</u>	
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: <u>WP 1334</u>	
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Range:			
Landform (hillslope, terrace, etc.): Valley	Local relief (concave, conv	ex, none): <u>Concave</u>	Slope (%): 0-1%	
Subregion (LRR): <u>Southwest Prairies</u> Lat: <u>33</u> .	4619 Lc	ng: <u>-95.92107</u>	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded		NWI classifica	tion: PFO1A	
Are climatic / hydrologic conditions on the site typical for this time of ye	ear? Yes X No	(If no, explain in Re	marks.)	
Are Vegetation, Soil, or Hydrology significantly	disturbed? Are "Nor	nal Circumstances" pr	esent? Yes X No	
Are Vegetation, Soil X, or Hydrology naturally pro	oblematic? (If neede	d, explain any answers	s in Remarks.)	
SUMMARY OF FINDINGS – Attach site map showing	sampling point loca	tions, transects,	important features, etc.	

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u> Yes <u>x</u>	No No No	Is the Sampled Area within a Wetland?	Yes <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:
<u>Tree Stratum</u> (Plot size: 700 sq ft )	<u>% Cover</u>	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-): (A)
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Dominant
4. Maclura pomifera	5	No	FACU	Species Across All Strata: <u>3</u> (B)
	80	= 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	10	No	FAC	
2. Fraxinus pennsylvanica	10	No	FAC	Prevalence Index worksheet:
3. Ulmus crassifolia	10	No	FAC	Total % Cover of: Multiply by:
4.				OBL species $\frac{15}{15}$ x 1 = $\frac{15}{15}$
5	_			FACW species $2$ x 2 = $4$
···	30	- Total Cov	/er	FAC species $110$ x 3 = $330$
Herb Stratum (Plot size: 450 sq ft )		- 10101 001		FACU species $5$ x 4 = $20$
1. Carex crus-corvi	15	No	OBL	UPL species $0$ x 5 = $0$
2. Amaranthus tuberculatus	5	No	FAC	Column Totals: <u>132</u> (A) <u>369</u> (B)
3. Viola missouriensis	2	No	FACW	
4.				Prevalence Index = $B/A = \frac{2.8}{2.8}$
5				Hydrophytic Vegetation Indicators:
6	_			1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
<i>1</i>				3 - Prevalence Index is ≤3.0 <sup>1</sup>
8				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weady Vine Stratum (Plat size, 450 St ft )	22	= Total Cov	ver	<sup>1</sup> Indicators of hydric soil and wotland hydrology must
				be present, unless disturbed or problematic.
1				
2				Hydrophytic
% Pore Cround in Harb Stratum 78	U	= Total Cov	ver	Present? Yes <sup>X</sup> No

Depth	Matrix	0/	Redo	<u>x Feature</u>	S T 1	1 2	- -	
(incnes)		%		<u>%</u>				Kemarks
0-18	10 YR 3/1	85	10 YR 4/6	15	C	M	Clay	
					·			
				_		-		
					·			
	an approximation D Da	nlation DM	Deduced Metrix C	- <u> </u>			2 2 0 0	
	Indicatora, (Appli	pielion, Rivi				eu Sanu G	Indicators	for Problematic Hydric Soils <sup>3</sup> :
	indicators: (Appli	cable to all		rwise not	ea.)			for Problematic Hydric Solls :
	(A1)		Sandy G	Gleyed Ma	atrix (S4)			luck (A9) ( <b>LRR I, J</b> )
	pipedon (A2)		Sandy I	Redox (S5	5)			Prairie Redox (A16) (LRR F, G, H)
Black H	istic (A3)			d Matrix (S	56)		Dark S	Surface (S7) (LRR G)
Hydroge	en Sulfide (A4)			Mucky Mi	neral (F1	)	High P	lains Depressions (F16)
	d Layers (A5) (LRR	F)		Gleyed M	atrix (F2)			R H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,	H)		ed Matrix (	F3)			ed Vertic (F18)
	d Below Dark Surfa	ce (A11)		Dark Surfa	ace (F6)	_,		arent Material (1F2)
	ark Surface (A12)			ed Dark Su	urface (F	()		hallow Dark Surface (TF12)
Sandy N	Aucky Mineral (S1)			Depressio	ns (F8)		Other (	(Explain in Remarks)
	Nucky Peat or Peat	(S2) (LRR	G, H) L High Pl	ains Depr	essions (	F16)	Indicators	of hydrophytic vegetation and
<u> </u>	ucky Peat or Peat (S	63) ( <b>LRR F</b> )	(ML	.RA 72 &	73 of LR	R H)	wetland	d hydrology must be present,
							unless	disturbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	ches):						Hydric Soil	Present? Yes X No
Remarks:							<b>I</b>	
Redox fe	atures observ	ed. Tinr	, clay, occasio	hally flo	hahod	is natio	nally listed	hydric soil: naturally dark soil
I COUNTO		cu, mi	1 0ldy, 000d3101	iany ne	Joucu		nany noted	riyano son, natarany dant son
	GY							
Wetland Hy	drology Indicators							
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			Seconda	ary Indicators (minimum of two required)
✓ Surface	Water (A1)		Salt Crust	(B11)			🛄 Surf	ace Soil Cracks (B6)
🔲 High Wa	ater Table (A2)		Aquatic In	vertebrate	es (B13)		🗹 Spa	rsely Vegetated Concave Surface (B8)
Saturati	on (A3)			Sulfide O	dor (C1)		Drai	nage Patterns (B10)
Vater M	larks (B1)		Dry-Seaso	on Water T	rable (C2	e)		lized Rhizospheres on Living Roots (C3)
	nt Deposite (B2)			Phizosophe		., vina Roots	(C3) (W	
						ving roote		fish Burrows (CP)
	at or Crust (B4)			of Reduce	ed Iron (C	;4)		iration Visible on Aerial Imagery (C9)
	posits (B5)			Surface	(C7)			morphic Position (D2)
Inundati	on Visible on Aerial	Imagery (B	57) L Other (Ex	plain 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	er Present?	Yes X	No Depth (in	ches): 2	inches			
Water Table	Present?	Yes	No X Depth (in	ches).				
		Y X	No Dopth (in	oh e e):				v Brassent2 Vas X No
Saturation P	resent? nillary fringe)	res <u>~</u>	No Depth (In	cnes):			tiand Hydrology	y Present? Tes No
Describe Re	corded Data (stream	n gauge, m	onitoring well, aerial	photos, pr	evious in	spections)	, if available:	
		5 5-,	J ,	,			-	
Bomerica								
Remarks:					_			
depressi	onal area ass	sociated	I with former c	hanne	l scar			



Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/F	annin	Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 1409
Investigator(s): Jason Voight, Andrew Sample	Section, Township, Ra	nge:	
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: <u>33</u>	.46231	Long: <u>-95.91948</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 y	ear? Yes X No _	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are '	'Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil x, or Hydrology naturally pr	oblematic? (If ne	eded, explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS – Attach site map showing	g sampling point I	ocations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes <u>x</u> Yes <u>x</u>	No No	Is the Sampled Area within a Wetland?	Yes X	No
Remarks:	163				

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	45	Yes	FAC	That Are OBL, FACW, or FAC
2. Ulmus crassifolia	40	Yes	FAC	(excluding FAC-): $3$ (A)
3				Total Number of Dominant
4.				Species Across All Strata: <u>3</u> (B)
	85	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )				That Are OBL, FACW, or FAC: <sup>100%</sup> (A/B)
1. Fraxinus pennsylvanica	5	No	FAC	
2. Ulmus crassifolia	5	No	FAC	Prevalence Index worksheet:
3.				Total % Cover of: Multiply by:
A				OBL species x 1 =
5				FACW species x 2 =
J	10	Tatal Car		FAC species x 3 =
Herb Stratum (Plot size: 450 sq ft )		= 10(a) COV	er	FACU species x 4 =
1 Carex crus-corvi	65	Yes	OBL	UPL species x 5 =
2 Amaranthus tuberculatus	5	No	FAC	Column Totals: (A) (B)
2. Viola missouriensis	2	No	FACW	
Ptilimnium nuttallii	5	No	FACW	Prevalence Index = B/A =
4. <u></u>		110	17.017	Hydrophytic Vegetation Indicators:
5		<u> </u>		1 - Rapid Test for Hydrophytic Vegetation
6				2 - Dominance Test is >50%
7				$3$ - Prevalence Index is $\leq 3.0^{1}$
8				1 = 0 $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$ $1$
9				data in Remarks or on a separate sheet)
10				Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
	77	= Total Cov	/er	
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
	0	= Total Cov	/er	Vegetation
% Bare Ground in Herb Stratum 23				Present ? Yes No
Remarks:				

SOIL
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Profile Des	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confirm	n the absence of in	ndicators.)		
Depth	Matrix		Redo	x Feature	es					
(inches)	Color (moist)	%	Color (moist)	%	Type	Loc <sup>2</sup>	Texture	Remarks		
0-4	10 YR 3/1	100								
4-18	10 YR 3/1	95	10 YR 4/6							
							<u> </u>			
							. <u> </u>			
							. <u> </u>			
<sup>1</sup> Type: C-C	Concontration D-Do	olotion PM	-Roducod Matrix, CS			ad Sand G		n: PL-Poro Lining M-Matrix		
Hydric Soil	Indicators: (Appli	cable to all	LRRs. unless other	rwise no	ted.)	su Sanu G	Indicators for	Problematic Hydric Soils <sup>3</sup> :		
	(A1)		Sandy (	Gleved M	atrix (S4)					
Histic E	pipedon (A2)		Sandy F	Redox (S	5)		Coast Prai	rie Redox (A16) ( <b>LRR F. G. H</b> )		
Black H	listic (A3)			d Matrix (	S6)		Dark Surfa	ce (S7) (LRR G)		
Hydrog	en Sulfide (A4)		Loamy I	Mucky M	ineral (F1)		High Plains	s Depressions (F16)		
Stratifie	d Layers (A5) (LRR	F)	Loamy	Gleyed N	latrix (F2)		(LRR H	outside of MLRA 72 & 73)		
🛄 1 cm M	uck (A9) (LRR F, G,	H)	Deplete	d Matrix	(F3)		Reduced V	/ertic (F18)		
	ed Below Dark Surface	ce (A11)	Redox I	Dark Surf	ace (F6)		Red Paren	t Material (TF2)		
	ark Surface (A12)			d Dark S	urface (F7	)	Very Shallo	ow Dark Surface (TF12)		
Sandy I	Mucky Mineral (S1)			Depressio	ons (F8)		Other (Exp	lain in Remarks)		
2.5 cm	Mucky Peat or Peat	(52) (LRR 22) (LBB E)	G, H) <u></u> High Pla	ains Depi	72 of L BE	·16) • <b>ப</b> \	Indicators of h	drology must be present		
	ucky real of real (3	55) ( <b>LKK F</b> )		.ΚΑ / 2 α	13 01 LKP	(П)		urbed or problematic		
Restrictive	Laver (if present):									
Type:										
Depth (ir	iches).						Hydric Soil Pre	sent? Yes X No		
Romarks:	ioneo).									
Redox fe	atures observ	od: Tinn	clay occasion	ally fl	ooded i	e natior	ally listed by	dric soil: naturally dark soil		
INCOUNTE		eu, min		iany in	Joueu	5 1121101	any instea myc			
HYDROLC	OGY									
Wetland Hy	drology Indicators	:								
Primary Ind	icators (minimum of	one require	d; check all that appl	y)			Secondary Ir	ndicators (minimum of two required)		
	Water (A1)		Salt Crust	(B11)				Soil Cracks (B6)		
High W	ater Table (A2)			vertebrat	es (B13)			Vegetated Concave Surface (B8)		
Aquatic Invertebrates (B13)     Aquatic Invertebrates (B13)     Aquatic Invertebrates (B13)     Hydrogen Sulfide Odor (C1)								e Patterns (B10)		
Water Marks (B1)								Rhizospheres on Living Roots (C3)		
Sedime	ent Deposits (B2)			Rhizosph	eres on Liv	vina Roots	(C3) (where	e tilled)		
Drift De	eposits (B3)		(where i	not tilled	)	ing receic		Burrows (C8)		
Algal M	at or Crust (B4)		Presence	of Reduc	, ed Iron (C	4)		on Visible on Aerial Imagery (C9)		
Iron De	posits (B5)		Thin Muck	Surface	(C7)	- /	Geomor	phic Position (D2)		
	ion Visible on Aerial	Imagery (B	7) Other (Exc	plain in R	emarks)		FAC-Ne	utral Test (D5)		
Water-S	Stained Leaves (B9)		/		,		Frost-He	eave Hummocks (D7) (LRR F)		
Field Obse	rvations:									
Surface Wa	ter Present?	res	No X Depth (in	ches):						
Water Table	e Present?	res	No X Depth (in	ches):						
Saturation F	Present?	Yes	No X Depth (in	ches).		Wet	and Hydrology Pr	esent? Yes <sup>X</sup> No		
(includes ca	pillary fringe)			onoo)						
Describe Re	ecorded Data (stream	n gauge, m	onitoring well, aerial	photos, p	revious ins	spections),	if available:			
Remarks:										
Depress	ional area as	sociated	d with former o	channe	el scar					



Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia	/Fannin	Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling Point: WP 1410
Investigator(s): _ason Voight, Andrew Sample	_ Section, Township, R	ange:	
Landform (hillslope, terrace, etc.): Valley	_ Local relief (concave	e, convex, none): <u>Concave</u>	Slope (%): 0-1%
Subregion (LRR): Southwest Prairies Lat: 33	.46214	Long: <u>-95.91925</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 y	ear? Yes X No	(If no, explain in R	emarks.)
Are Vegetation, Soil, or Hydrology significantly	y disturbed? Are	e "Normal Circumstances" p	present? Yes X No
Are Vegetation, Soil x, or Hydrology naturally p	roblematic? (If r	needed, explain any answe	ers in Remarks.)
SUMMARY OF FINDINGS – Attach site map showin	g sampling point	locations, transects	, important features, etc.

Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present?	Yes Yes Yes <u>x</u>	No <u>×</u> No <u>×</u> No	Is the Sampled Area within a Wetland?	Yes	No <u>×</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 )	<u>% Cover</u>	<u>Species?</u>	Status	Number of Dominant Species
1. Quercus macrocarpa	25	Yes	FACU	That Are OBL, FACW, or FAC
2. Maclura pomifera	25	Yes	FACU	(excluding FAC-): (A)
3. Celtis laevigata	10	No	FAC	Total Number of Dominant
4. Ulmus crassifolia	25	Yes	FAC	Species Across All Strata: <u>6</u> (B)
700 /	85	= Total Cov	ver	Percent of Dominant Species
Sapling/Shrub Stratum (Plot size: 700 sq ft )	_			That Are OBL, FACW, or FAC: 50% (A/B)
1. Fraxinus pennsylvanica	5	No	FAC	Dravalance Index workshoets
2. Celtis laevigata	5	No	FAC	
3. Gleditsia triacanthos	1	No	FAC	Iotal % Cover of:Multiply by:
4.				OBL species $\frac{15}{2}$ $x = \frac{15}{2}$
5.				FACW species $5$ $x 2 = 10$
	11	- Total Cov	/er	FAC species $66$ x 3 = $198$
Herb Stratum (Plot size: 450 sq ft)		- 10101 001		FACU species $50$ x 4 = $200$
1. Carex crus-corvi	15	Yes	OBL	UPL species $20$ x 5 = $100$
2. Lolium multiflorum	20	Yes	UPL	Column Totals: <u>156</u> (A) <u>523</u> (B)
3. Elymus virginicus	20	Yes	FAC	
4. Ptilimnium nuttalli	5	No	FACW	Prevalence Index = $B/A = \frac{3.35}{2}$
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 <sup>1</sup>
o				4 - Morphological Adaptations <sup>1</sup> (Provide supporting
9				data in Remarks or on a separate sheet)
10			<u> </u>	Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
Weedy Vine Stretum (Plat size, 450	60	= Total Cov	ver	<sup>1</sup> Indicators of hydric soil and watland hydrology must
				be present, unless disturbed or problematic.
1				
2			<u> </u>	Hydrophytic
% Bare Ground in Herb Stratum 40 %	0	= Total Cov	ver	Present? Yes <u>No ×</u>
Remarks:				<u> </u>

JUIL
------

Depth	Matrix		Redo	x Features	3				
(inches)	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks	
0-18	10 YR 3/1	100					Clay		
	-								
					<u> </u>		<u> </u>		
				·					
·							·		
<sup>1</sup> Type: C=C	oncentration, D=De	pletion, RM=F	Reduced Matrix, CS	S=Covered	l or Coate	d Sand G	rains. <sup>2</sup> Locat	ion: PL=Pore Lining, N	I=Matrix.
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless othe	rwise note	ed.)		Indicators fo	or Problematic Hydric	Soils <sup>3</sup> :
Histosol	(A1)		Sandy (	Gleved Ma	trix (S4)		1 cm Mu	ck (A9) ( <b>LRR I, J</b> )	
Histic Ep	oipedon (A2)		Sandy F	Redox (S5)	)		Coast Pr	airie Redox (A16) (LRR	F, G, H)
Black Hi	istic (A3)		Stripped	d Matrix (S	6)		Dark Sur	face (S7) (LRR G)	,
🔲 Hydroge	en Sulfide (A4)		Loamy	Mucky Min	eral (F1)		🔲 High Plai	ins Depressions (F16)	
Stratified	d Layers (A5) ( <b>LRR</b>	F)	Loamy	Gleyed Ma	trix (F2)		(LRR	H outside of MLRA 72	<b>2 &amp; 73</b> )
🔲 1 cm Mւ	uck (A9) ( <b>LRR F, G</b> ,	<b>H</b> )	Deplete	d Matrix (F	-3)		Reduced	Vertic (F18)	
Deplete	d Below Dark Surfa	ce (A11)	Redox I	Dark Surfa	ce (F6)		Red Pare	ent Material (TF2)	
L Thick Da	ark Surface (A12)		Deplete	d Dark Su	rface (F7)	)	Very Sha	allow Dark Surface (TF1	2)
Sandy N	/lucky Mineral (S1)		Redox I	Depressior	ns (F8)		Other (Ex	xplain in Remarks)	
2.5 cm 🛚	Mucky Peat or Peat	(S2) (LRR G,	, <b>H</b> ) 📙 High Pla	ains Depre	ssions (F	16)	<sup>3</sup> Indicators of	hydrophytic vegetation	and
5 cm Mւ	ucky Peat or Peat (S	63) ( <b>LRR F</b> )	(ML	RA 72 & 7	3 of LRR	<b>H</b> )	wetland h	hydrology must be prese	ent,
							unless di	sturbed or problematic.	
Restrictive	Layer (if present):								
Туре:									
Depth (in	ches):						Hydric Soil Pr	resent? Yes	No <u>×</u>
Remarks:									
No redox	features obse	erved; Tinr	n clay, occasi	onally fl	ooded	is natio	nally listed h	ydric soil; natura	lly dark soil
HYDROLO	GY								
Wetland Hy	drology Indicators	:							
Primary India	cators (minimum of	one required.	check all that appl	V)			Secondary	Indicators (minimum o	f two required)
	Water (A1)	<u>ono roquirou</u>		(B11)				e Soil Cracks (B6)	<u></u>
	$\frac{1}{2} \frac{1}{2} \frac{1}$			(DTT)	- (P12)			oly Vogotated Concerve	Surface (B8)
	aler Table ( $AZ$ )				S(D13)			an Dettorne (P10)	Sunace (BO)
									in a De ete (C2)
				n vvaler i					ing Roots (C3)
	nt Deposits (B2)			knizospher	es on Liv	ing Roots		ere tilled)	
	posits (B3)		(where	not tilled)				sh Burrows (C8)	()
	at or Crust (B4)			of Reduce	d Iron (C4	1)		ation Visible on Aerial In	nagery (C9)
I Iron Dep	posits (B5)			Surface (	C7)			orphic Position (D2)	
Inundati	on Visible on Aerial	Imagery (B7)	U Other (Exp	plain in Re	marks)			leutral Test (D5)	
✓ Water-S	tained Leaves (B9)						Frost-I	Heave Hummocks (D7)	(LRR F)
Field Obser	vations:								
Surface Wat	er Present?	Yes N	o X Depth (in	ches):		_			
Water Table	Present?	Yes N	o <u>×</u> Depth (in	ches):					
Saturation P	resent?	Yes N	o X Depth (in	ches):		Wet	land Hydrology F	Present? Yes X	No
(includes cap	oillary fringe)			,		_			
Describe Re	corded Data (strear	n gauge, mor	itoring well, aerial	photos, pre	evious ins	pections),	if available:		
Remarks:									
depressi	onal area ass	sociated v	with former c	hannel	scar				