Lake Ralph Hall	Appendix E
F 2. I	al Data and a street Complete and Day and
E-3: Jurisdiction	al Determination Supplement Report



(972) 219-1228 • Fax (972) 221-9896

June 22, 2017

Mr. Chandler Peter
Project Manager, Technical Specialist
Fort Worth District
U.S. Army Corps of Engineers
819 Taylor Street, Room 3A37
P.O. Box 17300
Fort Worth, Texas 76102-0300

Re: Supplemental Report in Support of Request for AJD for proposed Lake Ralph Hall project North Sulphur River, Fannin County, Texas Project Number SWF-2003-00336

Dear Mr. Peter:

As requested in your email dated April 17, 2017 and further discussed during the May 3, 2017 meeting, the Upper Trinity Regional Water District (UTRWD) has completed the additional work to support its March 29, 2017 request for an approved jurisdictional determination (AJD) for the proposed Lake Ralph Hall project. Accordingly, enclosed please find a Supplemental Report in support of this AJD request. This Report summarizes the extent of additional work conducted along with supporting field documentation, a comprehensive listing of all delineated aquatic resources, mapbooks of the delineated aquatic resources, wetland determination data forms, and photographs. As noted, this Supplemental Report is intended to clarify and further supplement UTRWD's request for an AJD.

We appreciate your effort to expedite review and final determination of this AJD request and your ongoing efforts to complete the Draft Environmental Impact Statement for the proposed Lake Ralph Hall project. If you have any questions regarding this submittal, please contact Larry Patterson at (972)-219-1228 or lpatterson@utrwd.com.

Sincerely,

Thomas E. Taylor Executive Director

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Mr. Chandler Peter
LRH – Supplemental Report in Support of Request for AJD
Project # SWF-2003-00336
June 22, 2017
Page 2

Enclosures: Supplemental Report in Support of Request for Approved Jurisdictional

Determination of Waters of the United States for the proposed Lake Ralph Hall

project, dated June 21, 2017

cc: Larry N. Patterson, P.E. w/enclosures

Edward M. Motley, BCEE, P.E. w/enclosures

Lake Ralph Hall Project File

SUPPLEMENTAL REPORT IN SUPPORT OF REQUEST FOR APPROVED JURISDICTIONAL DETERMINATION OF WATERS OF THE UNITED STATES

Proposed Lake Ralph Hall
Fannin County, Texas

USACE Project No.: SWF-2003-00336

APPLICANT:

Upper Trinity Regional Water District



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SCANNED



June 21, 2017

Ву_____

Prepared by:



Supplemental Report in Support of Request for Approved Jurisdictional Determination of Waters of the United States for the Proposed Lake Ralph Hall, Fannin County, Texas US Army Corps of Engineers Project No.: SWF-2003-00336

1. Purpose

A letter, dated March 29, 2017, requesting an approved jurisdictional determination (AJD) for the portion of the proposed Lake Ralph Hall project site located in Fannin County, Texas was submitted by the Upper Trinity Regional Water District (UTRWD) to the U.S. Army Corps of Engineers (USACE). The purpose of this Supplemental Report is to respond to the USACE's request for additional information in support of UTRWD's request and to update and document the current conditions of aquatic resources within the proposed Lake Ralph Hall project area as well as to document aquatic resources within areas identified for potential mitigation. The previous documentation of aquatic resources was published in a Preliminary Jurisdictional Determination (PJD) report dated October 26, 2006.

Since the 2006 PJD report, the assessment area has experienced physical and administrative changes. These modifications include land use alterations by current land-owners; continued erosion and degradation of area streams; U.S. Army Corps of Engineer's guidance documents (subsequent to 2006); and design refinements associated with the dam/embankment structure, spillway system, intake structure and pump station, recent LIDAR data, and the addition of the mitigation assessment area.

The approximately 13,094-acre assessment area documented in this Supplemental Report includes:

- The 7,568-acre reservoir with a conservation pool set at elevation 551 feet above mean sea level:
- Embankment structure (dam);
- Spillway system;
- Intake structure and pump station;
- Project boundary representing +/- 560-feet elevation; and
- Area(s) identified as potential mitigation lands located downstream of dam to FM 904.

2. Methods

The 2006 PJD report utilized the following datasets:

- Aerial photographs flown 2003-2005
- US Geological Survey (USGS) topographic maps
 - o Farmersville, Greenville NW, Celeste, Pike, Wolfe City, Gober, Ladonia, Honey Grove and Dodd city quadrangles
- Soil Survey Fannin County
- National Wetlands Inventory maps

- National Hydrography Dataset
- Field investigations conducted in 2005

For this Supplemental Report, the following datasets were utilized to identify and address modifications to the 2006 PJD report:

- Aerial photographs from 2014, 2015, and 2016
 - 2014 and 2016 Aerial photographs from the USDA Farm Service Agency's National Agricultural Inventory Program (1-meter resolution)
 - o 2015 Texas Orthoimagery Project (0.5-meter resolution)
- Google Earth[™] imagery from 1995, 2008, 2010, 2011, 2012, 2014, and 2015
 - Aquatic resource data converted to KMZ file structure for review in Google Earth

The higher resolution aerial photographs from 2014-2016 compared to those used in the 2006 PJD report facilitated in refinements of the previously identified (delineated) aquatic resources as well as identification in modifications to aquatic resources within the project area (erosional features, impoundments, etc.). These refinements to the delineated aquatic resources were performed as a "desktop" evaluation.

To ground-truth observations from the desktop evaluation, field investigations were performed May 30 through June 2, 2017 to assess a representative sample area of portions of the 13,094-acre assessment area. These "on the ground" assessments aided in verification of identified aquatic resources from the desktop evaluation as well as to map the limits of potential waters of the U.S. identified both from the desktop evaluation and in the field. As an example, 14 of the 47 mapped on-channel ponds within the assessment area representing approximately 29.7 percent were investigated in the field. Lacustrine "fringe" wetland areas associated with the 14 on-channel ponds assessed in the field were observed and recorded in the field. The lacustrine wetlands, predominantly herbaceous emergent wetlands, represented approximately 3.4 acres of the 23.8 acres of the 14 on-channel ponds assessed or approximately 14.3 percent of the assessed on-channel pond acreage. This percentage of fringe wetlands was used to estimate the lacustrine wetland area associated with the total delineated area of on-channel impoundments within the assessment area that would be considered as hydraulically and hydrologically connected to waters of the U.S.

To refine mapping, waypoints recorded during the 2017 field investigation were cross-referenced with topographic maps (both LIDAR generated and USGS topographic maps) and aerial photographs to accurately determine the limits of waters of the U.S. within specific areas assessed for this Supplemental Report. In order to quantify the entire footprint for the proposed reservoir, Geographic Information System (GIS) technologies, specifically ESRI's ARCGIS 10.2, were used to identify various spectral signatures associated with the 2014, 2015, and 2016 aerial photographs. The signatures from the verified aquatic resources were then crossed-reference to comparable resources within inaccessible tracts to determine the limits of the

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¹ Aquatic resources were recorded using a Garmin GPSMAP 78s with sub-3 meter accuracy; field tested to 5 feet accuracy.

aquatic resources for the entirety of the 13,094-acre assessment area; thereby, delineating the limits of aquatic resources for the entire Supplemental Report assessment area.

3. Results

As documented in the 2006 PJD report, historical channelization of the North Sulphur River and major tributaries has resulted in excessive erosion within the entirety of the North Sulphur River watershed. The consequence of this channelization is greatly enlarged channels with capacities to contain and convey greater than the 100-year flood flows. Accordingly, the stream channels within the 13,094 assessment area, to include the North Sulphur River, do not exhibit a floodplain – the stream channels do not overbank even in the most severe rain events. Therefore, wetland areas identified within the 13,094-acre assessment area, except for fringe lacustrine wetlands associated with on-channel impoundments, are not hydraulically or hydrologically connected to any stream channels. Approximately 3.8 acres of isolated forested wetlands were identified within the Supplemental Report assessment area. However, these wetlands do not contribute to the chemical, physical, and biological integrity of waters of the U.S. Consequently, the wetlands identified within the 13,094-acre assessment area, aside from those associated with on-channel lacustrine fringe wetlands, should be considered "isolated" and not subject to Section 404 of the Clean Water Act. The following tables summarize the delineated aquatic resources observed within the 13,094-acre assessment area.

Table 1: Summary of Delineated Stream Channels Within Assessment Area

Within Conservati	Within Conservation Pool, Embankment, Spillway of Lake Ralph Hall						
Category	Description	Linear Feet					
Stream Channel	Ephemeral 0.5 - 2.0' wide North Side	26,835					
Stream Channel	Ephemeral 2.5 - 5.0' wide - North Side	88,309					
Stream Channel	Ephemeral 6 - 15' wide - North Side	55,023					
Stream Channel	Ephemeral 16 - 25' wide - North Side	3,949					
Stream Channel	Ephemeral >25' wide - North Side	78,764					
Stream Channel	Ephemeral 0.5 - 2.0' wide South Side	19,769					
Stream Channel	Ephemeral 2.5 - 5.0' wide - South Side	66,967					
Stream Channel	Ephemeral 6 - 15' wide - South Side	92,155					
Stream Channel	Ephemeral 16 - 25' wide - South Side	5,321					
Stream Channel	Ephemeral >25' wide - South Side	8,396					
Stream Channel	Intermittent - North Sulphur River @ SH34	55,570					
Sub-Total							
Channels		501,058					

ation Pool, Embankment, Spillway but within Ass	Outside Conservation Pool, Embankment, Spillway but within Assessment Area					
Description	Linear Feet					
Fabruary 0.5 0.00 wide North Oids	44.540					
	11,513					
· ·	0.000					
	2,639					
	22,872					
<u> </u>						
Creek Tribs	5,171					
Ephemeral 6 - 15' wide - North Side	13,037					
Ephemeral 16 - 25' wide - North Side	2,463					
Ephemeral >25' wide - North Side	11,897					
Ephemeral 0.5 - 2.0' wide South Side	22,690					
Ephemeral 2.5 - 5.0' wide - South Side	49,968					
Ephemeral 6 - 15' wide - South Side	37,535					
Ephemeral 16 - 25' wide - South Side	0					
Ephemeral >25' wide - South Side	0					
Intermittent - North Sulphur River - downstream						
of dam (FM 904)	6,387					
Intermittent - North Sulphur River - upstream of						
pool (FM 38)	3,689					
	189,860					
	690,918					
	Ephemeral 0.5 - 2.0' wide North Side Ephemeral 0.5 - 2.0' wide North Side - Baker Creek Tribs Ephemeral 2.5 - 5.0' wide - North Side Ephemeral 2.5 - 5.0' wide - North side - Baker Creek Tribs Ephemeral 6 - 15' wide - North Side Ephemeral 16 - 25' wide - North Side Ephemeral >25' wide - North Side Ephemeral >25' wide - North Side Ephemeral 0.5 - 2.0' wide South Side Ephemeral 2.5 - 5.0' wide - South Side Ephemeral 6 - 15' wide - South Side Ephemeral 16 - 25' wide - South Side Ephemeral >25' wide - South Side Intermittent - North Sulphur River - downstream of dam (FM 904) Intermittent - North Sulphur River - upstream of					

TABLE 2: ON-CHANNEL PONDS (OCPs) SUMMARY

	ACRES	NUMBER	LOCATION
			CONSERVATION POOL (CP), DAM,
SUBTOTAL	56.19	33	SPILLWAY
SUBTOTAL	13.69	14	OUTSIDE CP, DAM, SPILLWAY
TOTAL	69.89	47	WITHIN ASSESSMENT AREA

Range in size from 0.04 acre to 23.8 acres

SIZE BREAKDOWN		
Small Ponds (≤ 1 acre):	32	
Ponds (>1 acre but ≤ 5 acres):	13	
Lakes (>5 acres but ≤500 acres):	2	

Total # Within Assessment Area	Total # Assessed	Percentage of Total Assessed	Total Acreage of OCPs within Assessment	Total Acreage Assessed	Percentage of Total Acreage Assessed
			Area		
47	14	29.7	69.9	23.8	34.0
Total # Within	# Assessed	Percentage of	Total Acreage	Acreage of	Percentage of
Conservation		# Within	of OCPs within	OCPs	Acreage within
Pool/Dam/Spill		Conservation	Conservation	Assessed	Conservation
way Area		Pool/Dam/Spill	Pool/Dam/Spill	within	Pool/Dam/Spill
		way Area	way Area	Conservation	way Area
		Assessed		Pool/Dam/Spill	Assessed
				way Area	
33	13	39.4	56.2	21.4	38.1

Calculated Area of Lacustrine Fringe Wetlands

3.4 acres identified for 23.8 acres of 14 on-channel ponds field assessed = 14.3 percent 14.3 percent of 69.9 acres of 47 on-channel ponds within assessment area = 10 acres

TABLE 3: UPLAND PONDS (UPs) SUMMARY

	ACRES	NUMBER	LOCATION
			CONSERVATION
SUBTOTAL	52.37	115	POOL/DAM/SPILLWAY
SUBTOTAL	30.63	97	OUTSIDE CP/DAM/SPILLWAY
TOTAL	83.00	212	WITHIN ASSESSSMENT AREA

Range in size from 0.02 acre to 3.26 acres

SIZE BREAKDOWN	
Small Ponds (< 1 acre):	194
Ponds (>1 acre but < 5 acres):	18
Lakes (>5 acres but <500 acres):	0

TABLE 3: UPLAND PONDS SUMMARY (CONT.)

Total # Within Assessment Area	Total # Assessed	Percentage of Total Assessed	Total Acreage of UPs within Assessment Area	Total Acreage Assessed	Percentage of Total Acreage Assessed
212	20	9.4	83.0	23.2	28

Total # Within	# Assessed	Percentage of	Total Acreage	Acreage of	Percentage of
Conservation		# Within	of UPs within	UPs Assessed	Acreage within
Pool/Dam/Spill		Conservation	Conservation	within	Conservation
way Area		Pool/Dam/Spill	Pool/Dam/Spill	Conservation	Pool/Dam/Spill
		way Area	way Area	Pool/Dam/Spill	way Area
		Assessed		way Area	Assessed
115	10	8.7	52.4	13.2	25.2

A comprehensive summary of all delineated aquatic resources within the 13,094-acre assessment area is provided in Appendix A. Within Appendix A, summary tables detail the following aquatic resources:

- Streams
- Open waters
 - o On-channel impoundments
 - Upland, isolated ponds²
- Isolated forested wetlands

Mapbooks of the delineated aquatic resources are included in Appendix B. The mapbooks detail the following aquatic resources delineated within the 13,094-acre assessment area:

- Overall Aquatic Resources Delineated
- Delineated Streams
- Delineated Open Waters
 - o On-channel impoundments
 - Upland, isolated ponds
- Delineated Isolated Forested Wetlands

Wetland determination data forms for delineated but isolated aquatic resources are included in Appendix C with a mapbook showing the location of the wetland determination sampling points. Photographs of the resources recorded along the numerous sampling locations are included with the data forms. Finally, additional photographs from the 2017 on-site investigation of the open water aquatic resources within the 13,094-acre assessment area are provided in Appendix D.

² Ponds or open waters typically used for livestock.

APPENDIX A AQUATIC RESOURCE SUMMARY TABLES

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
NSR	135.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	12,727
NSR	65.0	NORTH SULPHUR RIVER	>25'	Intermittent	OUTSIDE CP, DAM, SPILLWAY	3,689
NSR	150.0	NORTH SULPHUR RIVER	>25'	Intermittent	OUTSIDE CP, DAM, SPILLWAY	6,387
NSR	150.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	692
NSR	65.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	5,089
NSR	85.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	7,330
NSR	85.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	14,183
NSR	100.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	12,880
NSR	150.0	NORTH SULPHUR RIVER	>25'	Intermittent	CONSERVATION POOL, DAM, SPILLWAY	2,668
N1	85.0	STREAM N1 - MERRILL CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	24,057
N1	50.0	STREAM N1 - MERRILL CREEK	>25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	521
N1-TRIB1	4.0	TRIBUTARY 1 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,171
N1-TRIB1	4.0	TRIBUTARY 1 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	514
N1-TRIB1	4.0	TRIBUTARY 1 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	878
N1-TRIB10	2.0	TRIBUTARY 10 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	782
N1-TRIB10	1.0	TRIBUTARY 10 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	171
N1-TRIB11	5.0	TRIBUTARY 11 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,020
N1-TRIB11-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	850
N1-TRIB12	3.5	TRIBUTARY 12 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,503
N1-TRIB12	2.0	TRIBUTARY 12 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	103
N1-TRIB13	2.0	TRIBUTARY 13 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,826
N1-TRIB13	2.0	TRIBUTARY 13 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	85
N1-TRIB13	5.0	TRIBUTARY 13 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	758
N1-TRIB14	5.0	TRIBUTARY 14 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,797
N1-TRIB14	3.0	TRIBUTARY 14 TO MERRILL CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	362
N1-TRIB14-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	202
N1-TRIB14-A1	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	246
N1-TRIB15	15.0	TRIBUTARY 15 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,412
N1-TRIB15	11.0	TRIBUTARY 15 TO MERRILL CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	919
N1-TRIB15-A1	8.0	SECONDARY TRIBUTARY	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	909
N1-TRIB15-A2	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	437
N1-TRIB15-A3	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	215
N1-TRIB15-A4	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	172

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N1-TRIB15-A5	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	294
N1-TRIB15-A6	6.0	SECONDARY TRIBUTARY	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	507
N1-TRIB15-A6	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	137
N1-TRIB16	15.0	TRIBUTARY 15 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,380
N1-TRIB16-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	173
N1-TRIB16-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	556
N1-TRIB16-A2	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	541
N1-TRIB16-A2	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	209
N1-TRIB16-A3	6.0	SECONDARY TRIBUTARY	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	572
N1-TRIB16-A3	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	756
N1-TRIB17	4.0	TRIBUTARY 17 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	906
N1-TRIB17	3.0	TRIBUTARY 17 TO MERRILL CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,325
N1-TRIB17-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	273
N1-TRIB18	4.0	TRIBUTARY 18 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	242
N1-TRIB19	6.0	TRIBUTARY 19 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	518
N1-TRIB19	5.0	TRIBUTARY 19 TO MERRILL CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,379
N1-TRIB19-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	281
N1-TRIB1-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,519
N1-TRIB1-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	629
N1-TRIB1-A2	2.5	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	346
N1-TRIB1-A4	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	126
N1-TRIB2	1.5	TRIBUTARY 2 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	793
N1-TRIB20	4.0	TRIBUTARY 20 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	56
N1-TRIB20	2.0	TRIBUTARY 20 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	144
N1-TRIB21	10.0	TRIBUTARY 21 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	207
N1-TRIB21	8.0	TRIBUTARY 21 TO MERRILL CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	698
N1-TRIB3	5.0	TRIBUTARY 3 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,965
N1-TRIB3	5.0	TRIBUTARY 3 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	521
N1-TRIB3	1.0	TRIBUTARY 3 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	390
N1-TRIB4	1.5	TRIBUTARY 4 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,361
N1-TRIB4	1.5	TRIBUTARY 4 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	639
N1-TRIB5	1.0	TRIBUTARY 5 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	667
N1-TRIB6	4.0	TRIBUTARY 6 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,393

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N1-TRIB6	6.0	TRIBUTARY 6 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,365
N1-TRIB6	2.0	TRIBUTARY 6 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	367
N1-TRIB6	2.0	TRIBUTARY 9 TO MERRILL CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	86
N1-TRIB6-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	443
N1-TRIB6-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	487
N1-TRIB6-A2	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,999
N1-TRIB6-A3	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	866
N1-TRIB7	4.0	TRIBUTARY 7 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,532
N1-TRIB7-A1	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,059
N1-TRIB8	1.0	TRIBUTARY 8 TO MERRILL CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	356
N1-TRIB9	11.0	TRIBUTARY 9 TO MERRILL CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,053
N1-TRIB9	3.0	TRIBUTARY 9 TO MERRILL CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	4,486
N1-TRIB9	3.0	TRIBUTARY 9 TO MERRILL CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,253
N1-TRIB9-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,250
N1-TRIB9-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	415
N1-TRIB9-A2	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	973
N1-TRIB9-A3	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	502
N1-TRIB9-A4	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	462
N1-TRIB9-A5	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	304
N1-TRIB9-A6	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	289
N1-TRIB9-A6	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	264
N2	4.0	STREAM N2 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	199
N2	4.0	STREAM N2 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	442
N3	6.0	STREAM N3 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	924
N4	2.5	STREAM N4 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,676
N4	2.5	STREAM N4 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,030
N4	2.5	STREAM N4 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,207
N5	2.5	STREAM N5 - FMR NSR	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,840
N6	3.0	STREAM N6 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	939
N6	8.0	STREAM N6 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,427
N6	3.0	STREAM N6 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,851
N6	15.0	STREAM N6 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,255
N6	15.0	STREAM N6 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,021

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N6	5.0	STREAM N6 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,152
N6-TRIB1	4.0	TRIBUTARY 1 TO STREAM N6	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,594
N6-TRIB1	2.0	TRIBUTARY 1 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,180
N6-TRIB1	2.0	TRIBUTARY 1 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	481
N6-TRIB1	2.0	TRIBUTARY 1 TO STREAM N6	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	945
N6-TRIB1	8.0	TRIBUTARY 1 TO STREAM N6	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,356
N6-TRIB1-A1	2.0	TRIB A1 TO TRIB 1 OF N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	137
N6-TRIB1-A3	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,015
N6-TRIB2	2.0	TRIBUTARY 2 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,188
N6-TRIB2	2.0	TRIBUTARY 2 TO STREAM N6	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	441
N6-TRIB3	2.0	TRIBUTARY 3 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	891
N6-TRIB4	1.0	TRIBUTARY 4 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	581
N6-TRIB4	1.0	TRIBUTARY 4 TO STREAM N6	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	519
N6-TRIB5	2.0	TRIBUTARY 5 TO STREAM N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	550
N6-TRIB5	2.5	TRIBUTARY 5 TO STREAM N6	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	358
N6-TRIB5-A1	1.0	TRIB A1 TO TRIB 5 OF S-N6	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	205
N7	6.0	STREAM N7 - FMR BRALLEY POOL	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,859
N7-TRIB1	1.5	TRIBUTARY 1 TO STREAM N7	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	512
N8	80.0	STREAM N8 - BRALLEY POOL	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	18,514
N8	50.0	STREAM N8 - BRALLEY POOL	>25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,250
N8-TRIB1	2.0	TRIBUTARY 1 TO BRALLEY POOL	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	485
N8-TRIB1	8.0	TRIBUTARY 1 TO BRALLEY POOL	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	448
N8-TRIB1	5.0	TRIBUTARY 1 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	446
N8-TRIB10	2.0	TRIBUTARY 10 TO BRALLEY POOL	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	454
N8-TRIB10	2.0	TRIBUTARY 10 TO BRALLEY POOL	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	650
N8-TRIB10-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	396
N8-TRIB11	2.0	TRIBUTARY 11 TO BRALLEY POOL	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	123
N8-TRIB2	6.0	TRIBUTARY 2 TO BRALLEY POOL	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,043
N8-TRIB2	3.0	TRIBUTARY 2 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	812
N8-TRIB3	5.0	TRIBUTARY 3 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,450
N8-TRIB3	5.0	TRIBUTARY 3 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	137
N8-TRIB3	5.0	TRIBUTARY 3 TO BRALLEY POOL	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	189
N8-TRIB4	5.0	TRIBUTARY 8 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	351

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N8-TRIB5	4.0	TRIBUTARY 5 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,659
N8-TRIB5	4.0	TRIBUTARY 5 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	812
N8-TRIB5	4.0	TRIBUTARY 5 TO BRALLEY POOL	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	753
N8-TRIB5-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	423
N8-TRIB6	5.0	TRIBUTARY 6 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,509
N8-TRIB6	3.0	TRIBUTARY 6 TO BRALLEY POOL	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	269
N8-TRIB7	2.0	TRIBUTARY 7 TO BRALLEY POOL	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	557
N8-TRIB8	5.0	TRIBUTARY 8 TO BRALLEY POOL	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	297
N8-TRIB8	5.0	TRIBUTARY 8 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	140
N8-TRIB9	4.0	TRIBUTARY 9 TO BRALLEY POOL	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	935
N10	5.0	STREAM N10 - LEGGETS BRANCH	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,632
N10	5.0	STREAM N10 - LEGGETS BRANCH	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,754
N10	12.0	STREAM N10 - LEGGETS BRANCH	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,797
N10-TRIB1	3.0	TRIBUTARY 1 TO LEGGETS BRANCH	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,100
N10-TRIB1	3.0	TRIBUTARY 1 TO LEGGETS BRANCH	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	535
N10-TRIB2	5.0	TRIBUTARY 2 TO LEGGETS BRANCH	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,545
N10-TRIB2	5.0	TRIBUTARY 2 TO LEGGETS BRANCH	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	431
N10-TRIB3	3.0	TIRBUTARY 3 TO LEGGETS BRANCH	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	934
N11	5.0	STREAM N11 - FMR DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,470
N12	15.0	STREAM N12 - DAVIS CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	10,152
N12	15.0	STREAM N12 - DAVIS CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,079
N12	65.0	STREAM N12 - DAVIS CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,435
N12-TRIB1	3.0	TRIBUTARY 1 TO DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	680
N12-TRIB2	3.0	TRIBUTARY 2 TO DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,403
N12-TRIB2	2.0	TRIBUTARY 2 TO DAVIS CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	992
N12-TRIB3	3.0	TRIBUTARY 3 TO DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	599
N12-TRIB3	1.5	TRIBUTARY 3 TO DAVIS CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	759
N12-TRIB4	2.0	TRIBUTARY 4 TO DAVIS CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	717
N12-TRIB5	3.0	TRIBUTARY 5 TO DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	206
N12-TRIB5	5.0	TRIBUTARY 5 TO DAVIS CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	612
N12-TRIB6	1.0	TRIBUTARY 6 TO DAVIS CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	165
N12-TRIB7	3.0	TRIBUTARY 7 TO DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	457
N12-TRIB7	3.0	TRIBUTARY 7 TO DAVIS CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	139

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N12-TRIB8	15.0	TRIBUTARY 8 TO DAVIS CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,350
N12-TRIB8	15.0	TRIBUTARY 8 TO DAVIS CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,575
N12-TRIB8-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	169
N12-TRIB8-A1	5.0	TRIBUTARY 8 TO DAVIS CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	506
N12-TRIB9	5.0	TRIBUTARY 9 TO DAVIS CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	193
N13	5.0	STREAM N13 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,840
N13-TRIB1	0.5	TRIBUTARY 1 TO STREAM 13	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	456
N14	5.0	STREAM N14 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,578
N15	40.0	STREAM N15 - PICKLE CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	12,176
N15	15.0	STREAM N15 - PICKLE CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,925
N15	25.0	STREAM N15 - PICKLE CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,324
N15-TRIB1	5.0	TRIBUTARY 1 TO PICKLE CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,861
N15-TRIB1	2.0	TRIBUTARY 1 TO PICKLE CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,007
N15-TRIB1	4.0	TRIBUTARY 1 TO PICKLE CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,154
N15-TRIB1	2.0	TRIBUTARY 1 TO PICKLE CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,689
N15-TRIB1-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,623
N15-TRIB1-A2	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,244
N15-TRIB2	3.0	TRIBUTARY 2 TO PICKLE CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	849
N15-TRIB2	3.0	TRIBUTARY 2 TO PICKLE CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	594
N15-TRIB3	2.0	TRIBUTARY 3 TO PICKLE CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	46
N15-TRIB3	2.0	TRIBUTARY 3 TO PICKLE CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,304
N15-TRIB4	6.0	TRIBUTARY 4 TO PICKLE CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	769
N15-TRIB4-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	390
N16	9.0	STREAM N16 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,408
N17	5.0	STREAM N17 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	176
N17	5.0	STREAM N17 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	915
N17	5.0	STREAM N17 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,037
N17-TRIB1	1.0	TRIBUTARY 1 TO N17	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	226
N18-TRIB3	2.0	TRIBUTARY 3 TO BRUSHY CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	298
N18	95.0	STREAM N18 - BRUSHY CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	9,474
N18	35.0	STREAM N18 - BRUSHY CREEK	>25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	3,574
N18	40.0	STREAM N18 - BRUSHY CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,612
N18-TRIB1	0.5	TRIBUTARY 1 TO BRUSHY CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	452

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
N18-TRIB2	1.0	TRIBUTARY 2 TO BRUSHY CREEK	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,501
N18-TRIB2-A1	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	272
N18-TRIB4	3.0	TRIBUTARY 4 TO BRUSHY CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,222
N18-TRIB5	55.0	N18-TRIB5 - POT CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,614
N18-TRIB5	40.0	N18-TRIB5 - POT CREEK	>25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,855
N18-TRIB5-A1	5.0	TRIBUTARY 1 TO POT CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,146
N18-TRIB5-A1	6.0	TRIBUTARY 1 TO POT CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,280
N18-TRIB6	2.0	TRIBUTARY 6 TO POT CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	272
N18-TRIB7	4.0	TRIBUTARY 7 TO POT CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	97
N19	3.5	STREAM N19 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	918
N20	15.0	STREAM N20 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,042
N20	5.0	STREAM N20 - FMR NSR	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,830
N20	8.0	STREAM N20 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,042
N20-TRIB1	3.0	TRIBUTARY 1 TO STREAM N20	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,288
N20-TRIB1	5.0	TRIBUTARY 1 TO STREAM N20	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,182
N20-TRIB1-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	166
N21	8.0	STREAM N21 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,300
N21	8.0	STREAM N21 - FMR NSR	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	801
N22	25.0	STREAM N22 - BEAR CREEK	16-25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,949
N22	25.0	STREAM N22 - BEAR CREEK	16-25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,463
N22-TRIB1	3.0	TRIBUTARY 1 TO BEAR CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	182
N22-TRIB1	2.0	TRIBUTARY 1 TO BEAR CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	608
N22-TRIB2	7.0	TRIBUTARY 2 TO BEAR CREEK	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,676
N22-TRIB2	6.0	TRIBUTARY 2 TO BEAR CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,726
N22-TRIB3	5.0	TRIBUTARY 3 TO BEAR CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	226
N23	45.0	STREAM N23 - ALLEN CREEK	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,557
N23	45.0	STREAM N23 - ALLEN CREEK	>25'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,697
N24	10.0	STREAM N24 - UNNAMED	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	266
S1	15.0	STREAM S1 - FMR NSR	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,483
S1	15.0	STREAM S1 - FMR BAKER CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,448
S1-TRIB1	4.0	TRIBUTARY 1 TO STREAM S1	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,768
S2	15.0	STREAM S2 - FRM NSR	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,166
S2	15.0	STREAM S2 - FRM NSR	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	3,955

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S2-TRIB1	6.0	TRIBUTARY 1 TO S2	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	5,676
S2-TRIB1	6.0	TRIBUTARY 1 TO S2	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,642
S2-TRIB1	15.0	TRIBUTARY 1 TO S2 (FMR NSR)	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,163
S2-TRIB1-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,833
S2-TRIB1-A2	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,261
S2-TRIB1-A3	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,848
S2-TRIB1-A4	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	967
S2-TRIB1-A5	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	384
S2-TRIB1-A6	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	158
S2-TRIB2	5.0	TRIBUTARY 2 TO S2	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	8,398
S2-TRIB2-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	702
S2-TRIB2-A2	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	671
S2-TRIB2-A3	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,574
S2-TRIB2-A4	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	747
S2-TRIB3	10.0	TRIBUTARY 3 TO S2	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	10,645
S2-TRIB3	10.0	TRIBUTARY 3 TO S2	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	172
S2-TRIB3-A1	8.0	SECONDARY TRIB (FMR NSR)	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	247
S2-TRIB3-A10	2.5	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	10,645
S2-TRIB3-A2	6.0	SECONDARY TRIB (FMR NSR)	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	598
S2-TRIB3-A3	8.0	SECONDARY TRIB (FMR NSR)	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	210
S2-TRIB3-A4	10.0	HEDRICK BRANCH- S2-TRIB3-A4	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	7,884
S2-TRIB3-A4	6.0	HEDRICK BRANCH- S2-TRIB3-A4	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	532
S2-TRIB3-A4	2.0	HEDRICK BRANCH	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,163
S2-TRIB3-A4	2.0	HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	461
S2-TRIB3-A4-TribA	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,202
S2-TRIB3-A4-TribA	1.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	99
S2-TRIB3-A4-TribB	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	355
S2-TRIB3-A4-TribB	1.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	210
S2-TRIB3-A4-TribB	1.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	334
S2-TRIB3-A4-TribC	3.0	TRIBUTARY TO HEDRICK BRANCH	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	446
S2-TRIB3-A4-TribC	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	240
S2-TRIB3-A4-TribD	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	116
S2-TRIB3-A4-TribD	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	292

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S2-TRIB3-A4-TribE	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	401
S2-TRIB3-A4-TribE	2.0	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	112
S2-TRIB3-A5	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	4,152
S2-TRIB3-A5-TribA	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	574
S2-TRIB3-A5-TribB	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	697
S2-TRIB3-a6	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,209
S2-TRIB3-A7	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,280
S2-TRIB3-A8	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	762
S2-TRIB3-A9	0.5	TRIBUTARY TO HEDRICK BRANCH	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	58
S2-TRIB3-A9	2.5	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	367
S4	5.0	STREAM S4 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,497
S4	2.5	STREAM S4 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	326
S4	2.0	STREAM S4 - UNNAMED	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	589
S4	10.0	STREAM S4 - FRM NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,665
S4-TRIB1	10.0	TRIBUTARY 1 TO S4 (FMR NSR)	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,853
S4-TRIB2	6.0	TRIBUTARY 2 TO S4	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,403
S4-TRIB3	4.0	TRIBUTARY 3 TO S4	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,078
S4-TRIB3	3.0	TRIBUTARY 3 TO S4	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,496
S4-TRIB3	2.0	TRIBUTARY 3 TO S4	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	359
S4-TRIB4	2.0	TRIBUTARY 4 TO S4	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	601
S5	2.0	STREAM S5 - FMR NSR	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	864
S6	6.0	STREAM S6 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,262
S7	6.0	STREAM S7 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	656
S8	15.0	STREAM S8 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,970
S8	3.0	STREAM S8 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,457
S8	2.0	STREAM S8 - UNNAMED	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	515
S8	5.0	STREAM S8 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,139
S8-TRIB1	2.5	TRIBUTARY 1 TO S8	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,106
S8-TRIB1	2.5	TRIBUTARY 1 TO S8	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	121
S8-TRIB2	2.0	TRIBUTARY 2 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	602
S8-TRIB3	2.0	TRIBUTARY 3 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	170
S8-TRIB3	2.0	TRIBUTARY 3 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	501
S8-TRIB4	2.0	TRIBUTARY 4 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	830

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S8-TRIB4	2.0	TRIBUTARY 4 TO S8	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	307
S8-TRIB4-A1	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	161
S8-TRIB4-A1	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	123
S8-TRIB4-A2	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	288
S8-TRIB5	2.0	TRIBUTARY 5 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	922
S8-TRIB6	0.5	TRIBUTARY 6 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	214
S8-TRIB6	0.5	TRIBUTARY 6 TO S8	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	132
S8-TRIB7	2.0	TRIBUTARY 8 TO S8	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	348
S8-TRIB7	2.0	TRIBUTARY 8 TO S8	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	356
S9	15.0	STREAM 9 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,197
S9	5.0	STREAM 9 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,085
S9	5.0	STREAM 9 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,034
S9-TRIB1	2.0	TRIBUTARY 1 TO S9	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	309
S10	11.0	STREAM S10 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	6,658
S10-TRIB1	5.0	TRIBUTARY 1 TO S10	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	7,271
S10-TRIB1	5.0	TRIBUTARY 1 TO S10	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	899
S10-TRIB1-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	890
S10-TRIB1-A1	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	421
S10-TRIB1-A2	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	359
S10-TRIB1-A2	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,150
S10-TRIB2	1.5	TRIBUTARY 2 TO S10	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,705
S11	6.0	STREAM S11 - FMR BRALLEY POOL	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	345
S12	11.0	STREAM S12 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	6,304
S12	5.0	STREAM S12 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,801
S12	5.0	STREAM S12 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	6,304
S12	8.0	STREAM S12 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	6,304
S12-TRIB1	6.0	TRIBUTARY 1 TO S12	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	599
S12-TRIB2	11.0	TRIBUTARY 2 TO S12- FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	919
S12-TRIB3	3.0	TRIBUTARY 3 TO S12	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,285
S12-TRIB3-A1	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	388
S12-TRIB3-A2	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	249
S12-TRIB4	5.0	TRIBUTARY 4 TO S12	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,698
S12-TRIB4	2.0	TRIBUTARY 4 TO S12	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	540

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S12-TRIB5	0.5	TRIBUTARY 5 TO S12	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	920
S12-TRIB5	0.5	TRIBUTARY 5 TO S12	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	780
S12-TRIB5-A1	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	213
S12-TRIB6	0.5	TRIBUTARY 6 TO S12	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	415
S12-TRIB6	0.5	TRIBUTARY 6 TO S12	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	619
S12-TRIB7	2.5	TRIBUTARY 7 TO S12	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	938
S12-TRIB7-A1	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,042
S12-TRIB7-A2	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	253
S12-TRIB7-A3	0.5	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	156
S13	5.0	STREAM S13 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	750
S14	10.0	STREAM S14 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,629
S14-TRIB1	8.0	TRIB 1 TO S14- FMR LEGGETS BR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,336
S15	10.0	STREAM S15 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	7,294
S15-TRIB1	5.0	TRIBUTARY 1 TO S15	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,502
S15-TRIB1	2.0	TRIBUTARY 1 TO S15	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	175
S15-TRIB1	2.0	TRIBUTARY 1 TO S15	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	83
S15-TRIB1	2.0	TRIBUTARY 1 TO S15	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	676
S15-TRIB1-A1	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,790
S15-TRIB1-A1	2.5	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,346
S15-TRIB2	4.0	TRIBUTARY 2 TO S15	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,010
S15-TRIB2	6.0	TRIBUTARY 2 TO S15	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	896
S15-TRIB2-A1	6.0	SECONDARY TRIBUTARY	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	6,660
S15-TRIB2-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,391
S15-TRIB2-A2	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	367
S15-TRIB2-A2	4.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	790
S15-TRIB2-A3	2.5	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	408
S15-TRIB3	2.0	TRIBUTARY 3 TO S15	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	5,257
S15-TRIB3	2.0	TRIBUTARY 3 TO S15	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	942
S15-TRIB3-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	190
S15-TRIB4	5.0	TRIB 4 TO S15- FMR DAVIS CREEK	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,037
S16	40.0	STREAM S16 - UNNAMED	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	7,810
S16	10.0	STREAM S16 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,310
S16	8.0	STREAM S16 - UNNAMED	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,071

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S16	25.0	STREAM S16 - UNNAMED	16-25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,151
S16-TRIB1	8.0	TRIB 1 TO S16 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,619
S16-TRIB2	8.0	TRIB 2 TO S16 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,832
S16-TRIB3	3.0	TRIBUTARY 3 TO S16	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,177
S16-TRIB3	5.0	TRIBUTARY 3 TO S16	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	316
S16-TRIB3-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	165
S16-TRIB3-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	345
S16-TRIB3-A2	1.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	128
S16-TRIB4	5.0	TRIBUTARY 4 TO S16	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,423
S16-TRIB4	5.0	TRIBUTARY 4 TO S16	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	112
S16-TRIB4-A1	5.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	140
S16-TRIB5	2.0	TRIBUTARY 5 TO S16	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	224
S16-TRIB5	2.0	TRIBUTARY 5 TO S16	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	562
S16-TRIB6	5.0	TRIBUTARY 6 TO S16	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	883
S16-TRIB6	5.0	TRIBUTARY 6 TO S16	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	435
S16-TRIB6-A1	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	117
S16-TRIB6-A1	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	47
S16-TRIB7	5.0	TRIBUTARY 7 TO S16	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,592
S16-TRIB7	5.0	TRIBUTARY 7 TO S16	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	523
S16-TRIB7-A1	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	211
S16-TRIB7-A1	3.0	SECONDARY TRIBUTARY	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	154
S16-TRIB8	10.0	TRIBUTARY 8 TO S16	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	847
S16-TRIB8	10.0	TRIBUTARY 8 TO S16	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	520
S16-TRIB8-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	161
S16-TRIB9	4.0	TRIBUTARY 9 TO S16	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	144
S17	5.0	STREAM S17 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,507
S18	5.0	STREAM S18 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,764
S18	5.0	STREAM S18 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	927
S18-TRIB1	2.0	TRIBUTARY 1 TO S18	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	160
S19	12.0	STREAM S19 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	8,197
S19	12.0	STREAM S19 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	884
S19	12.0	STREAM S19 - UNNAMED	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,221
S19	4.0	STREAM S19 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	631

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S19-TRIB1	4.0	TRIBUTARY 1 TO S19	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	108
S19-TRIB1	4.0	TRIBUTARY 1 TO S19	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	498
S19-TRIB1-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	63
S19-TRIB2	4.0	TRIBUTARY 2 TO S19	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	249
S19-TRIB2	2.5	TRIBUTARY 2 TO S19	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	93
S19-TRIB2-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	143
S19-TRIB3	4.0	TRIBUTARY 3 TO S19	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	282
S19-TRIB4	5.0	TRIBUTARY 4 TO S19	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	255
S19-TRIB5	10.0	TRIBUTARY 5 TO S19	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	663
S20	12.0	STREAM S20 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	4,451
S20-TRIB1	8.0	TRIB 1 TO S20 - FMR NSR	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	967
S21	5.0	STREAM S21 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	3,683
S21	5.0	STREAM S21 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,727
S21	15.0	STREAM S21 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	897
S21	40.0	STREAM S21 - UNNAMED	>25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	586
S21	25.0	STREAM S21 - UNNAMED	16-25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	440
S21-TRIB1	4.0	TRIBUTARY 1 TO S21	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,469
S21-TRIB1	2.0	TRIBUTARY 1 TO S21	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,022
S21-TRIB1	8.0	TRIBUTARY 1 TO S21	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	226
S21-TRIB1	2.0	TRIBUTARY 1 TO S21	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	420
S21-TRIB1-A1	2.0	SECONDARY TRIBUTARY	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	275
S21-TRIB2	4.0	TRIBUTARY 2 TO S21	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	518
S22	8.0	STREAM S22 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	1,551
S22	5.0	STREAM S22 - UNNAMED	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,366
S22	22.0	STREAM S22 - UNNAMED	16-25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	958
S22	15.0	STREAM S22 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	904
S22-TRIB1	5.0	TRIBUTARY 1 TO S22	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	144
S22-TRIB2	3.0	TRIBUTARY 2 TO S22	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	263
S23	4.0	STREAM S23 - UNNAMED	2.5-5'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	298
S24	2.0	STREAM S24 - UNNAMED	0.5-2'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	130
S24	2.0	STREAM S24 - UNNAMED	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	143
S25	22.0	STREAM S25 - LONG CREEK	16-25'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	2,772
S25	15.0	STREAM S25 - LONG CREEK	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	3,092

TABLE A-1: COMPREHENSIVE LISTING OF STREAM CHANNELS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

	Width at OHWM					
ID_NAME	(feet)	AQUATIC_RESOURCE	Category	Classification	LOCATION	Length (L.F.)
S25-TRIB1	5.0	TRIBUTARY 1 TO S25	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	194
S26	15.0	STREAM S26 - UNNAMED	6-15'	Ephemeral	CONSERVATION POOL, DAM, SPILLWAY	633
S26	15.0	STREAM S26 - UNNAMED	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,922
S26-TRIB1	12.0	TRIBUTARY 1 TO S26	6-15'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	110
S27	2.0	STREAM S27 - UNNAMED	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	176
T1-BAKER	2.0	TRIBUTARY 1 TO BAKER CREEK	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	888
T2-BAKER	5.0	TRIBUTARY 2 TO BAKER CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,455
T2-BAKER	5.0	TRIBUTARY 2 TO BAKER CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	541
T3-BAKER	5.0	TRIBUTARY 3 TO BAKER CREEK	2.5-5'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	2,175
T3-TRIB1	2.0	TRIBUTARY 1 TO T3 (BAKER)	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	1,422
T3-TRIB2	2.0	TRIBUTARY 2 TO T3 (BAKER)	0.5-2'	Ephemeral	OUTSIDE CP, DAM, SPILLWAY	330

Notes:

- 1. Secondary Tributaries are headwater streams; all tributaries to the North Sulphur River are ephemeral.
- 2. Category refers to the categorical breakdown used for the functional assessment.
- 3. Streams identified as location "CONSERVATION POOL, DAM, SPILLWAY" are those that will be impacted by the proposed reservoir; those identified as "OUTSIDE CP, DAM, SPILL are located outside the direct impact or proposed inundation zone.

TABLE A-2: COMPREHENSIVE LISTING OF ON-CHANNEL PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

				FIELD
ID_NAME	ACRES	CLASSIFICATION	LOCATION	ASSESSED
OCP-1	0.23	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	
OCP-2	1.39	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-3	1.25	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-4	1.34	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-5	0.92	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-6	0.43	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-7	0.30	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-8	0.89	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-9	0.29	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-10	2.89	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-11	0.26	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-12	1.08	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-13	2.02	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-14	0.66	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	
OCP-15	0.04	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	
OCP-16	23.80	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-17	7.98	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-18	0.28	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-19	0.35	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	YES
OCP-20	0.36	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-21	0.77	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-22	0.04	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-23	2.44	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	YES
OCP-24	2.73	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-25	0.09	ON-CHANNEL	CONSERVATION POOL, DAM, SPILLWAY	
OCP-26	1.44	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	
OCP-27	0.67	ON-CHANNEL	OUTSIDE CP, DAM, SPILLWAY	

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TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-1	5749.93289366662	0.13	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-2	14776.10593564570	0.34	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-3	6084.60531711844	0.14	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-4	7667.42748722571	0.18	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-5	5445.17498596262	0.13	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-6	44374.52643744630	1.02	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-7	44067.57979549830	1.01	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-8	65287.76828248820	1.50	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-9	5363.57710456971	0.12	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-10	7795.15740680175	0.18	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-11	2643.19015284152	0.06	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-12	5226.20293474051	0.12	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-13	41168.29833695940	0.95	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-14	5477.45276976329	0.13	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-15	12659.92091193530	0.29	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-16	7330.57549689765	0.17	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-17	24395.24800907620	0.56	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-18	27391.15975638290	0.63	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-19	52907.92946536180	1.21	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-20	9902.35635071872	0.23	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-21	15111.06680104190	0.35	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-22	46527.35755966390	1.07	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-23	797.58196692705	0.02	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-24	8495.21629000281	0.20	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-25	6549.82883570092	0.15	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-26	4559.62026730517	0.10	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-27	3521.52381836461	0.08	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-28	2166.55304437921	0.05	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-29	3035.48077934727	0.07	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-30	61766.50101570330	1.42	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-31	10336.68453382850	0.24	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-32	12104.72091771350	0.28	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-33	5710.68774594861	0.13	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-34	12279.67661202560	0.28	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-35	14643.16593454710	0.34	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-36	14385.73938026280	0.33	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP37	55021.50954727790	1.26	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-38	20590.62828086940	0.47	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-39	19561.69056842070	0.45	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-40	6455.81216071296	0.15	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-41	17048.07932788080	0.39	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-42	14969.51168506640	0.34	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-43	36354.11922479710	0.83	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-44	21445.17359571030	0.49	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-45	9180.99893449469	0.21	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-46	1103.39855550765	0.03	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-47	19170.67856177910	0.44	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-48	2299.15519237406	0.05	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-49	85001.84472518930	1.95	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-50	4137.24645104530	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-51	6348.52350473545	0.15	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-52	3863.23936248110	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-53	9630.02998032100	0.22	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-54	4658.89157283163	0.11	UPLAND	OUTSIDE CP, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

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					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-55	3936.40216217252	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-56	8199.42546201255	0.19	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-57	6845.73533303709	0.16	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-58	20274.16587430800	0.47	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-59	3183.47904889830	0.07	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-60	10623.76889474000	0.24	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-61	2653.67452166423	0.06	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-62	5787.51623979779	0.13	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-63	11898.73175653820	0.27	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-64	18118.49831442040	0.42	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-65	75580.65070826670	1.74	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-66	12613.58579890770	0.29	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-67	139318.06422272500	3.20	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-68	30755.94007771960	0.71	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-69	118404.81492646900	2.72	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-70	141835.79253150500	3.26	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-71	21789.36291595860	0.50	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-72	30024.69678235630	0.69	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-73	17143.04601182540	0.39	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-74	20834.37788618280	0.48	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-75	16576.56575557130	0.38	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-76	9010.26669794560	0.21	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-77	8454.17375371381	0.19	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-78	18478.28610318230	0.42	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-79	55001.29285508770	1.26	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-80	40401.63517133800	0.93	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-81	24265.07158389500	0.56	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-82	18550.96426231230	0.43	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-83	18478.47302847120	0.42	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-84	5844.00883298352	0.13	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-85	10355.89554570770	0.24	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-86	5170.39830100300	0.12	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-87	5401.63816966830	0.12	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-88	15936.36359196550	0.37	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-89	45857.66978273610	1.05	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-90	10965.39600756480	0.25	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-91	36241.31267953610	0.83	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-92	3786.61994385967	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-93	17185.08394543650	0.39	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-94	11604.22947008530	0.27	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-95	11891.00590485030	0.27	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-96	17665.12722604030	0.41	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-97	10728.32036732410	0.25	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-98	8289.64952167681	0.19	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-99	39083.10400375720	0.90	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-100	8347.63399821775	0.19	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-101	5266.05464633046	0.12	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-102	4354.98639745040	0.10	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-103	4021.79587792762	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-104	4798.10881939080	0.11	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-105	3459.42001635279	0.08	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-106	11768.16047437200	0.27	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-107	6105.62331010071	0.14	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-108	2832.77661245773	0.07	UPLAND	OUTSIDE CP, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-109	7052.05191829185	0.16	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-110	8194.71238320045	0.19	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-111	4110.84931272125	0.09	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-112	4810.11951610585	0.11	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-113	7424.49241898459	0.17	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-114	6283.01295944616	0.14	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-115	5345.78404822542	0.12	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-116	23374.28116171110	0.54	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-117	111064.03917599500	2.55	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-118	6343.53955999261	0.15	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-119	1397.41525163971	0.03	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-120	3897.22299127545	0.09	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-121	5807.40017322037	0.13	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-122	15656.61709553440	0.36	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-123	20356.44269192610	0.47	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-124	16667.22191647740	0.38	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-125	12752.32958181670	0.29	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-126	7957.79173974480	0.18	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-127	12810.60518978430	0.29	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-128	17230.78086344470	0.40	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-129	10874.46351666530	0.25	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-130	113763.45818804600	2.61	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-131	3247.51574886974	0.07	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-132	37105.84872792770	0.85	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-133	4862.23489564972	0.11	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-134	7698.36699848759	0.18	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-135	20985.62569117680	0.48	UPLAND	OUTSIDE CP, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-136	17021.25520376360	0.39	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-137	6550.40534372715	0.15	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-138	10047.14439513660	0.23	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-139	9039.54669314232	0.21	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-140	13637.30271152800	0.31	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-141	22417.53855222470	0.51	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-142	10207.16536974260	0.23	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-143	7439.02116688766	0.17	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-144	5119.84231584078	0.12	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-145	16469.97398403580	0.38	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-146	14736.25650770240	0.34	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-147	6047.08084001727	0.14	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-148	2668.79230187115	0.06	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-149	8437.40580385029	0.19	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-150	6289.61301144133	0.14	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-151	4888.92101482900	0.11	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-152	35600.09409247170	0.82	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-153	27720.25236598170	0.64	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-154	7160.29294855238	0.16	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-155	53881.45848935600	1.24	UPLAND	OUTSIDE CP, DAM, SPILLWAY	YES
UP-156	3939.21043664444	0.09	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-157	20751.92739753650	0.48	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-158	9985.24540552999	0.23	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-159	3736.21591783283	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-160	29329.89575577390	0.67	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-161	3073.94361451410	0.07	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-162	8281.96735182690	0.19	UPLAND	OUTSIDE CP, DAM, SPILLWAY	

TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-163	9835.77990840870	0.23	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-164	19545.81027028590	0.45	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-165	6542.04904715384	0.15	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-166	21269.03972328630	0.49	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-167	10652.93861573870	0.24	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-168	9642.29917074536	0.22	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-169	8663.92643204764	0.20	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-170	9964.32312719102	0.23	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-171	19247.05821770120	0.44	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-172	2044.50787395755	0.05	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-173	6372.06907281436	0.15	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-174	6909.98575295682	0.16	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-175	3134.09413745102	0.07	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-176	21212.67650165310	0.49	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-177	26594.00323073780	0.61	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-178	14828.91422201880	0.34	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-179	15976.15008071030	0.37	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-180	84402.45109275030	1.94	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-181	6217.56364225019	0.14	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-182	7702.00377304686	0.18	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-183	3914.01837309213	0.09	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-184	3606.38512229550	0.08	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-185	7021.77707892329	0.16	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-186	8201.61545048703	0.19	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-187	7947.64568713224	0.18	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-188	13104.04289911410	0.30	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-189	8160.57438649750	0.19	UPLAND	OUTSIDE CP, DAM, SPILLWAY	

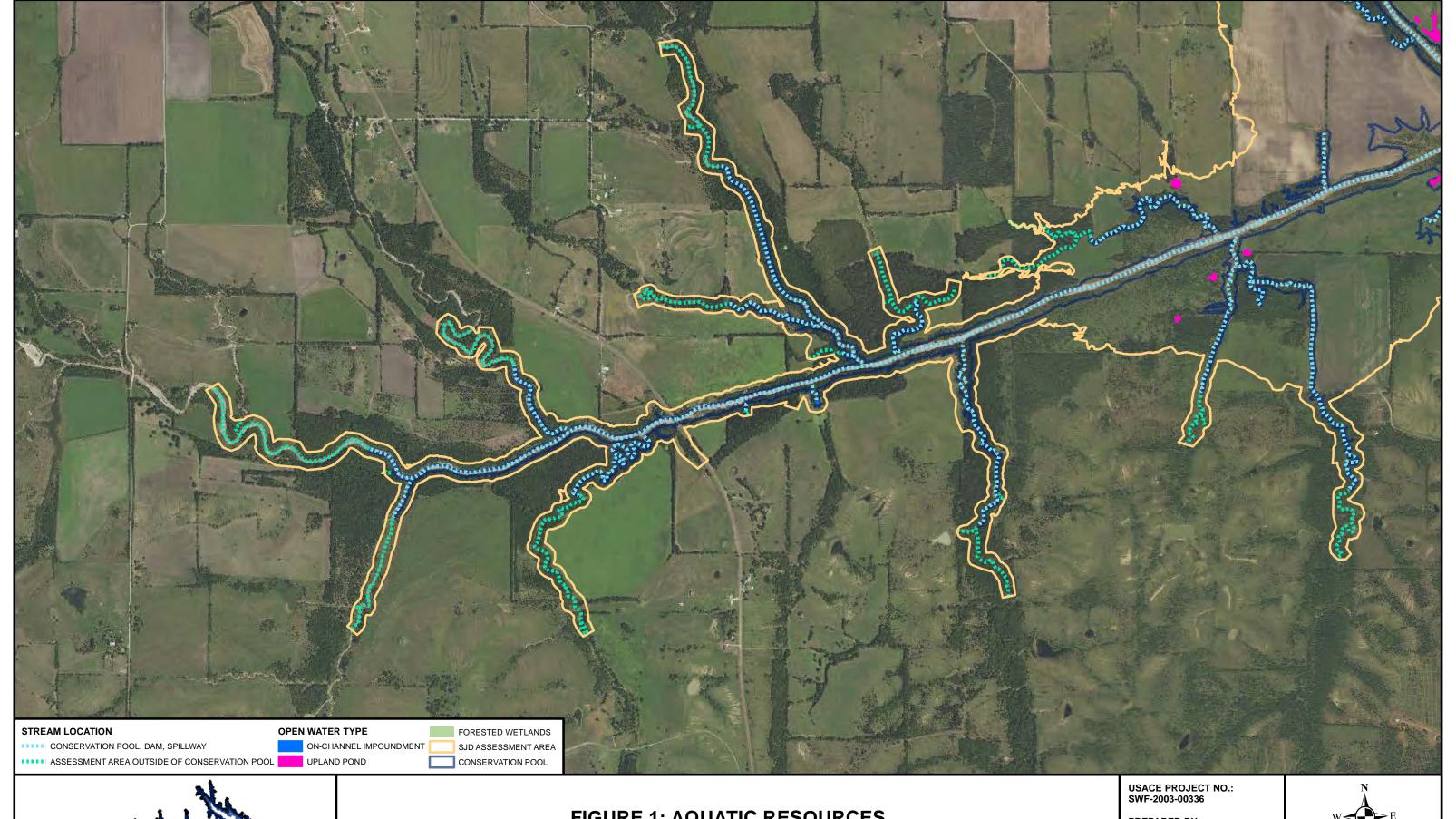
TABLE A-3: COMPREHENSIVE LISTING OF UPLAND PONDS FOR PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION ASSESSMENT AREA

					FIELD
ID_NAME	Area	ACRES	CLASSIFICATION	LOCATION	ASSESSED
UP-190	10198.50191368740	0.23	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-191	3824.14907030134	0.09	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-192	1337.50624657386	0.03	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-193	11815.25335188270	0.27	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-194	4410.15219154655	0.10	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-195	8515.65792981320	0.20	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-196	6223.09084206837	0.14	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-197	4378.14482794999	0.10	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-198	13909.68330520210	0.32	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-199	10582.61482636130	0.24	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-200	11184.30844984010	0.26	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-201	25508.96048843180	0.59	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-202	7357.88909610137	0.17	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-203	7969.55461077115	0.18	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-204	15773.49419408670	0.36	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-205	8418.02173846706	0.19	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-206	11038.13115218060	0.25	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-207	2069.01868681123	0.05	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	YES
UP-208	13112.45451321330	0.30	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-209	851.00082011049	0.02	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-210	12970.03148441680	0.30	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	
UP-211	11123.23078719850	0.26	UPLAND	OUTSIDE CP, DAM, SPILLWAY	
UP-212	18086.88422204470	0.42	UPLAND	CONSERVATION POOL, DAM, SPILLWAY	

TABLE A-4: NON-JURISDICTIONAL FORESTED WETLANDS

NAME	Acres	Location
FW-1	0.85	Embankment/Assessment Area
FW-2	0.09	Conservation Pool
FW-3	0.06	Conservation Pool
FW-4	0.06	Conservation Pool
FW-5	0.02	Conservation Pool
FW-6	0.05	Conservation Pool
FW-7	0.10	Conservation Pool
FW-8	0.01	Conservation Pool
FW-9	0.09	Conservation Pool
FW-10	0.38	Conservation Pool
FW-11	0.04	Conservation Pool
FW-12	0.39	Conservation Pool
FW-13	1.17	Conservation Pool
FW-14	0.01	Conservation Pool
FW-15	0.01	Conservation Pool
FW-16	0.03	Conservation Pool
FW-17	0.02	Conservation Pool
FW-18	0.11	Conservation Pool
FW-19	0.01	Conservation Pool
FW-20	0.03	Conservation Pool
FW-21	0.01	Conservation Pool
FW-22	0.01	Conservation Pool
FW-23	0.05	Conservation Pool
FW-24	0.04	Conservation Pool
FW-25	0.14	Conservation Pool
FW-26	0.03	Conservation Pool
TOTAL	3.80	

MAPBOOK OVERALL AQUATIC RESOURCES



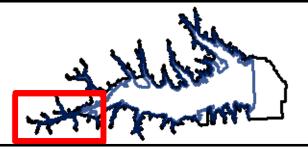


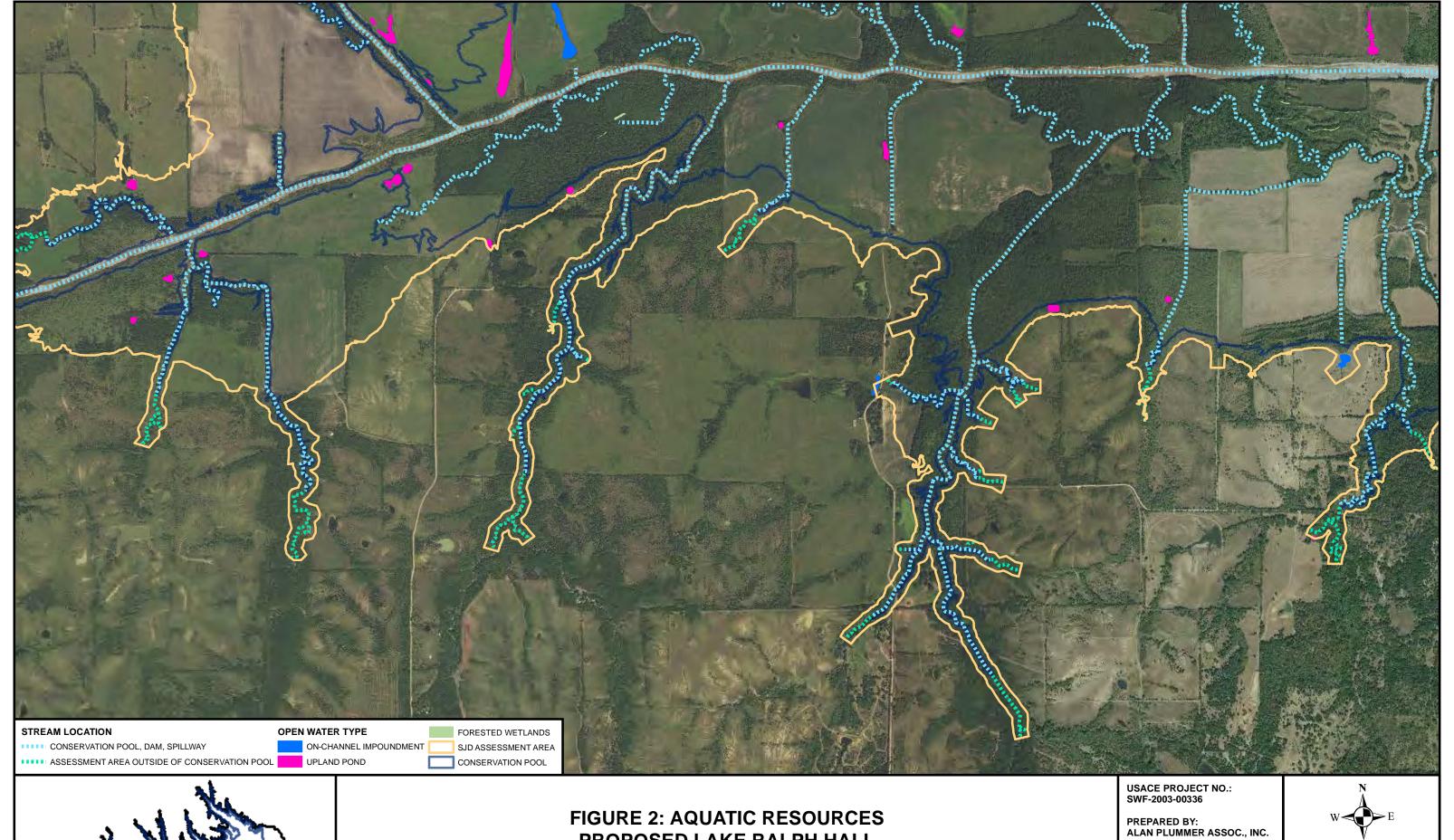
FIGURE 1: AQUATIC RESOURCES
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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Date: 6/15/2017



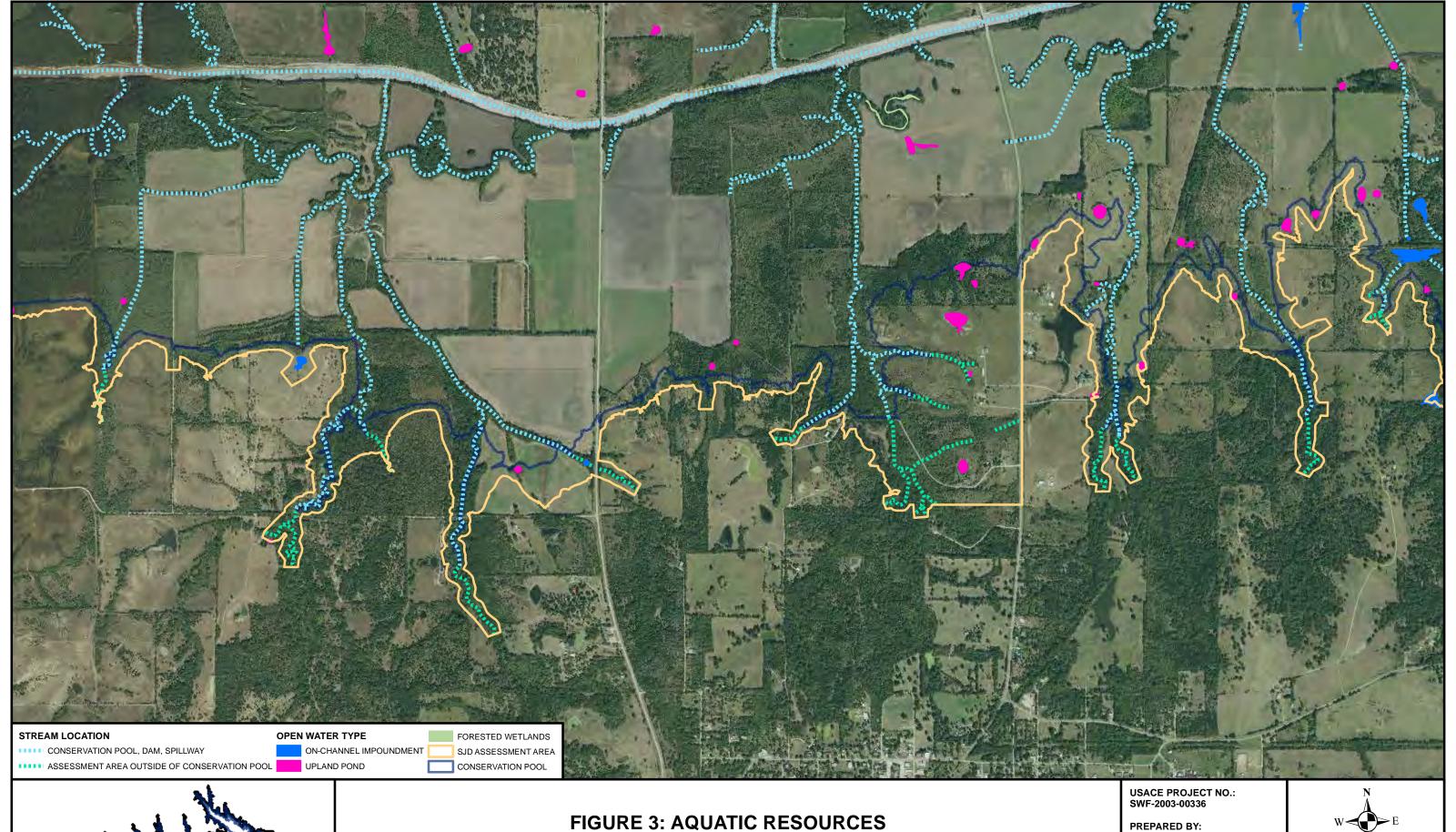
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Date: 6/15/2017



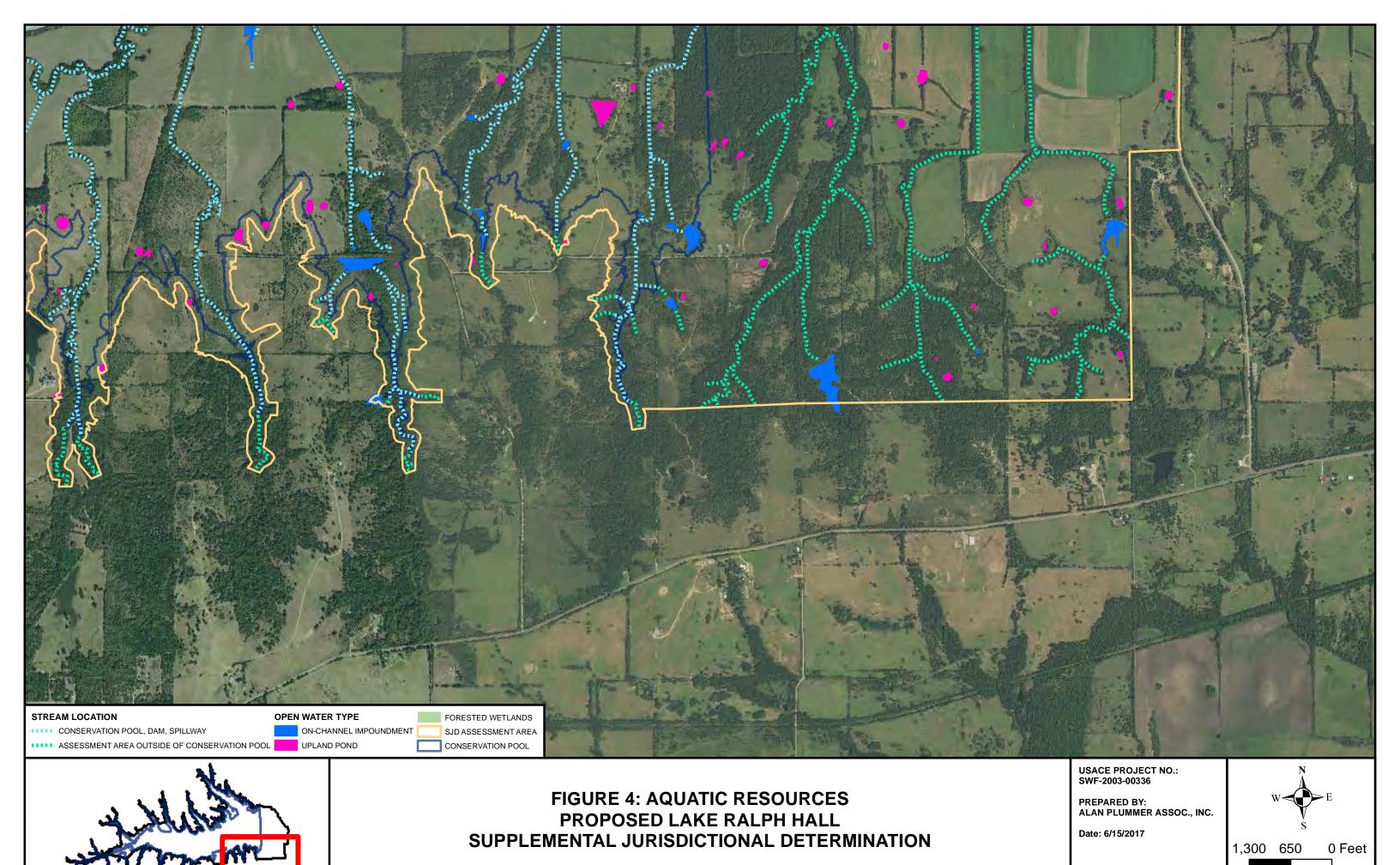
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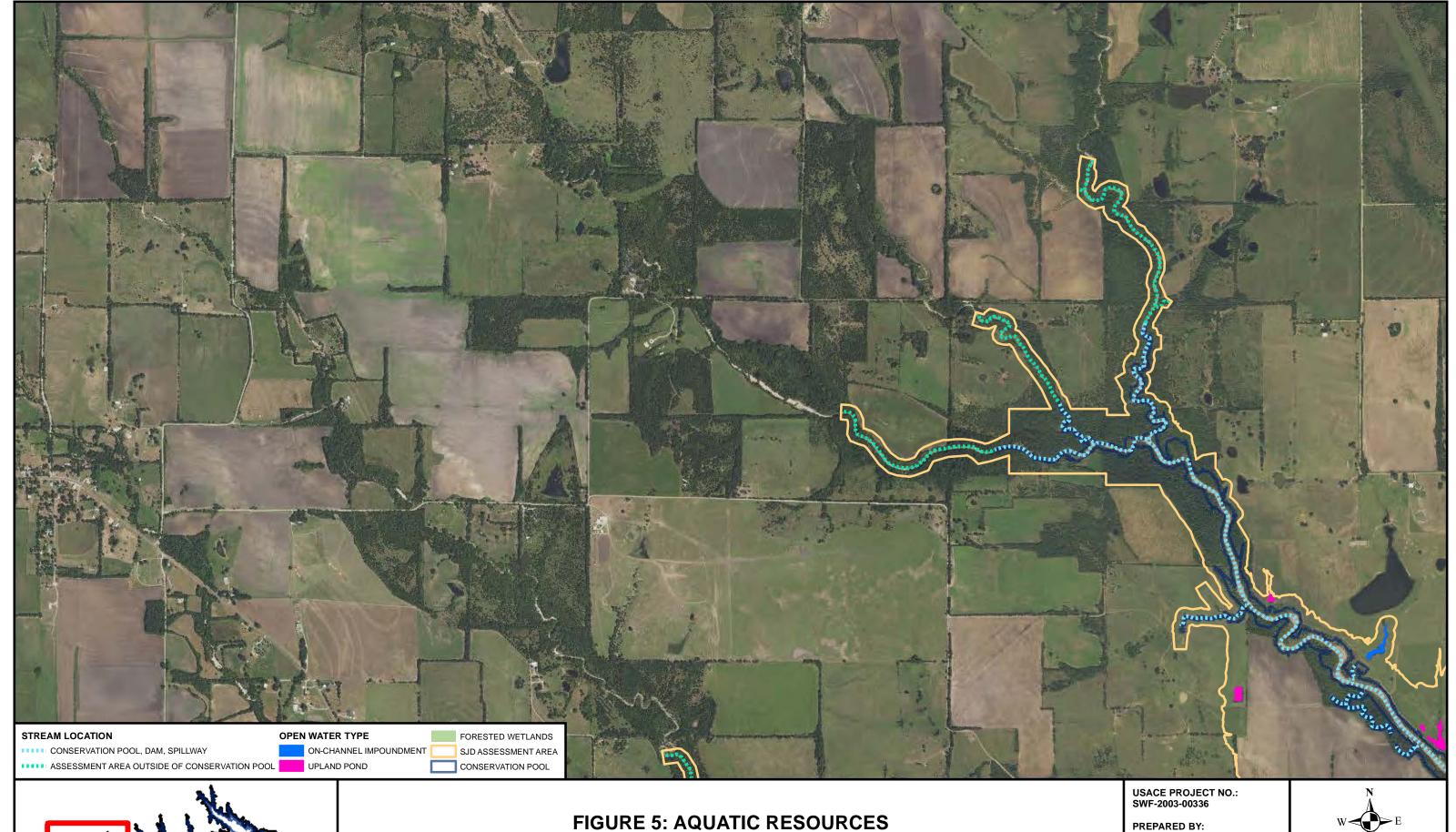


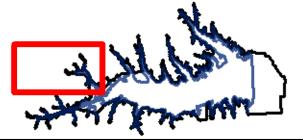


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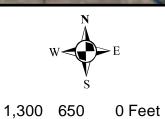


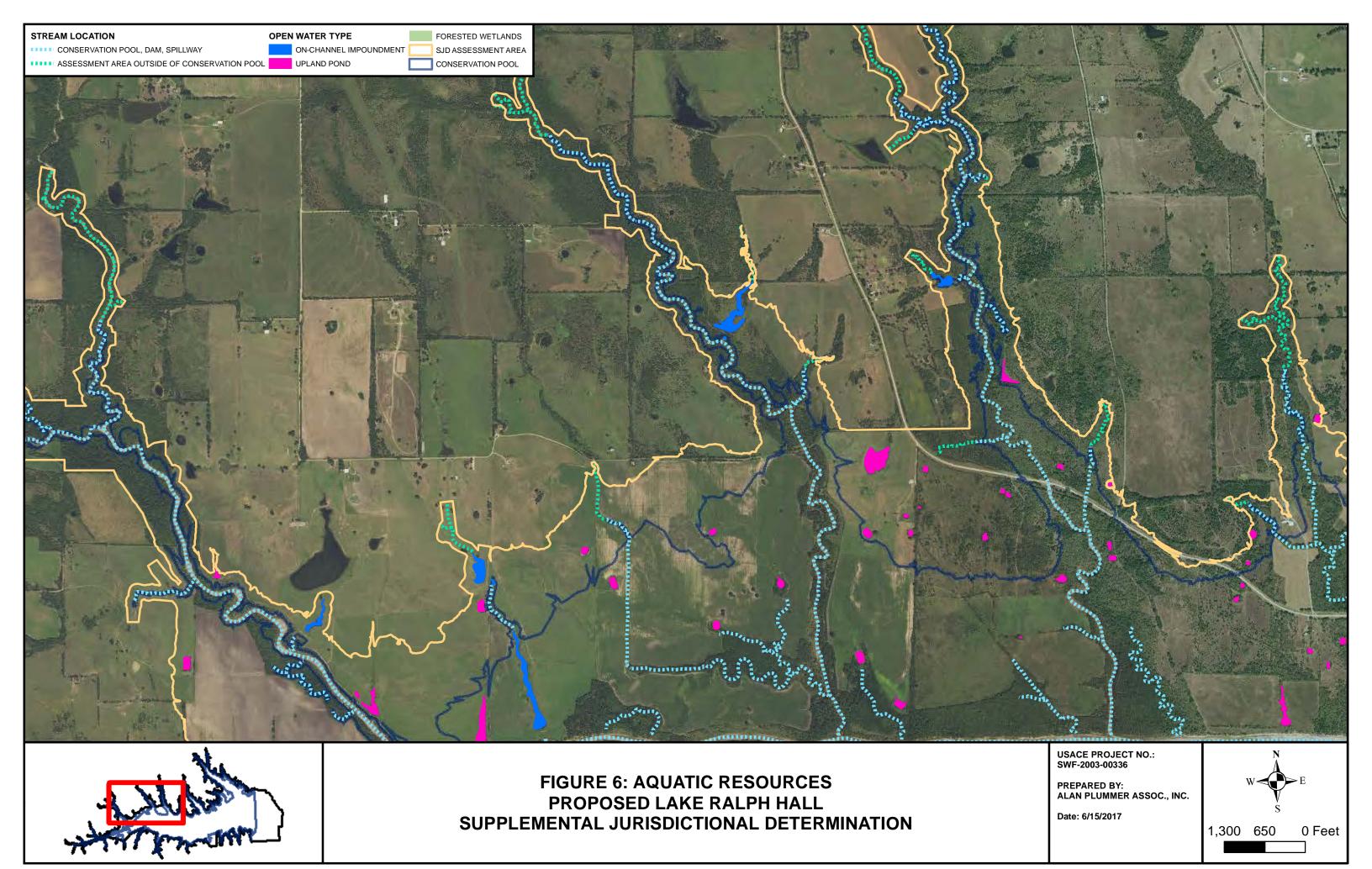


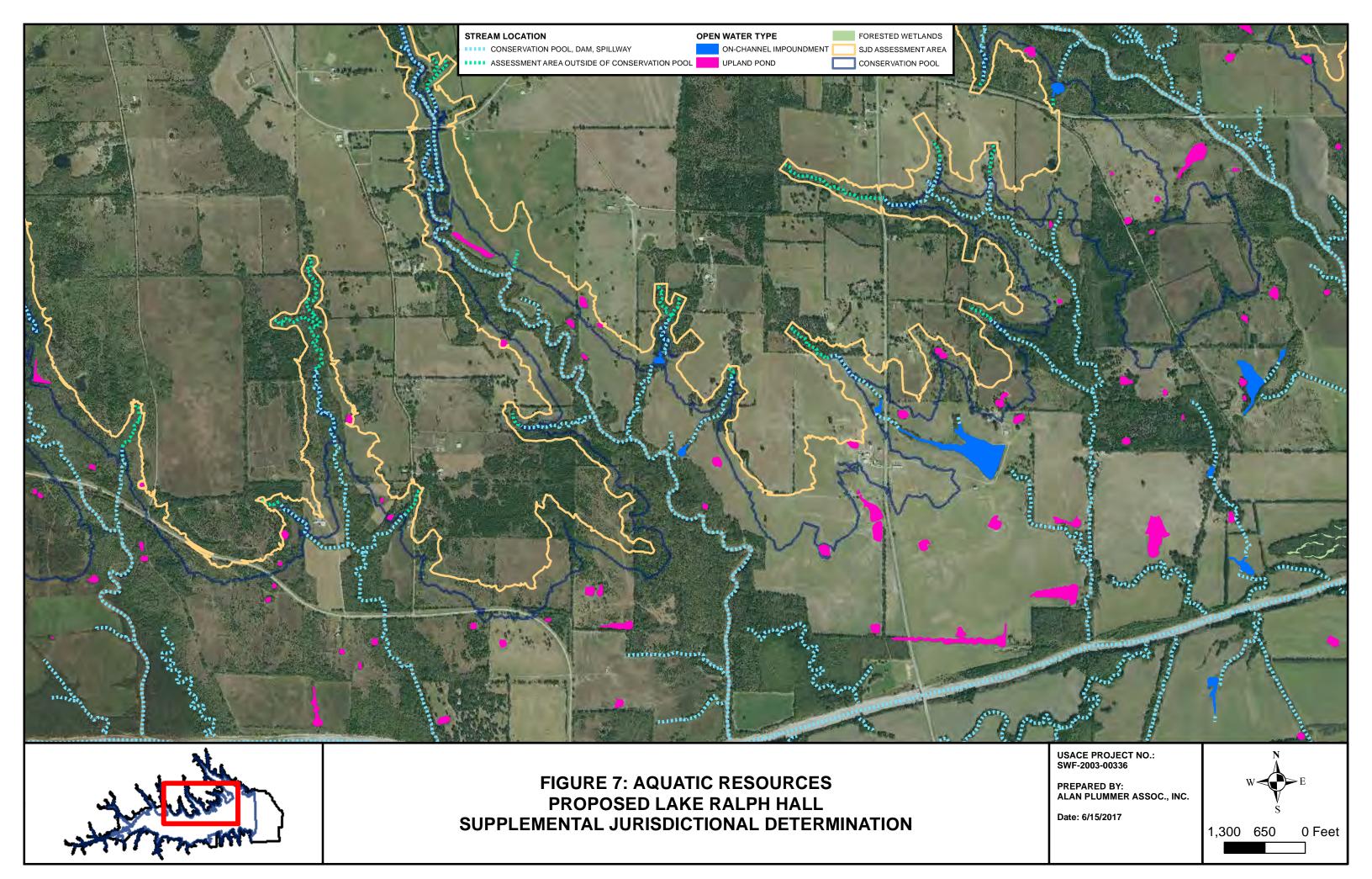


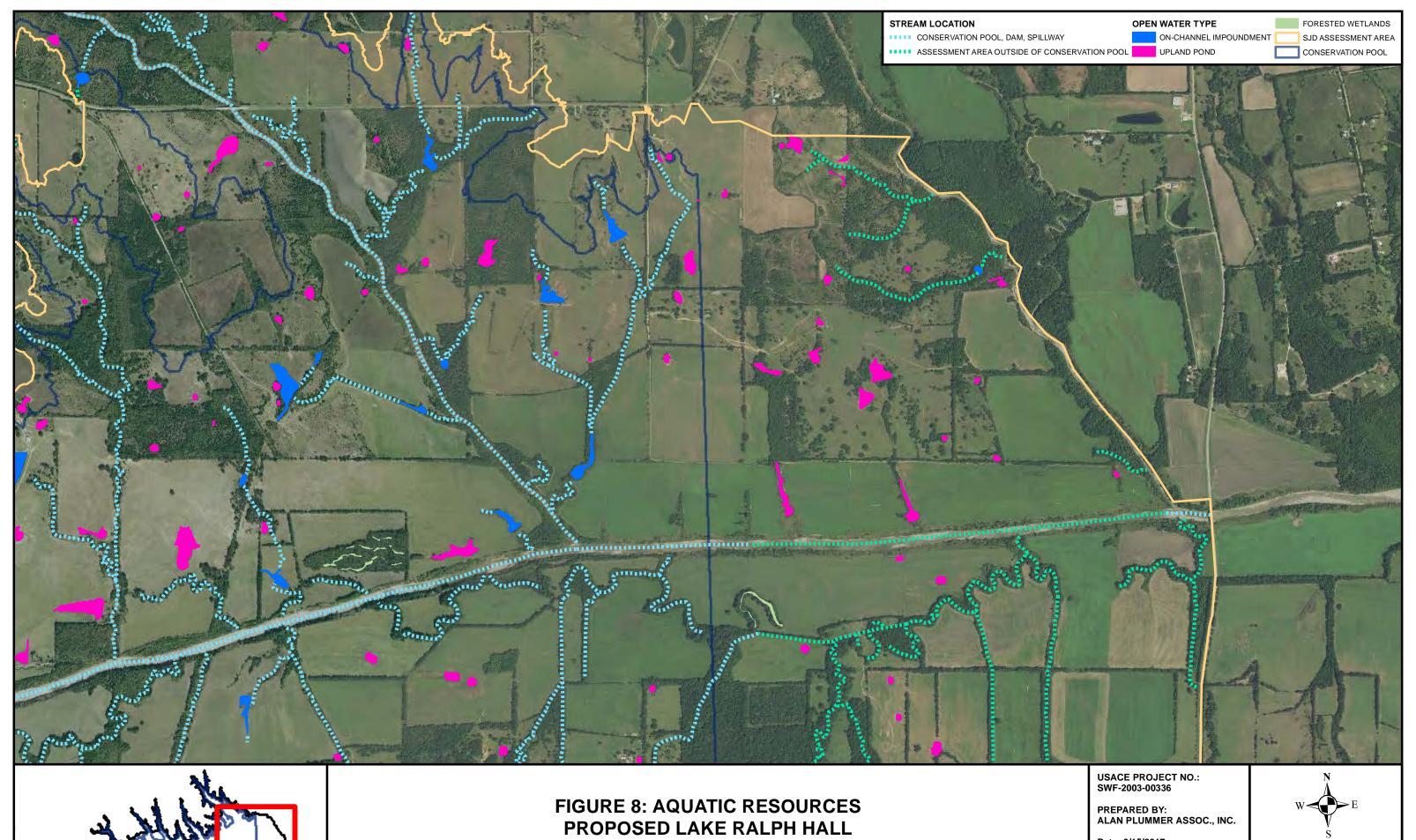


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SUPPLEMENTAL JURISDICTIONAL DETERMINATION

Date: 6/15/2017



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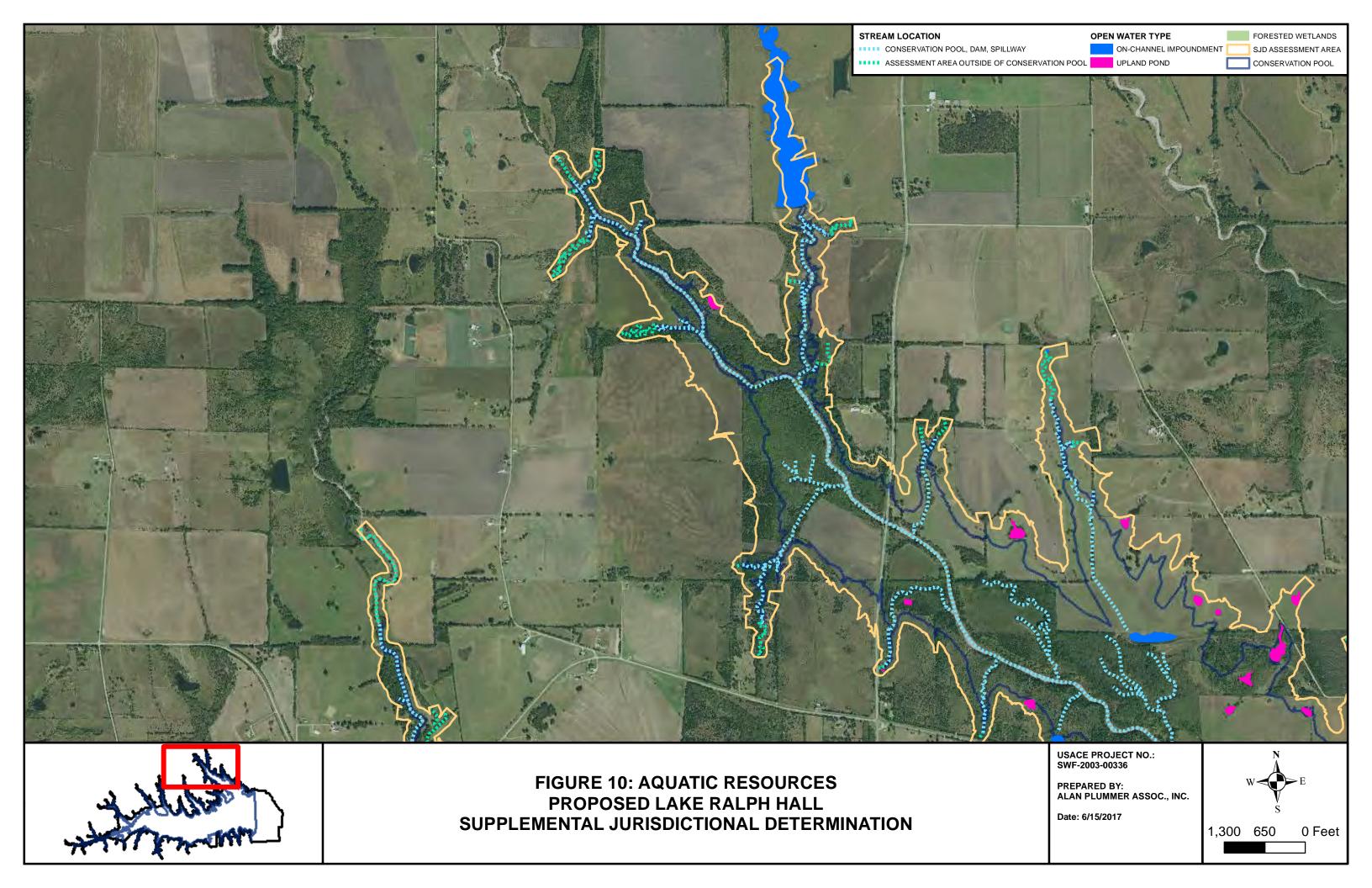
FIGURE 9: AQUATIC RESOURCES
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

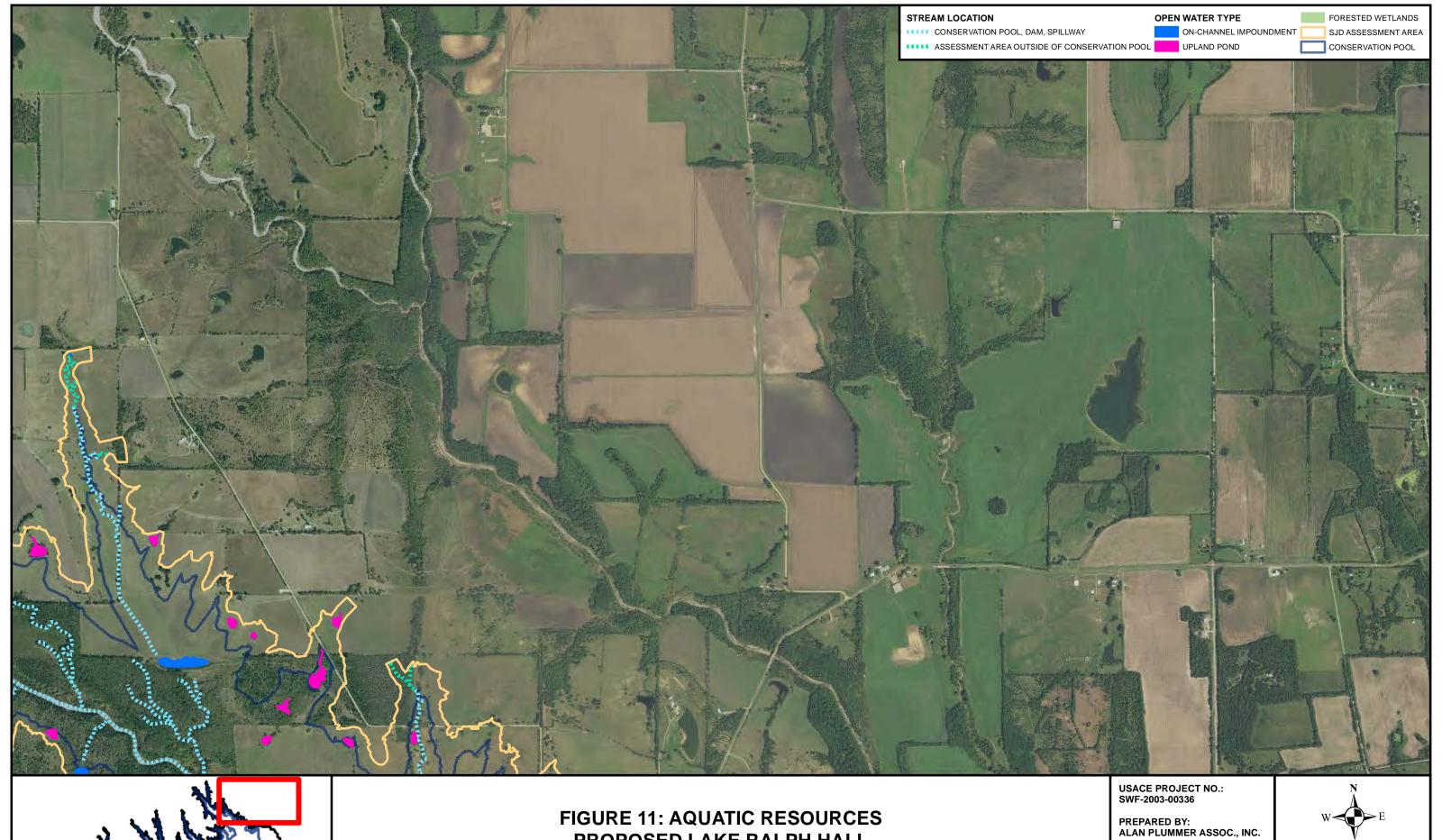
PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017



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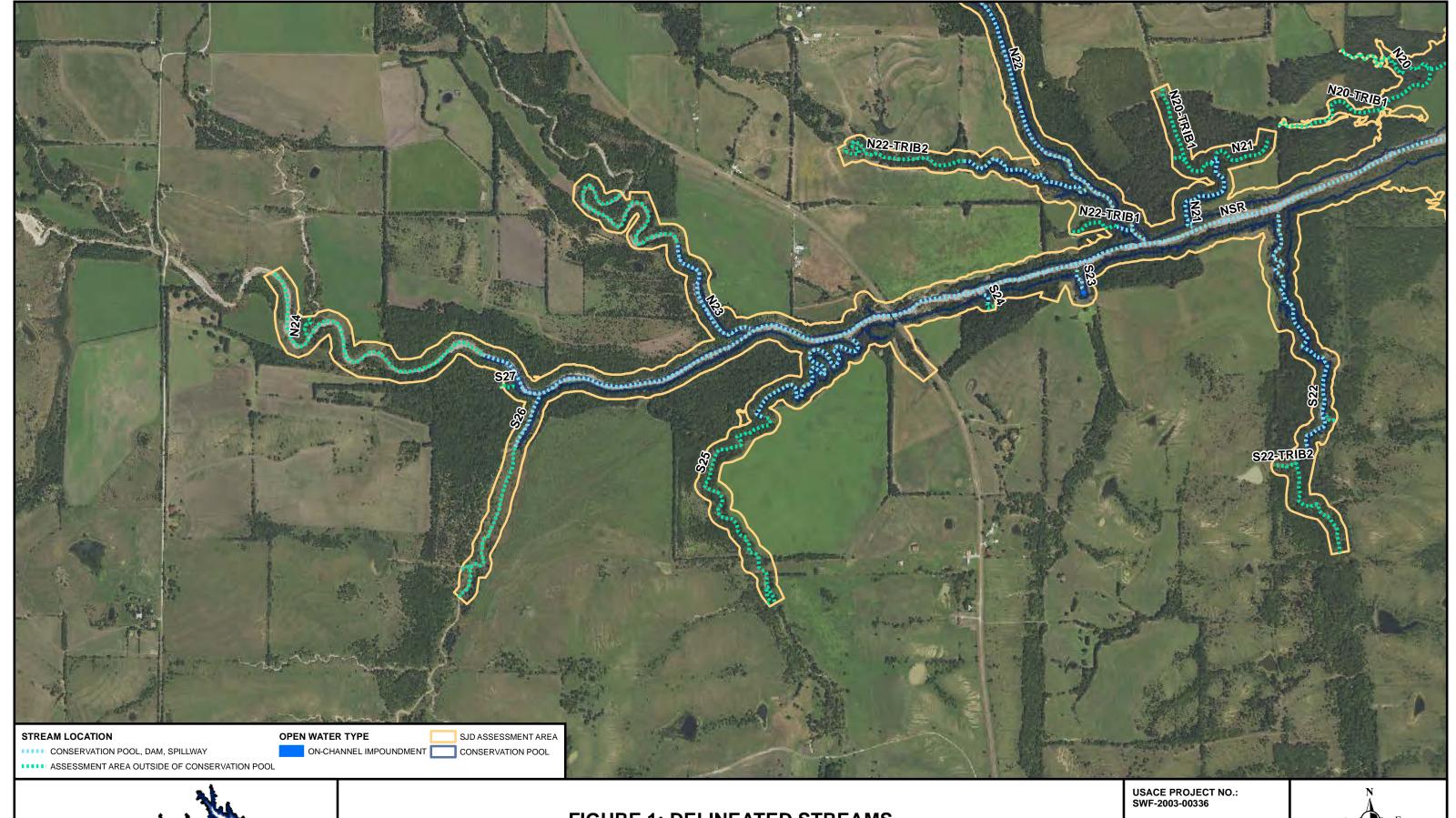


Date: 6/15/2017



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MAPBOOK DELINEATED STREAMS



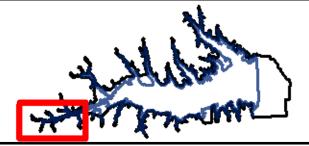
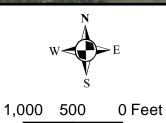


FIGURE 1: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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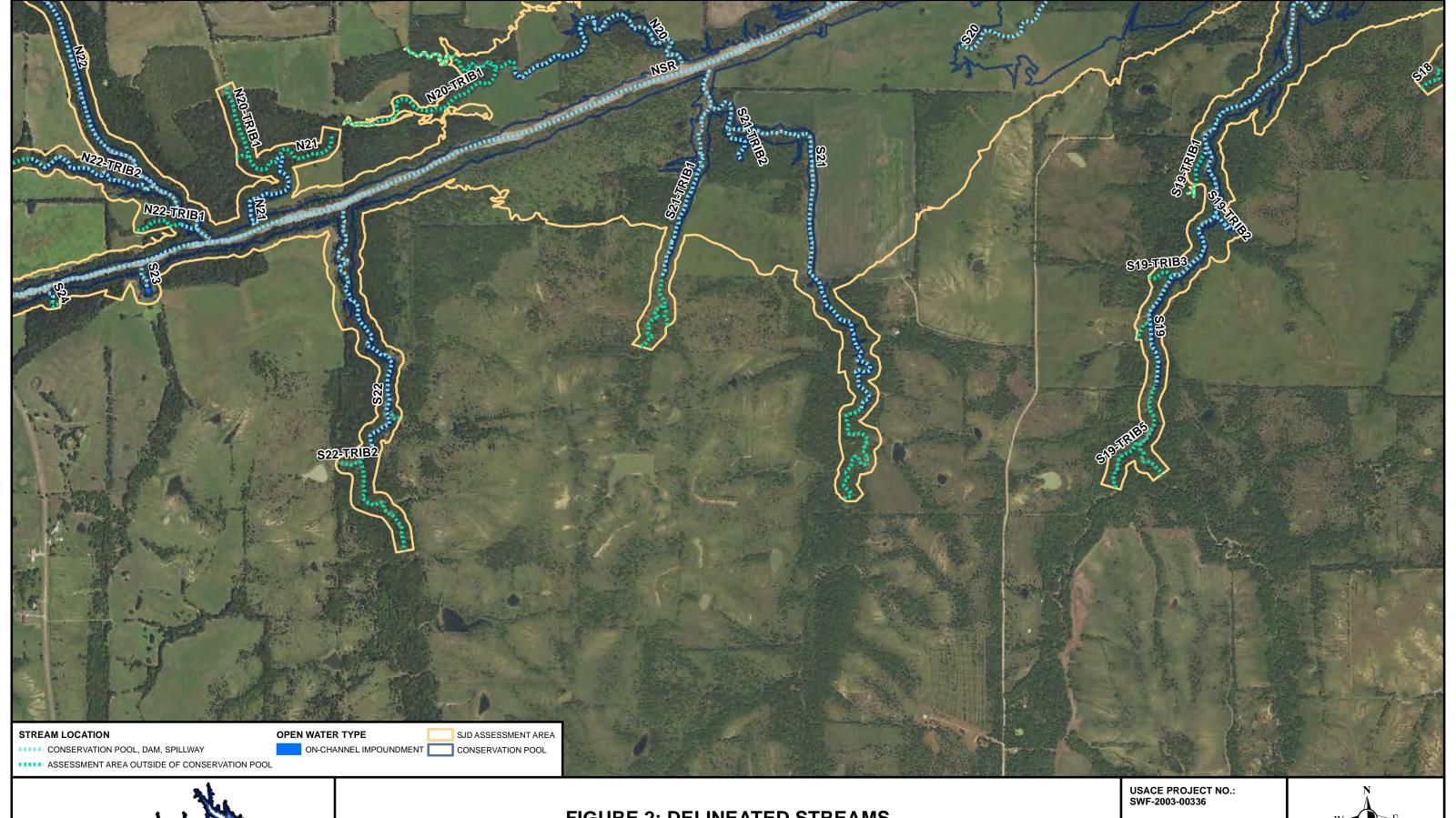
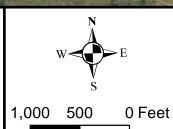
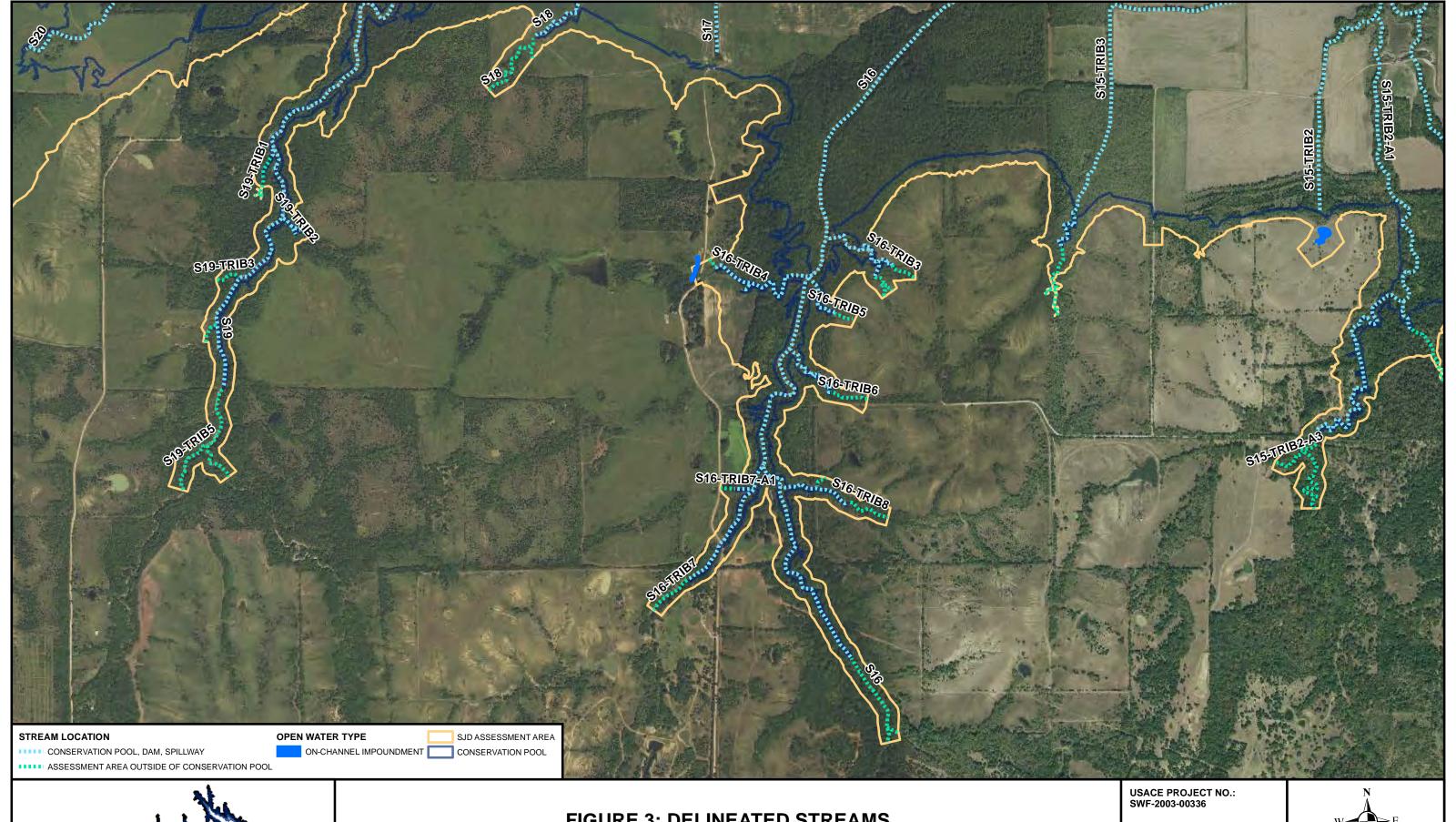




FIGURE 2: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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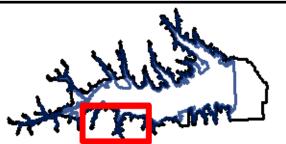
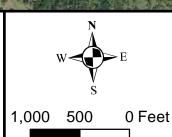
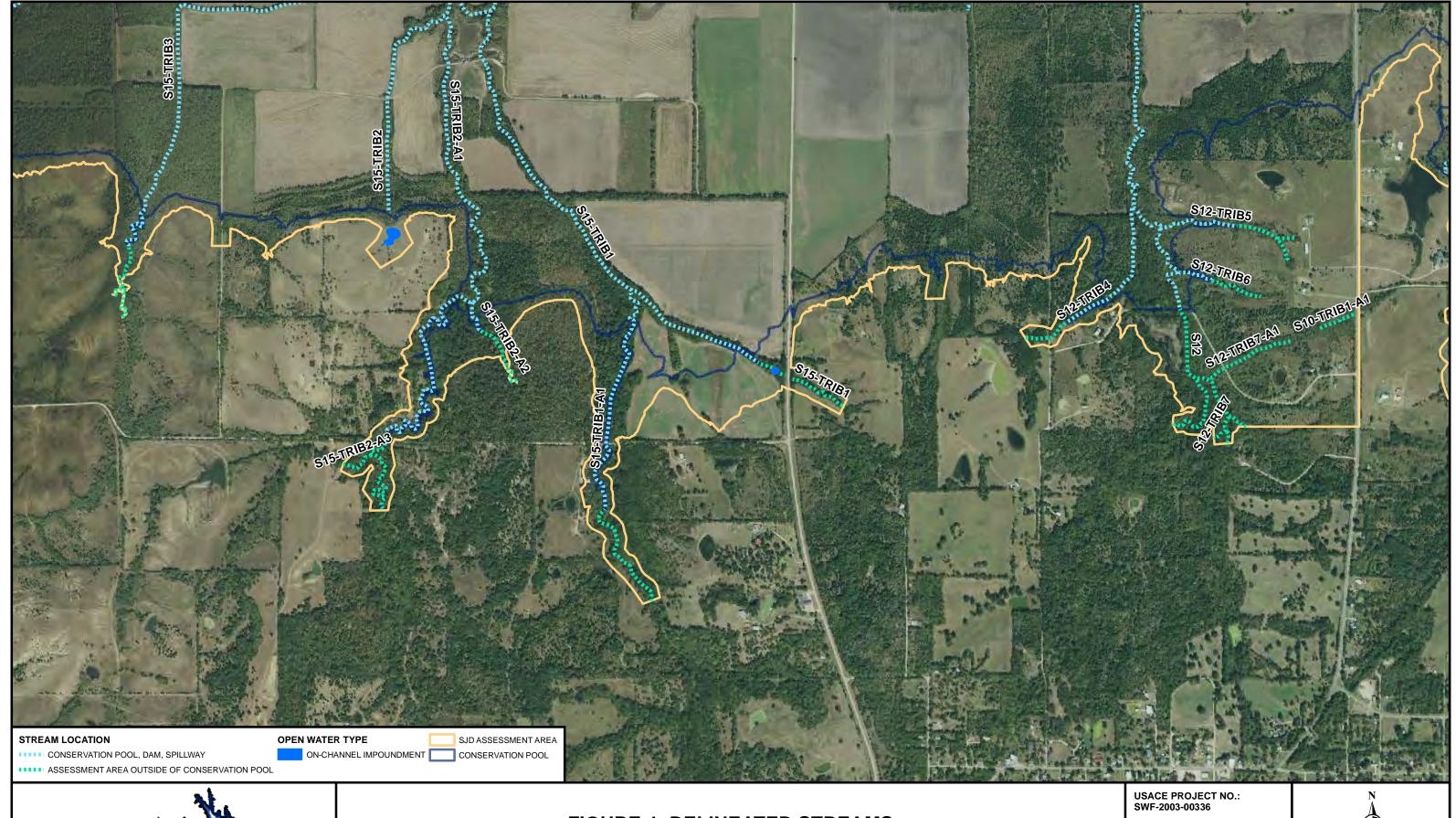


FIGURE 3: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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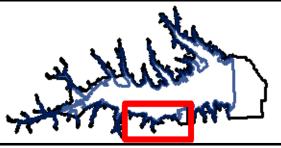
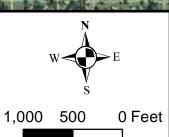


FIGURE 4: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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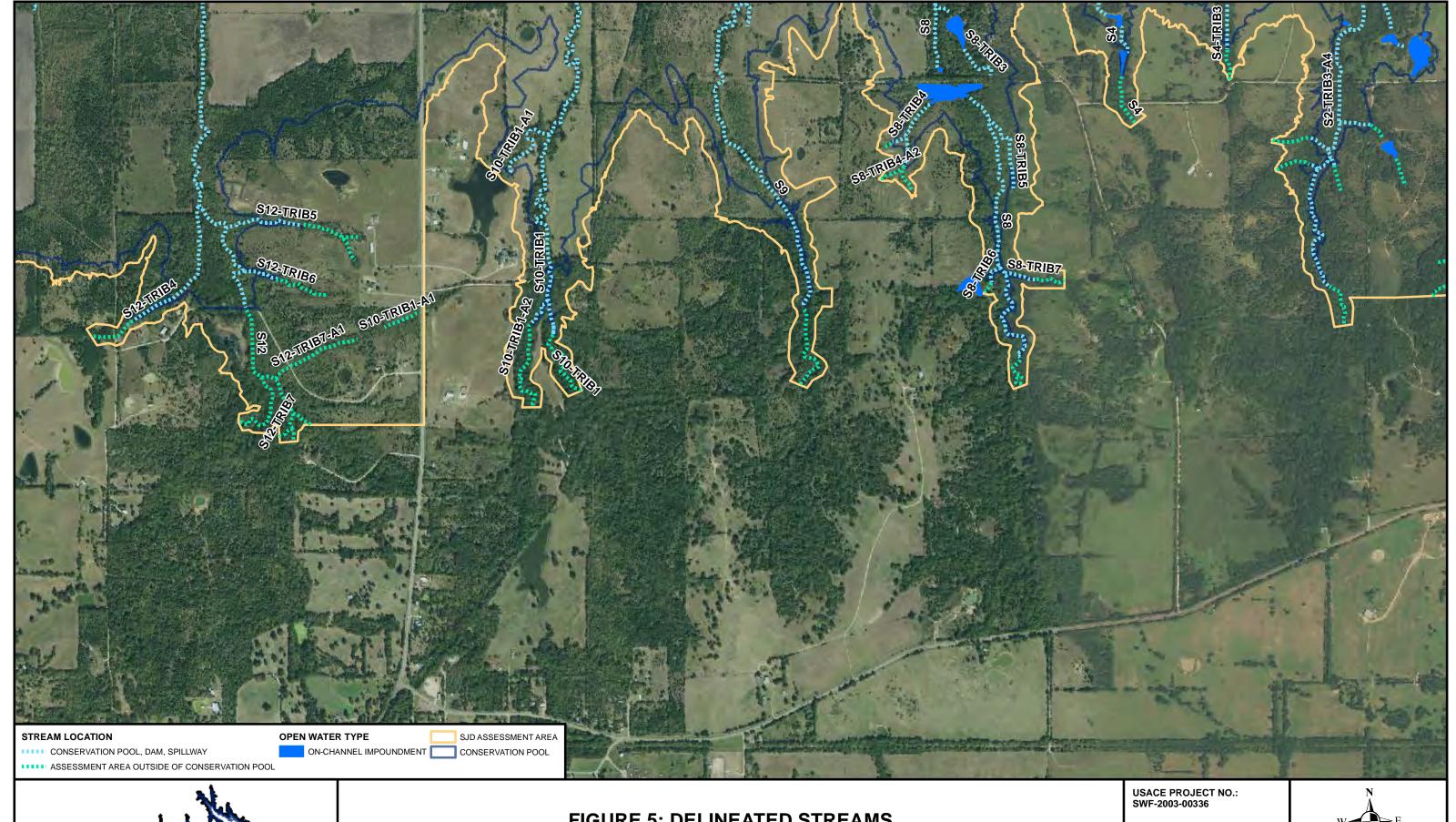
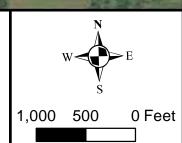
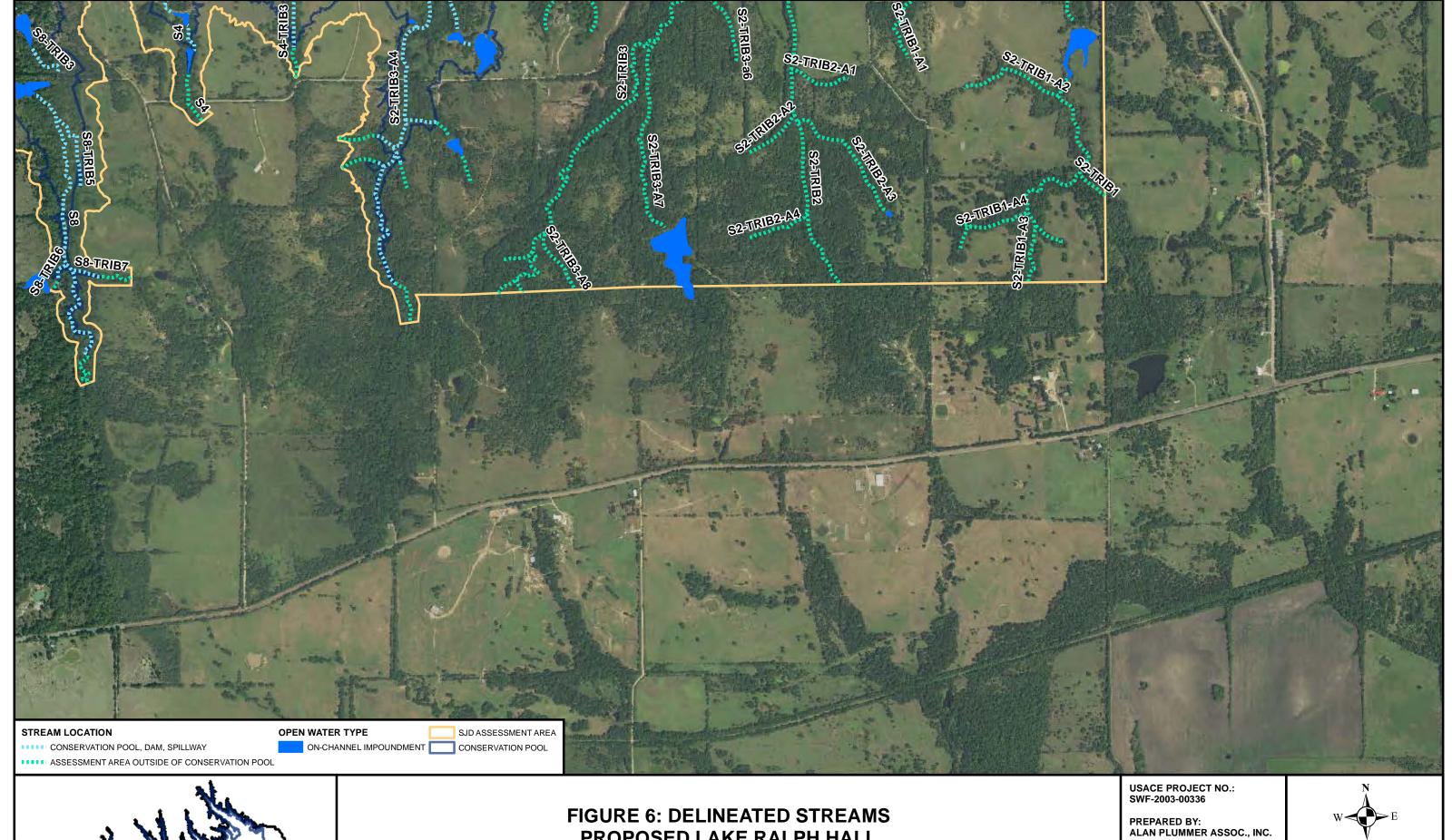




FIGURE 5: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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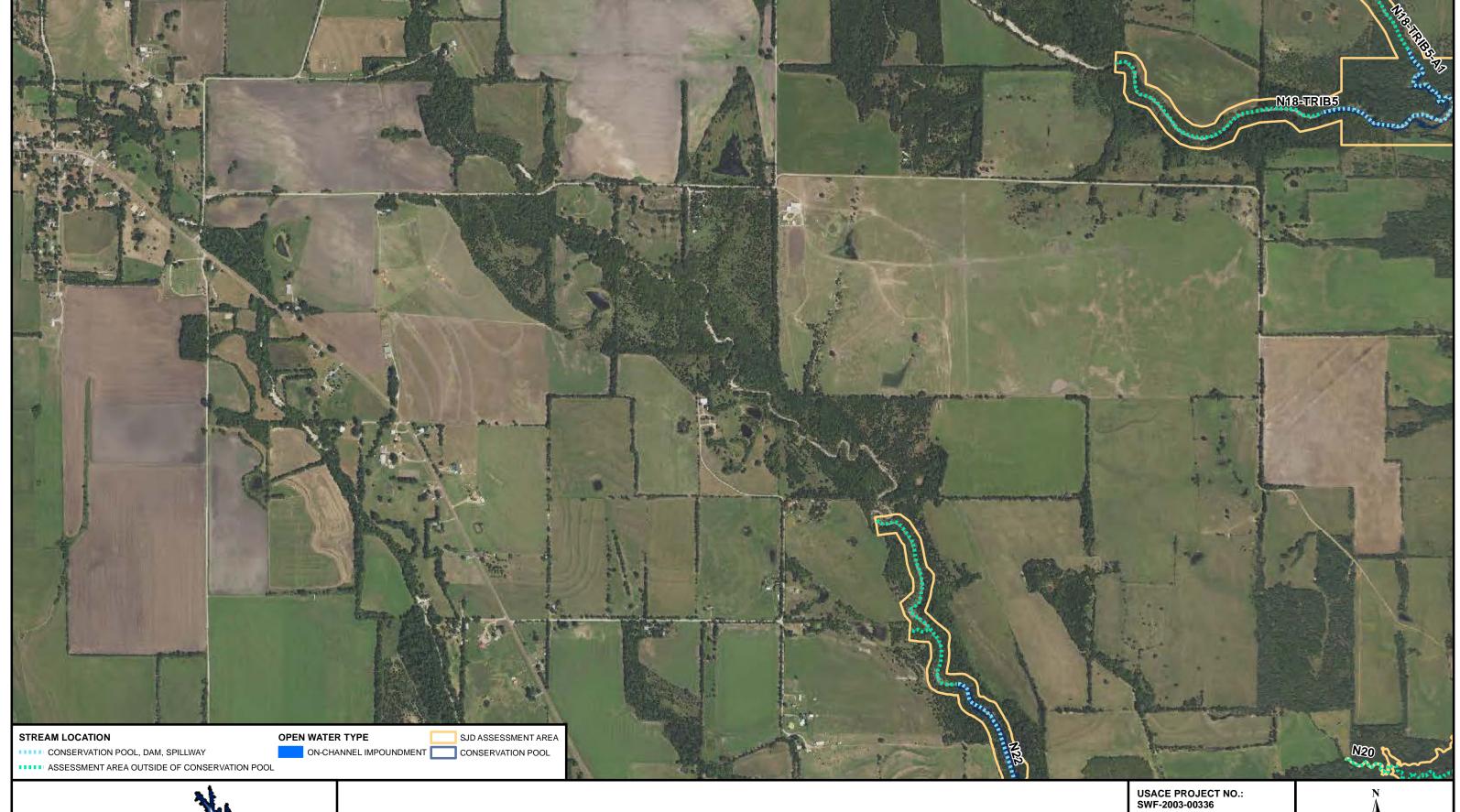




Date: 6/15/2017



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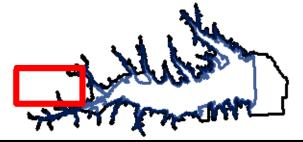
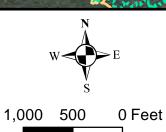
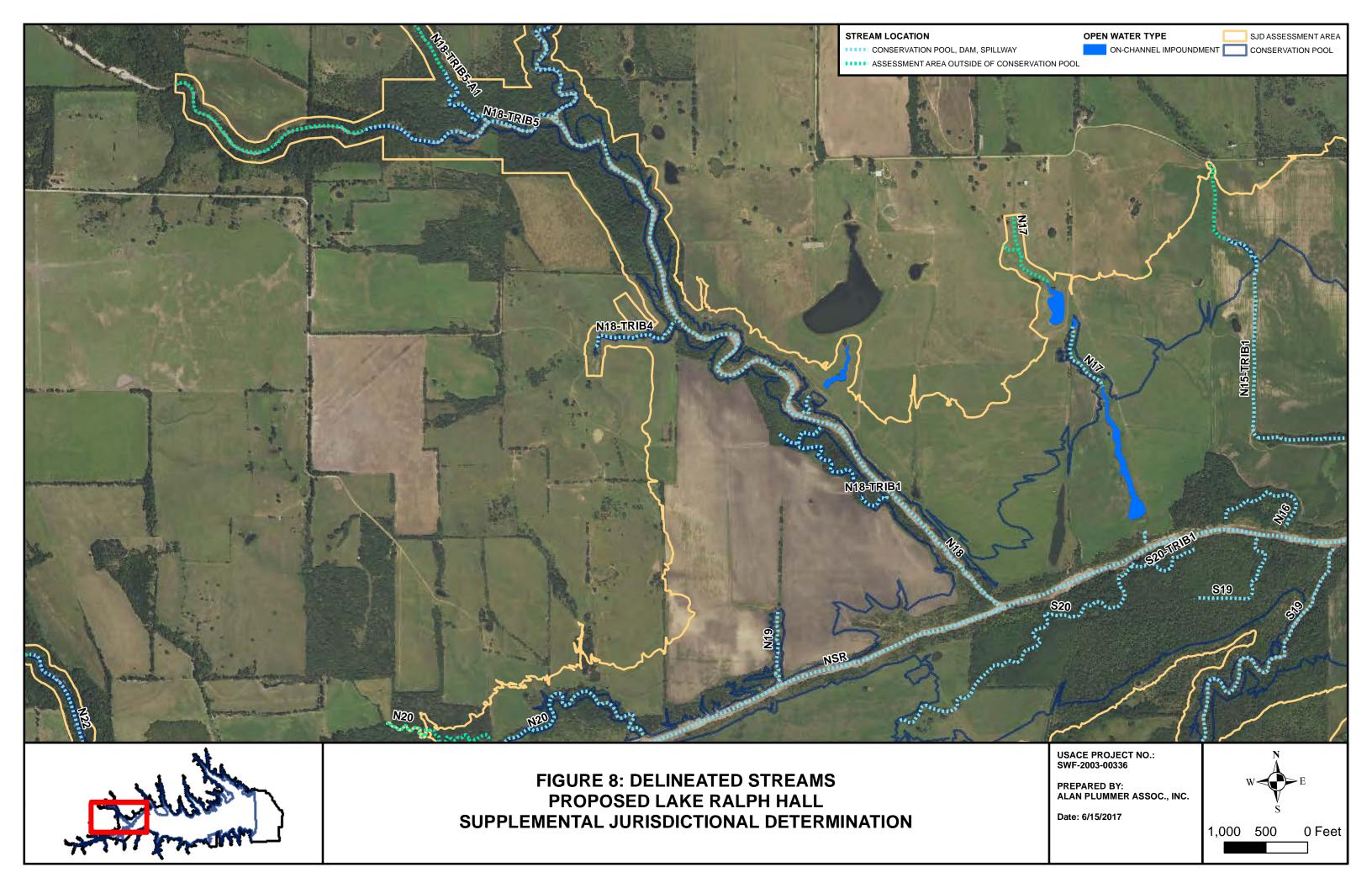
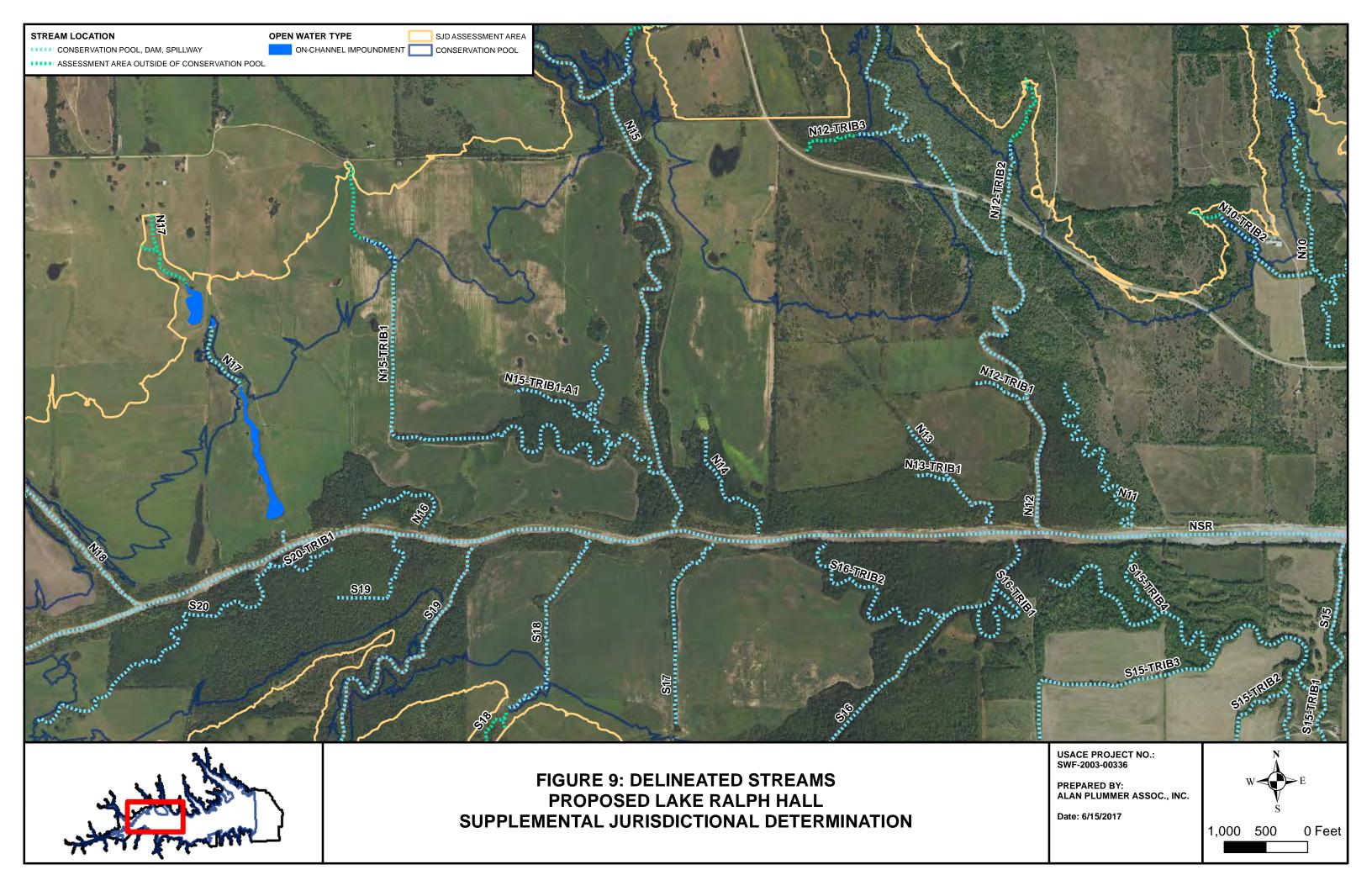


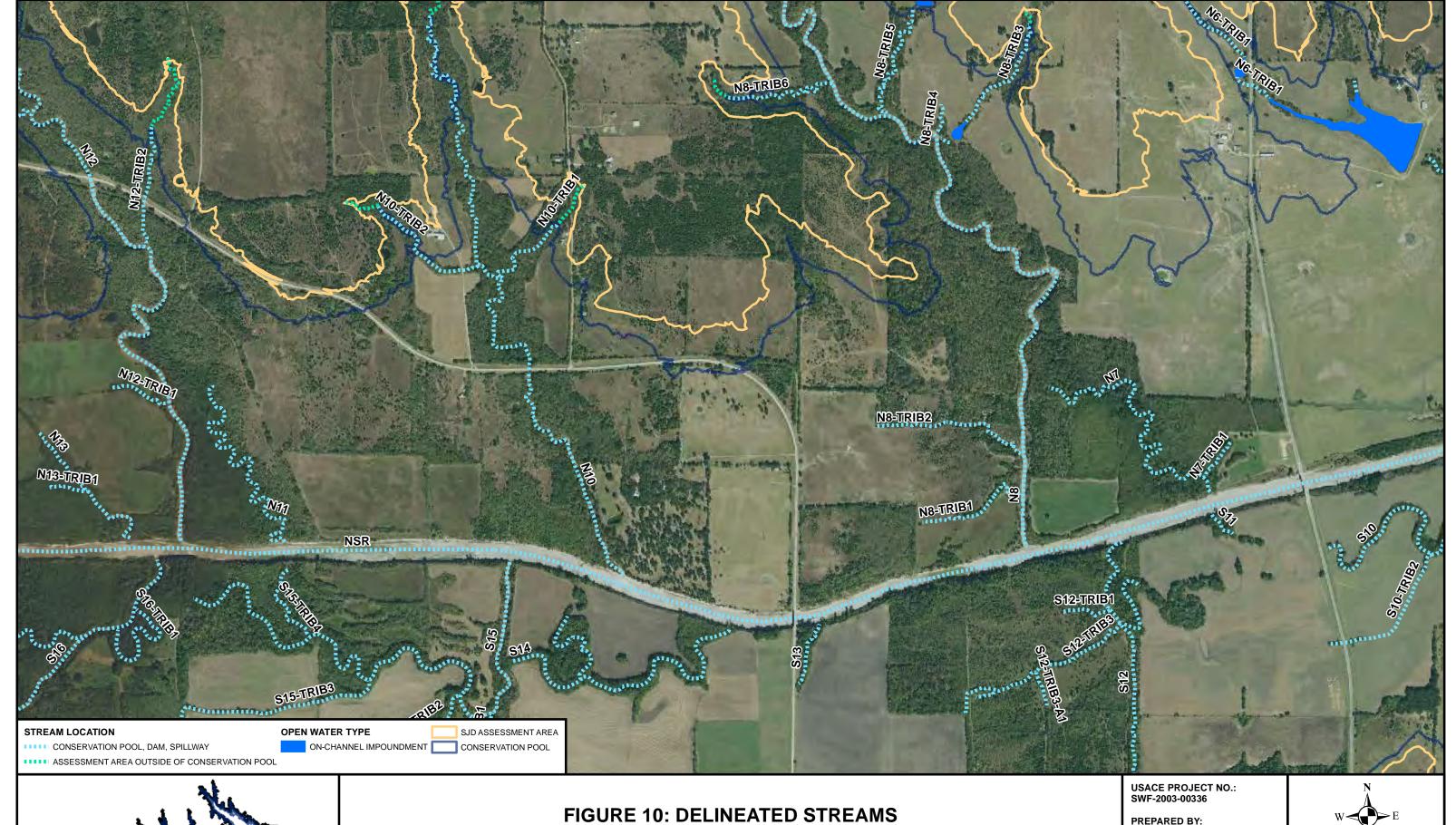
FIGURE 7: DELINEATED STREAMS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

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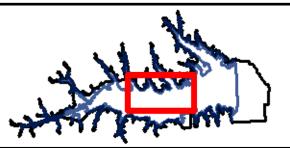
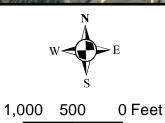
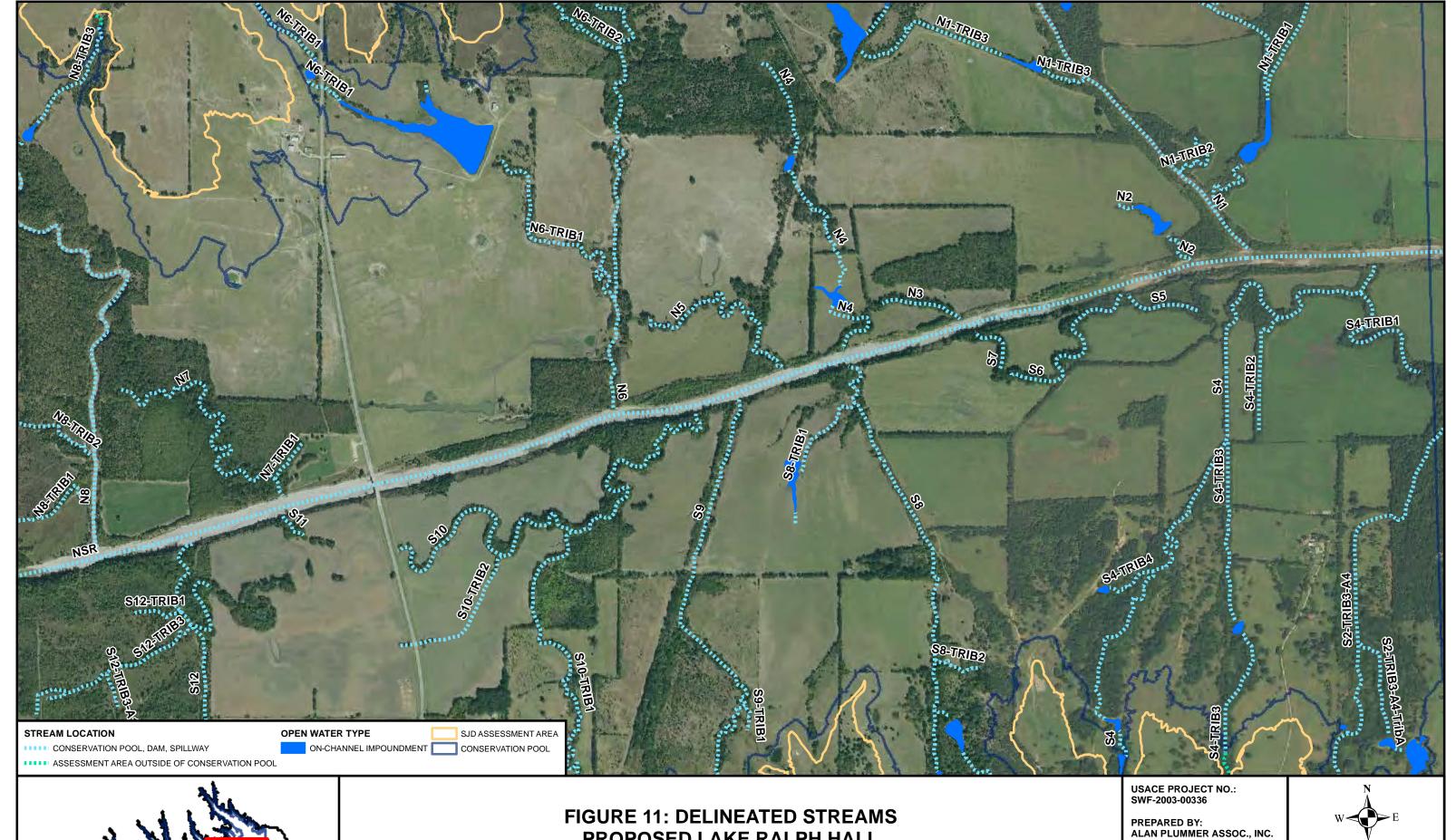
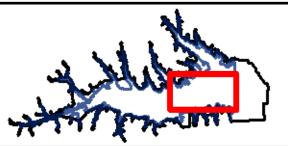


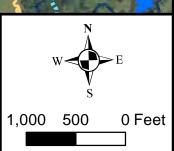
FIGURE 10: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

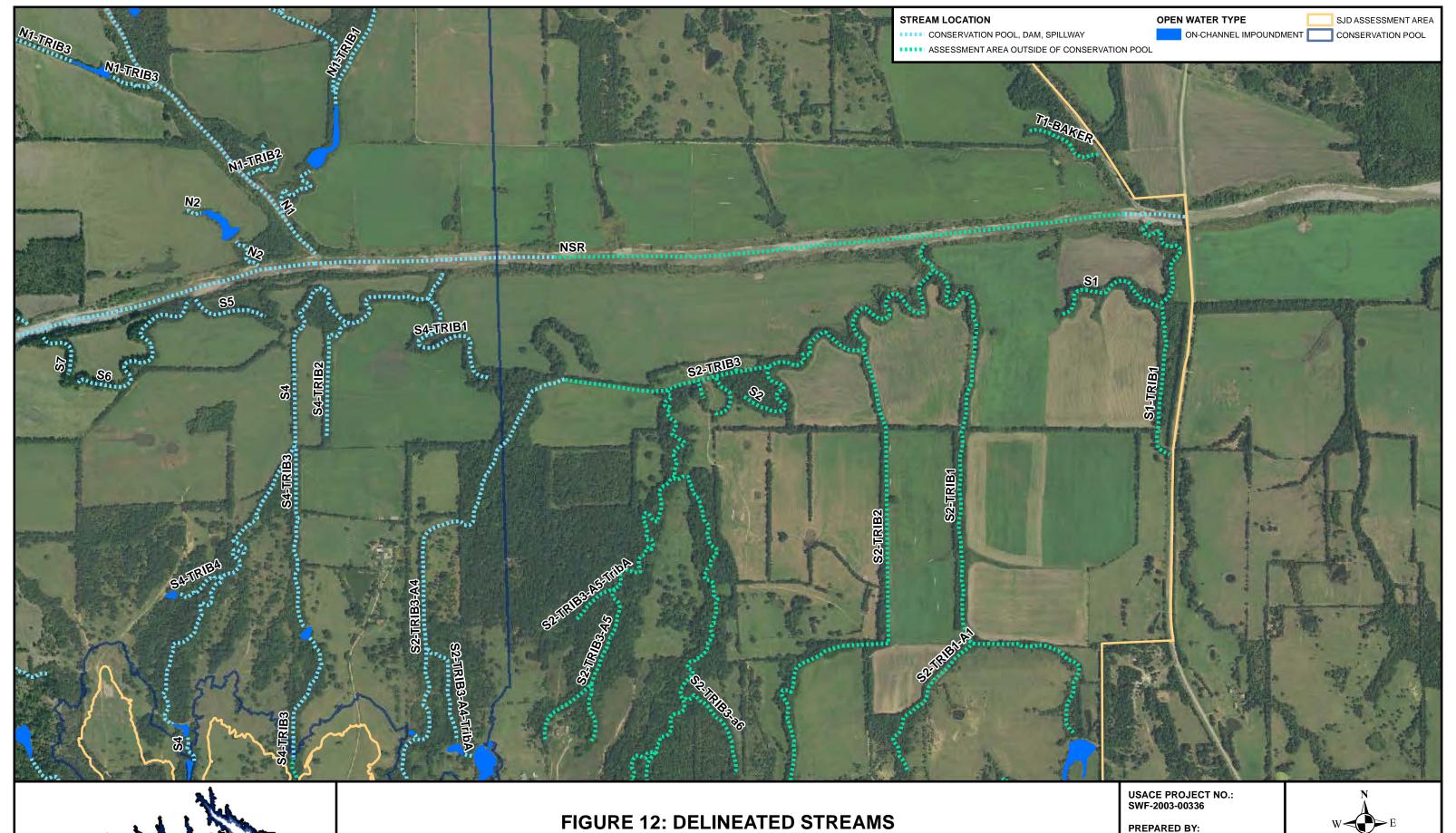
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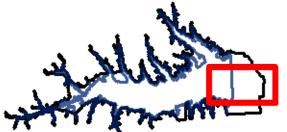






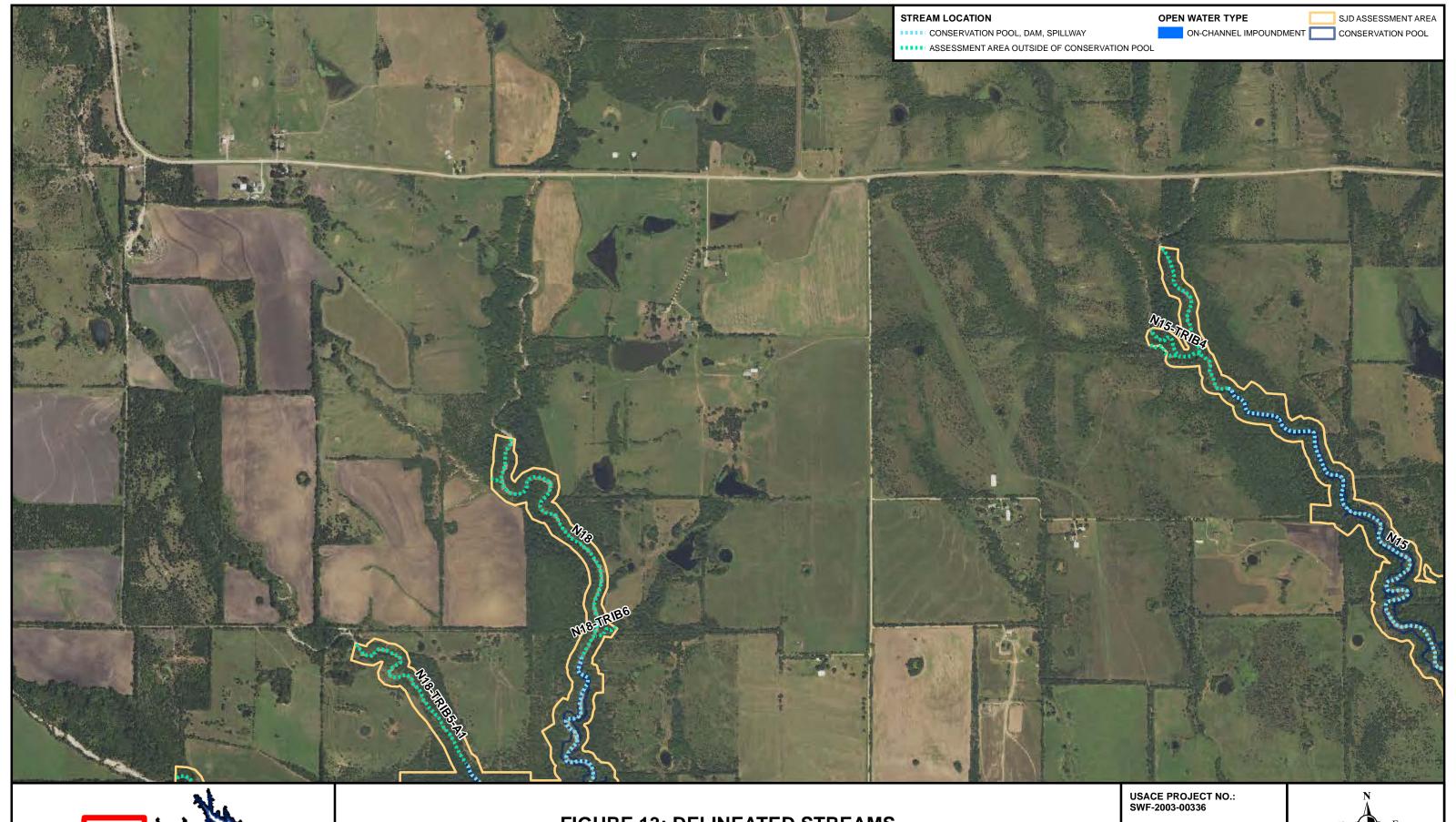






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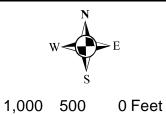


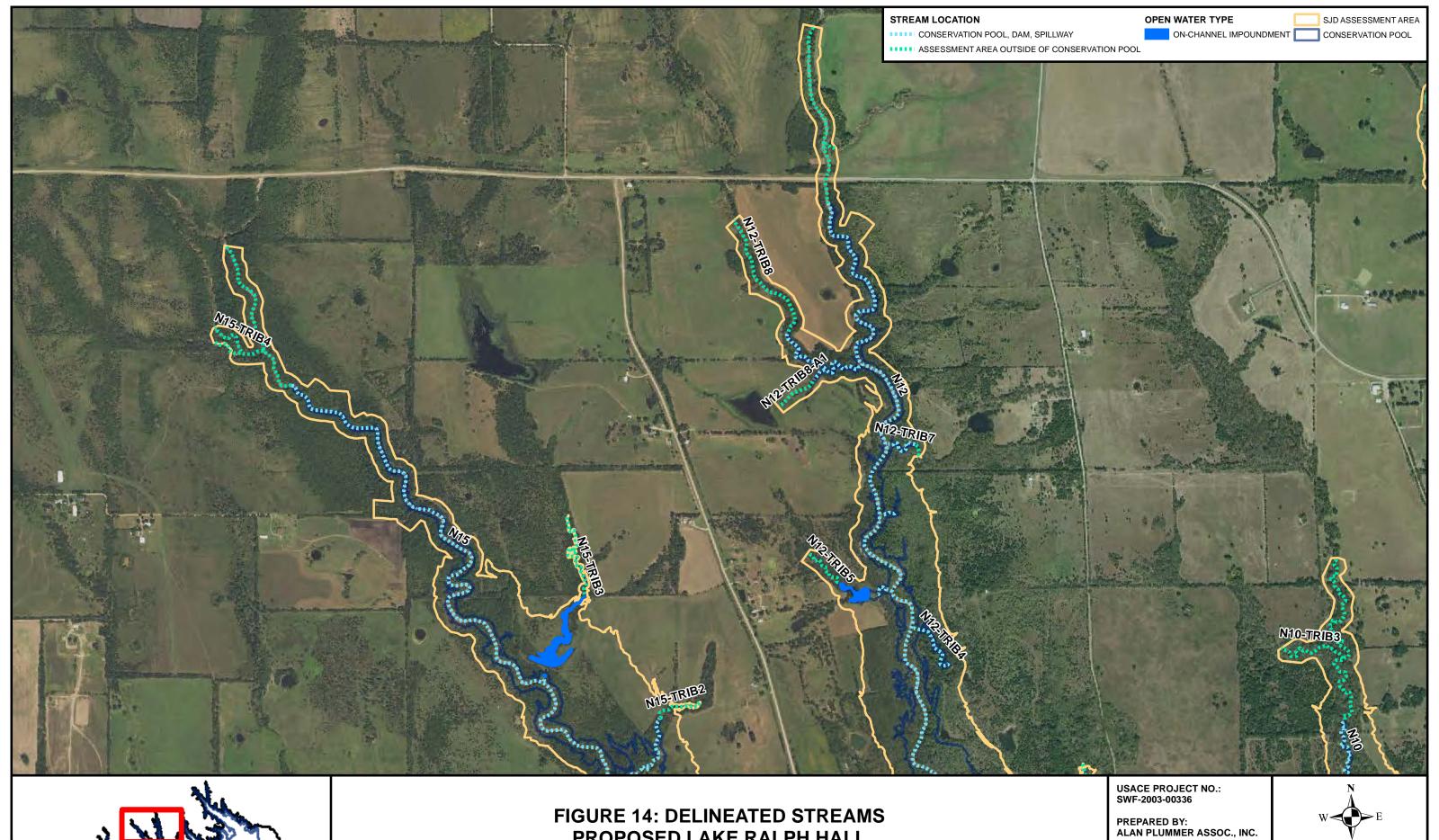


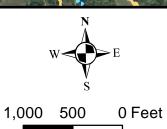
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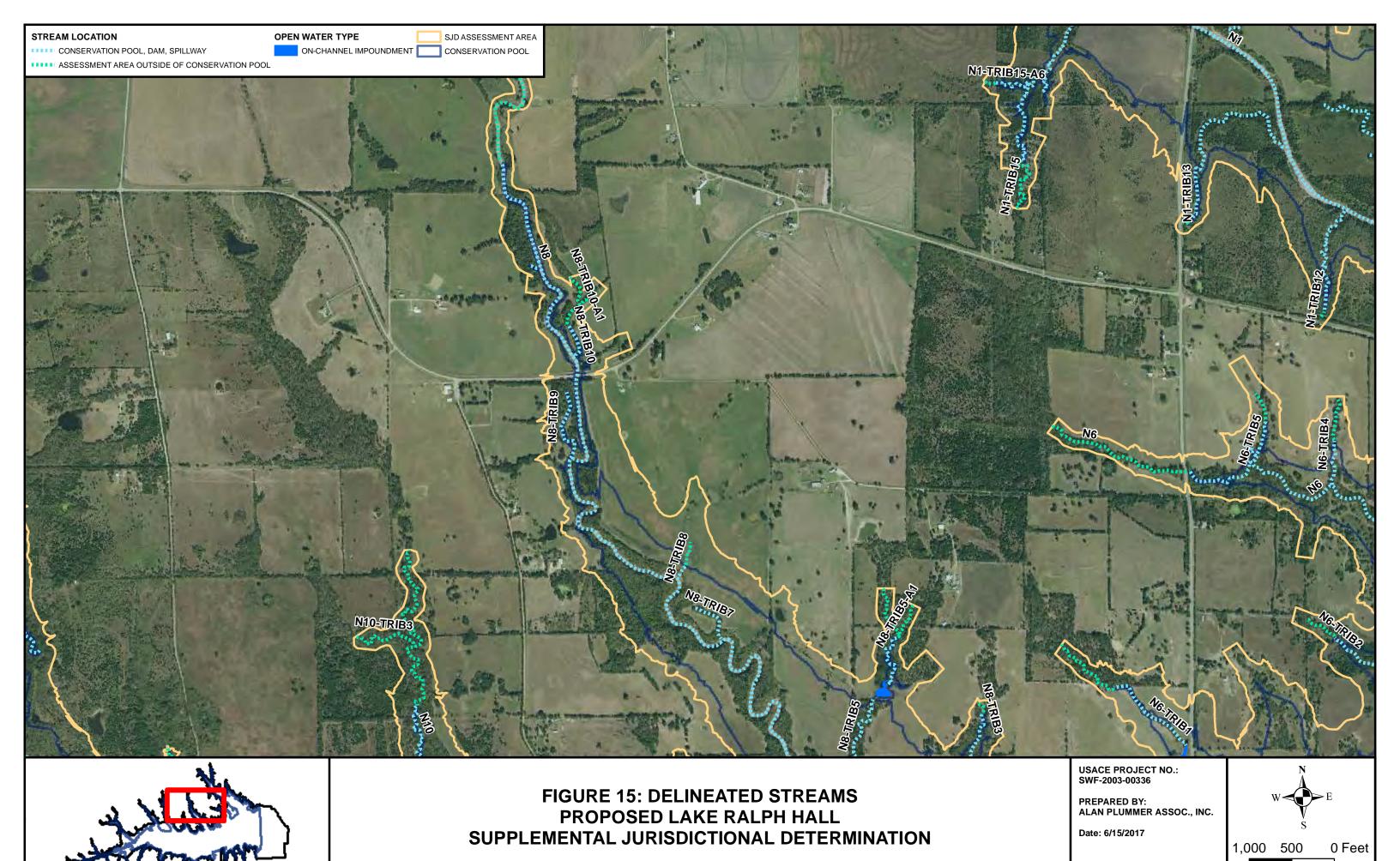
FIGURE 13: DELINEATED STREAMS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

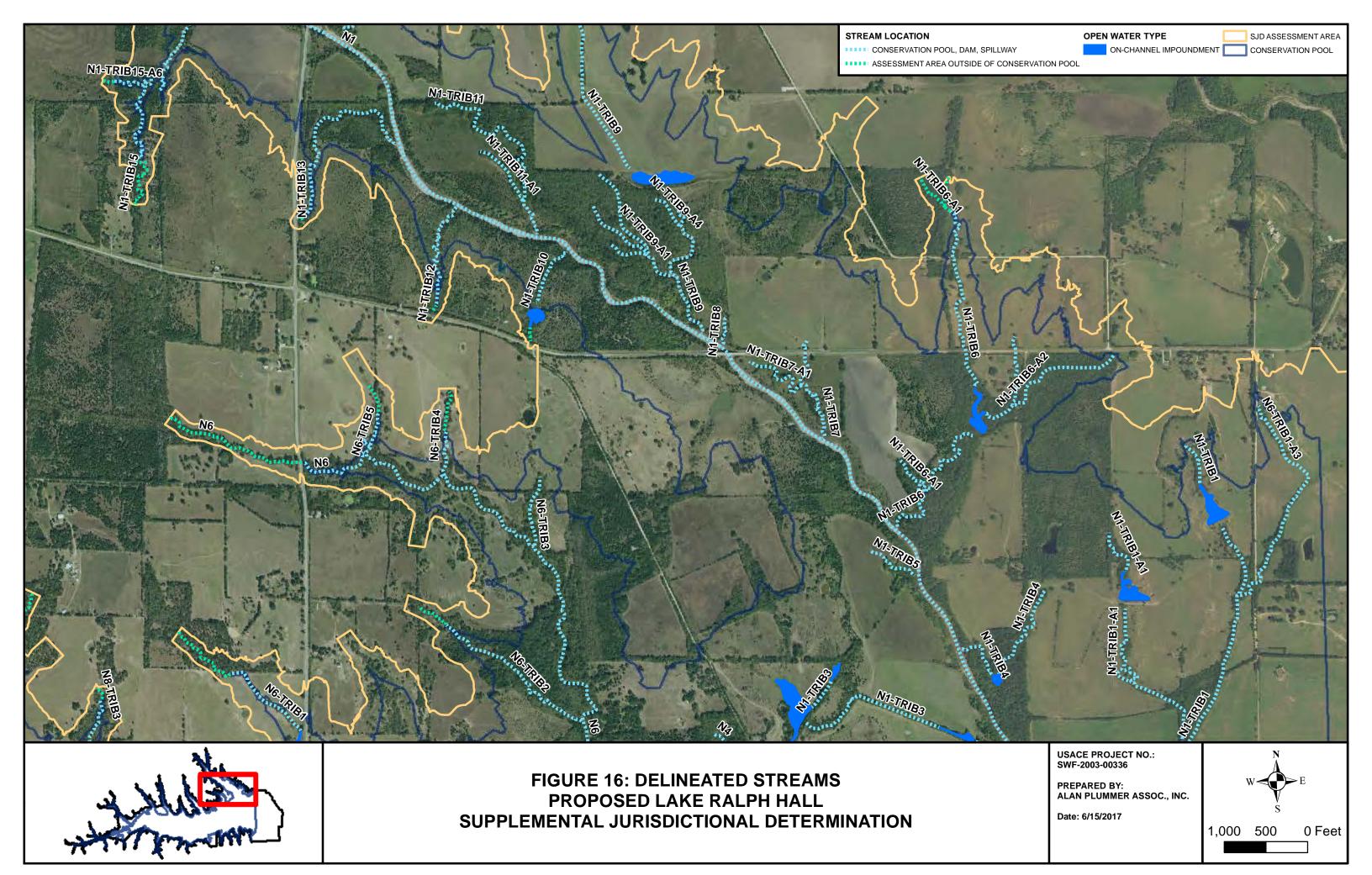
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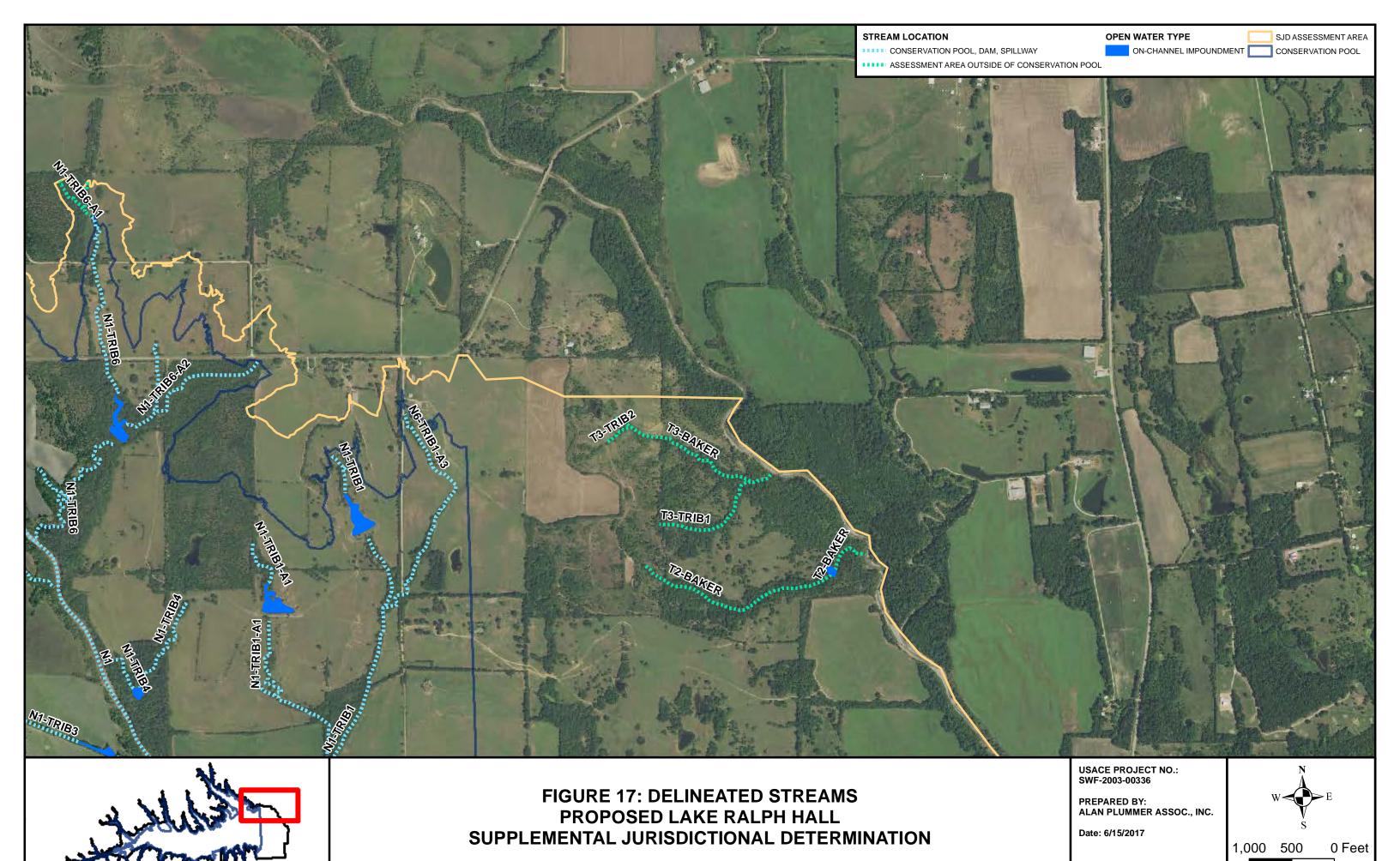


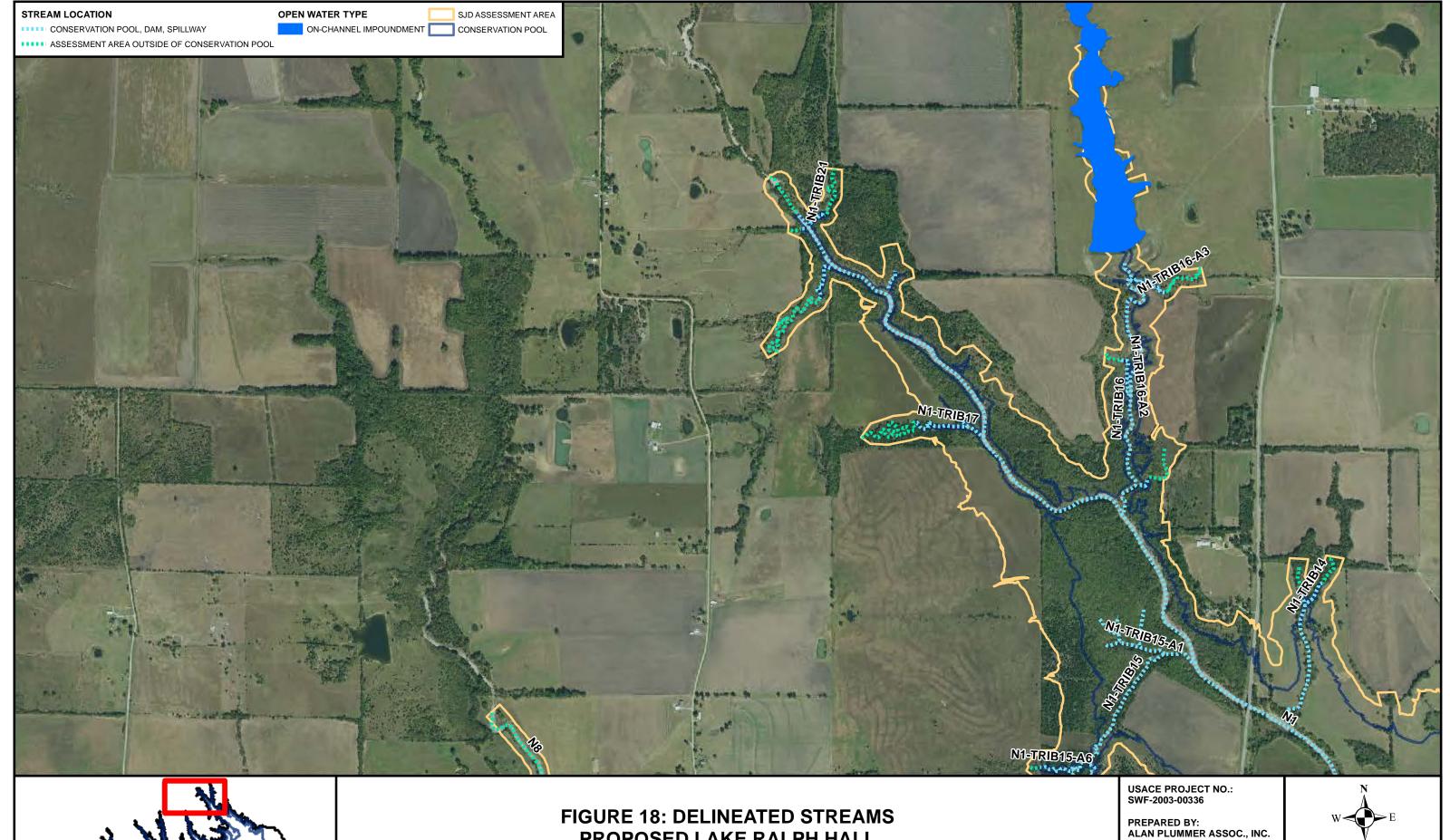


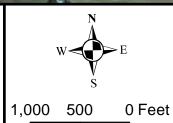


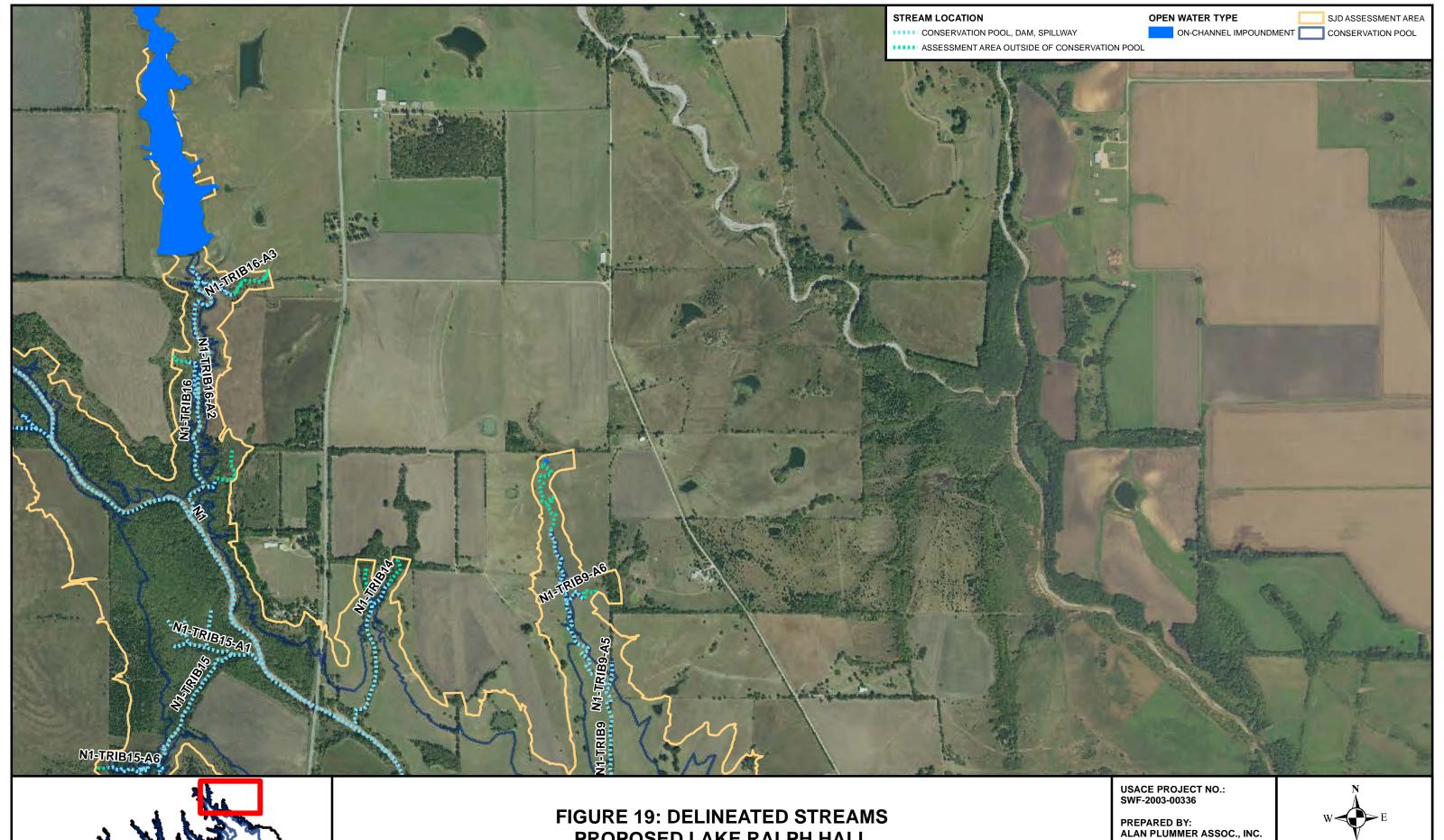


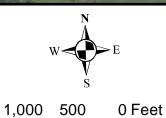




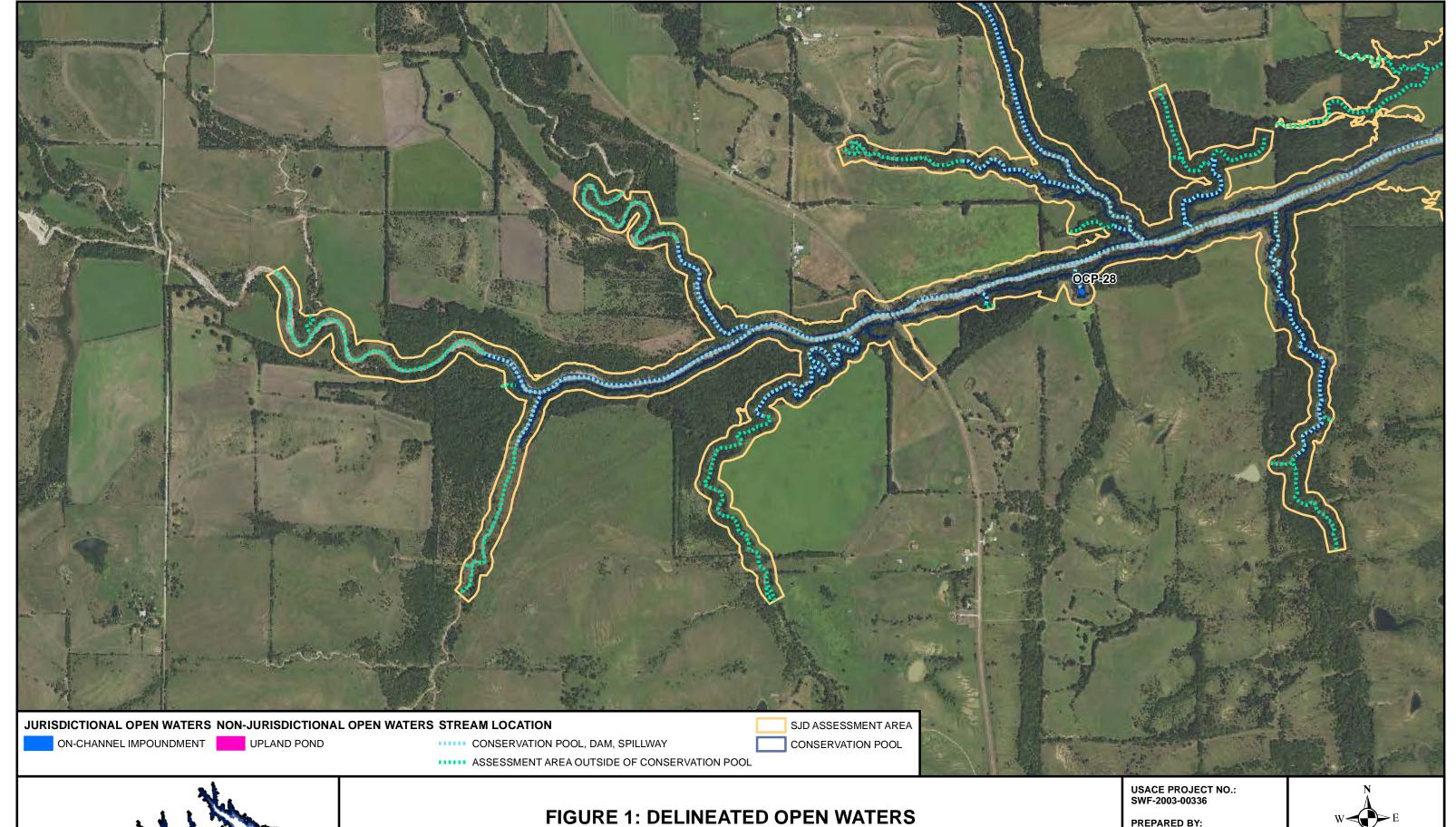








MAPBOOK DELINEATED OPEN WATERS



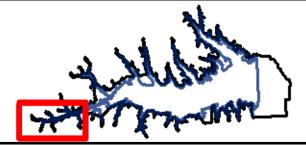
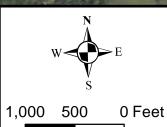
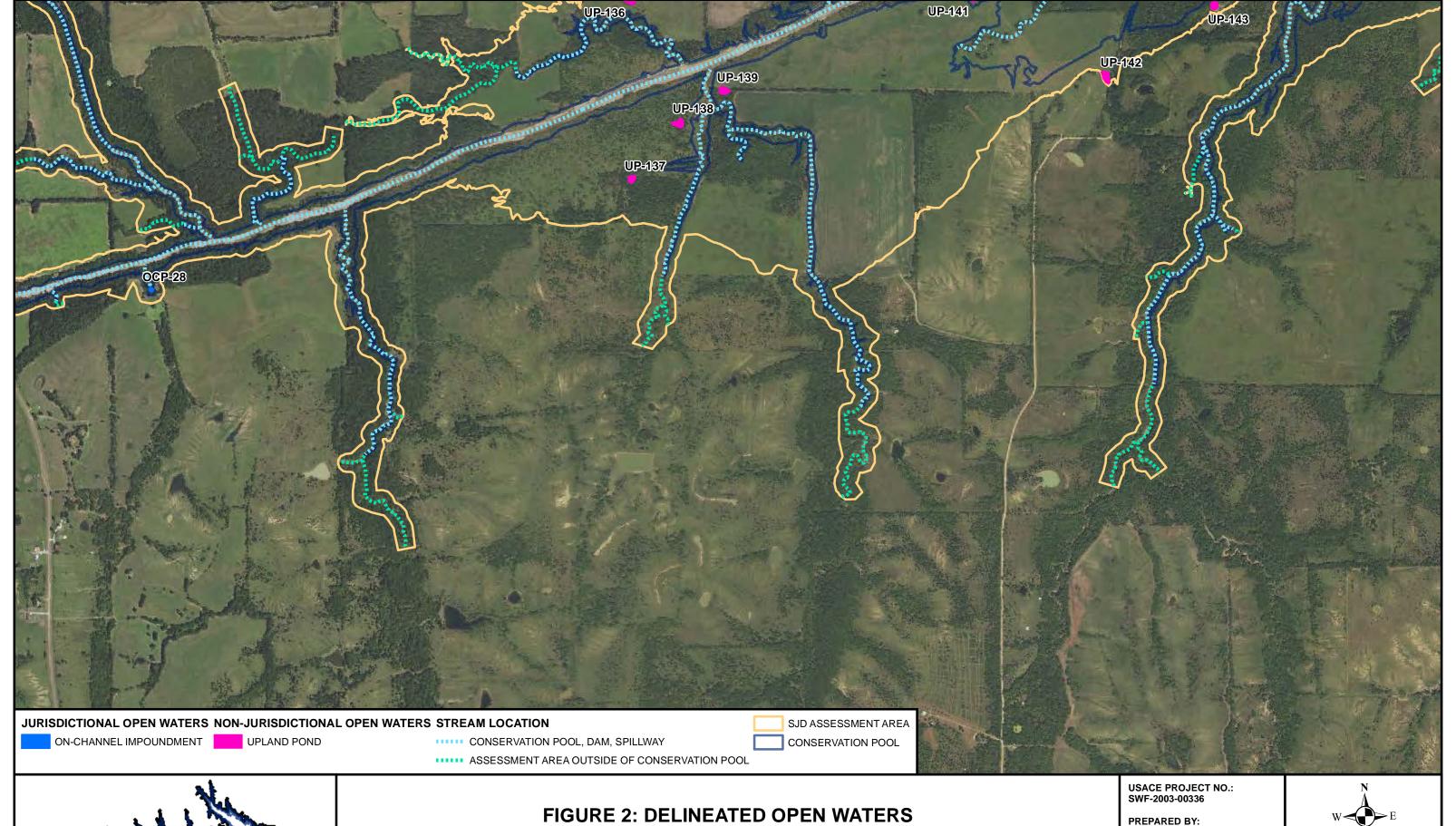


FIGURE 1: DELINEATED OPEN WATERS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

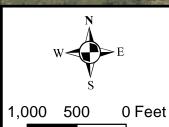
PREPARED BY: ALAN PLUMMER ASSOC., INC.







PREPARED BY: ALAN PLUMMER ASSOC., INC.



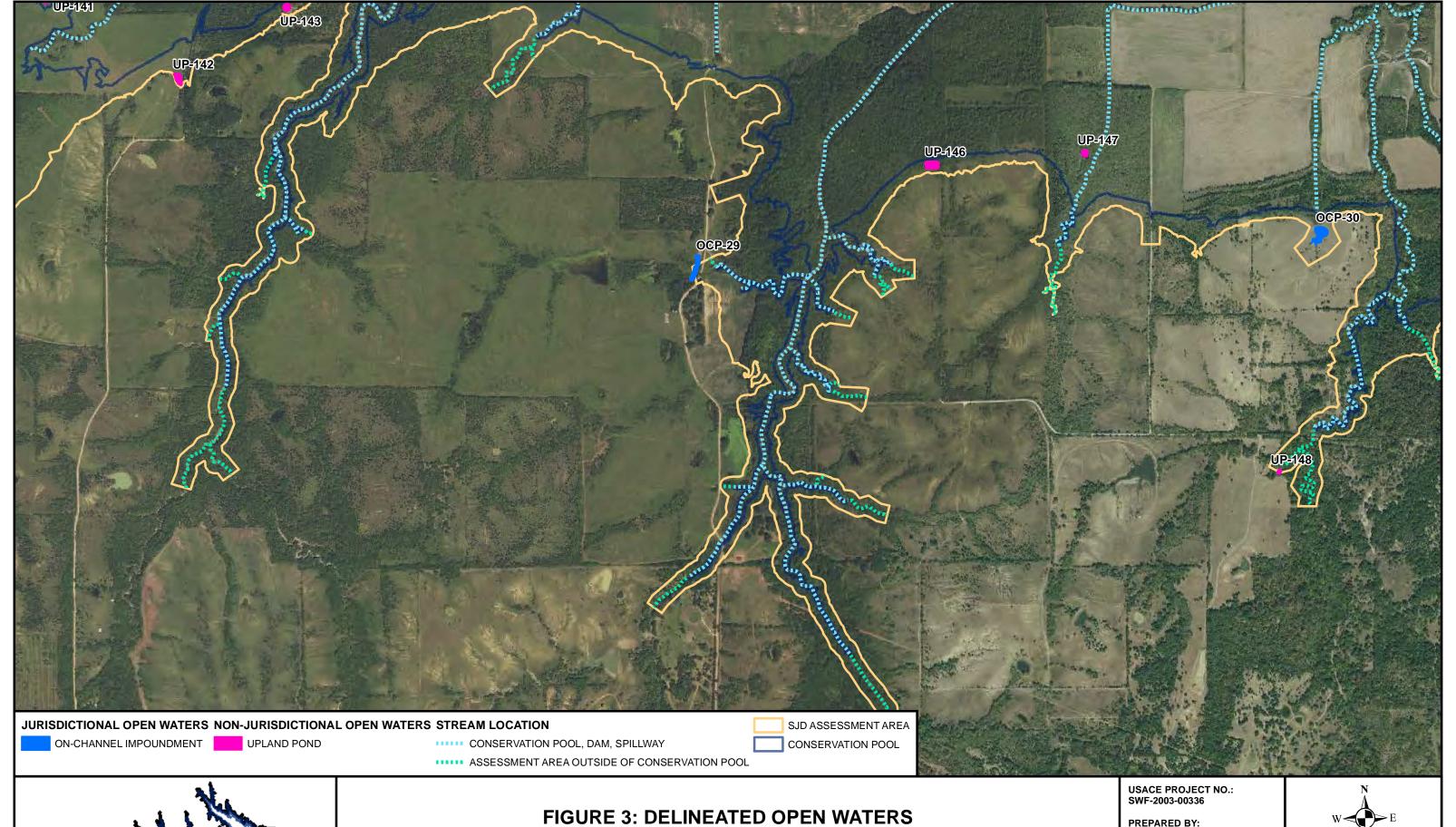
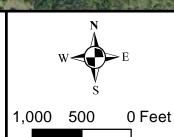
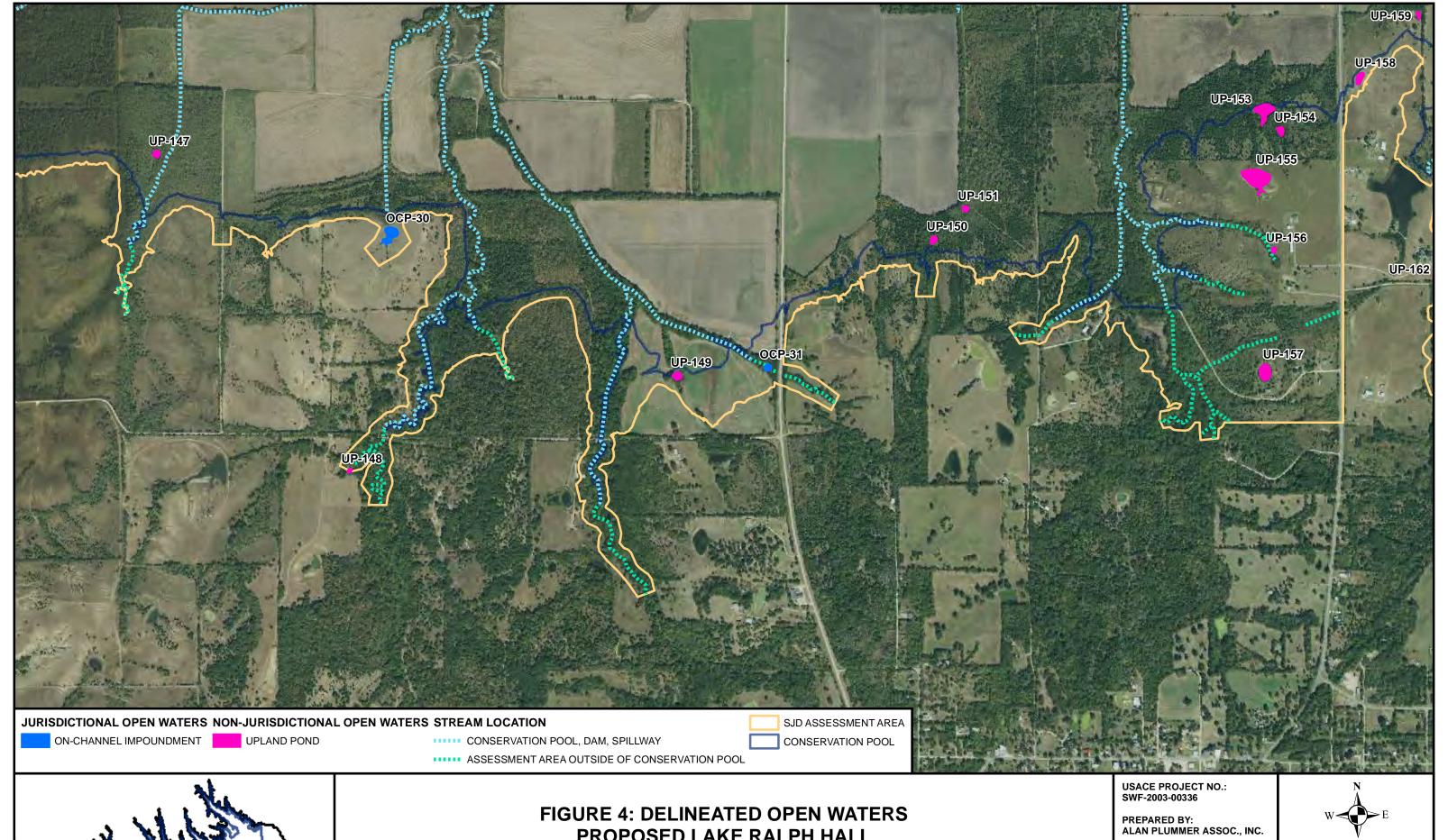




FIGURE 3: DELINEATED OPEN WATERS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

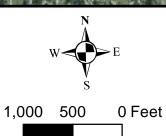
PREPARED BY: ALAN PLUMMER ASSOC., INC.

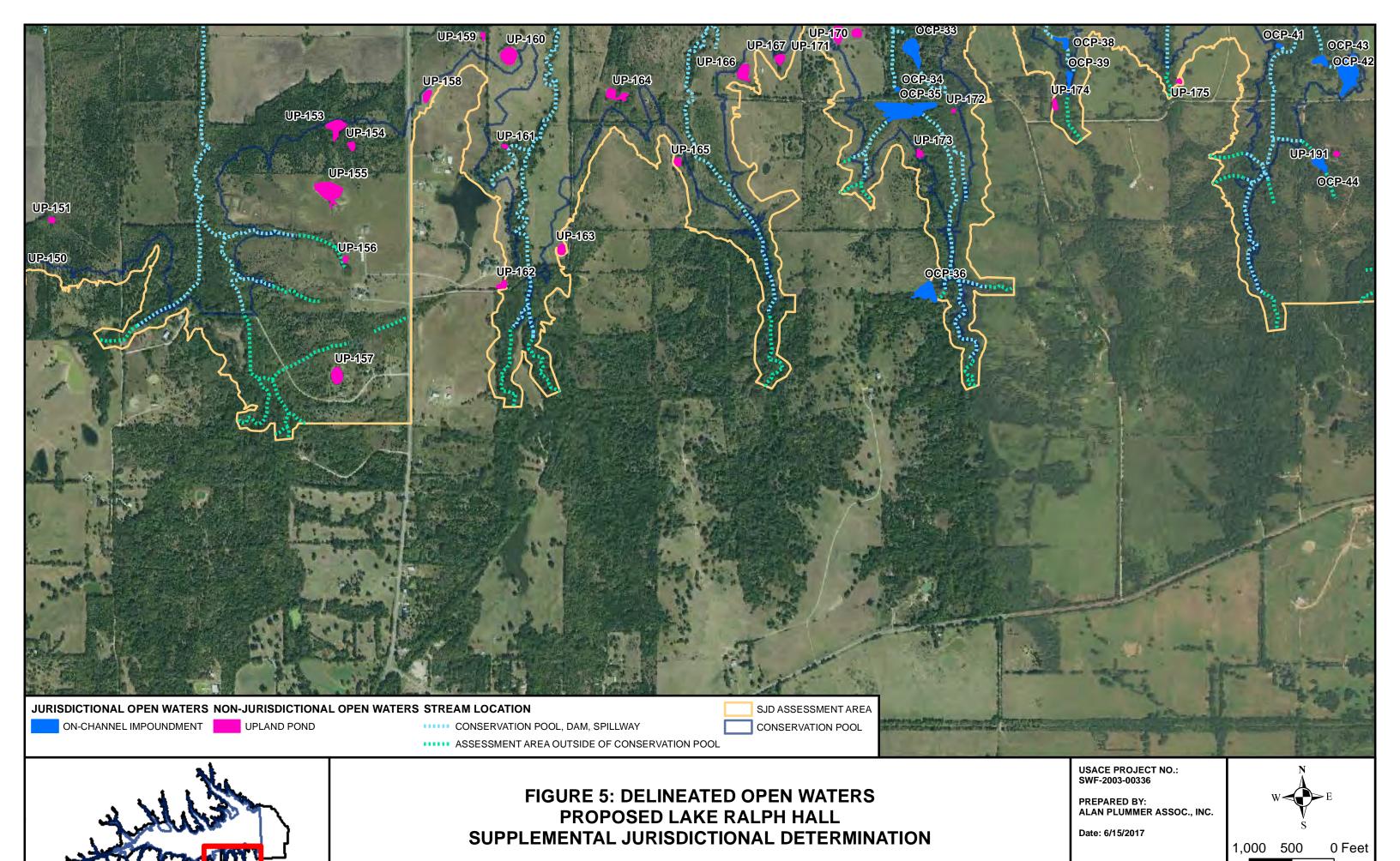


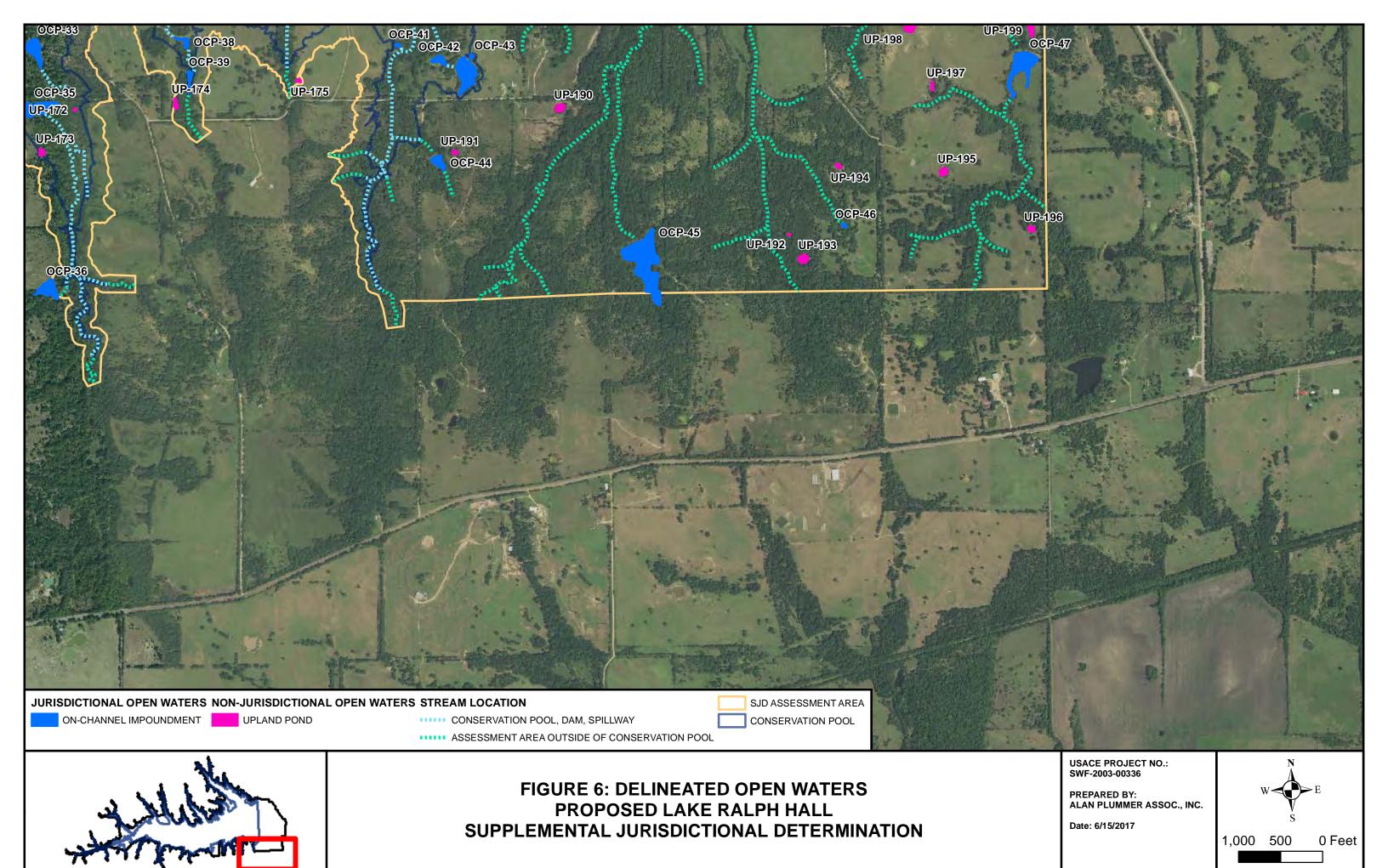


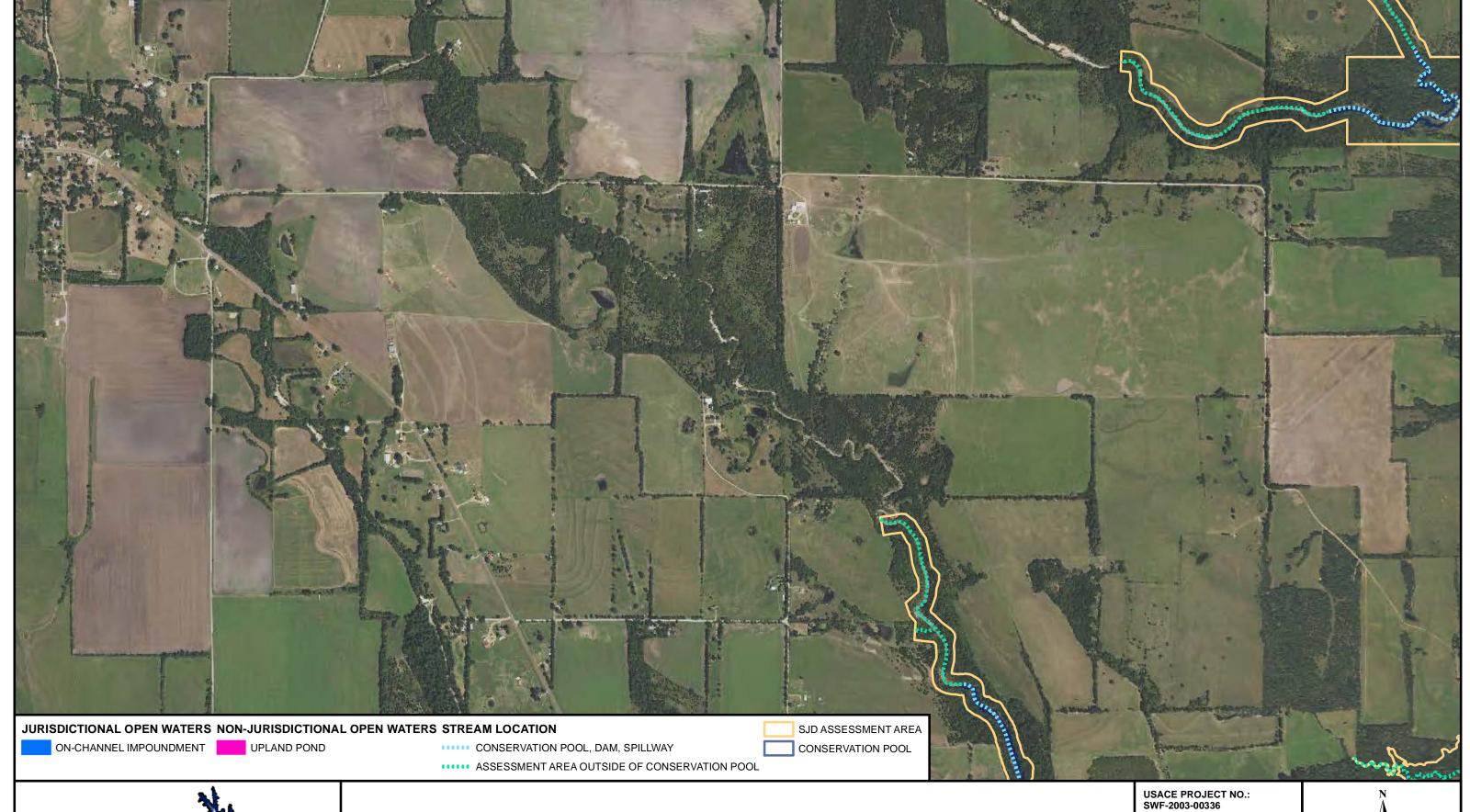


PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION









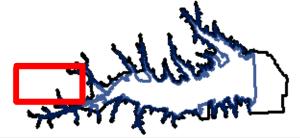
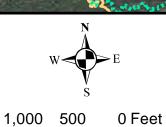
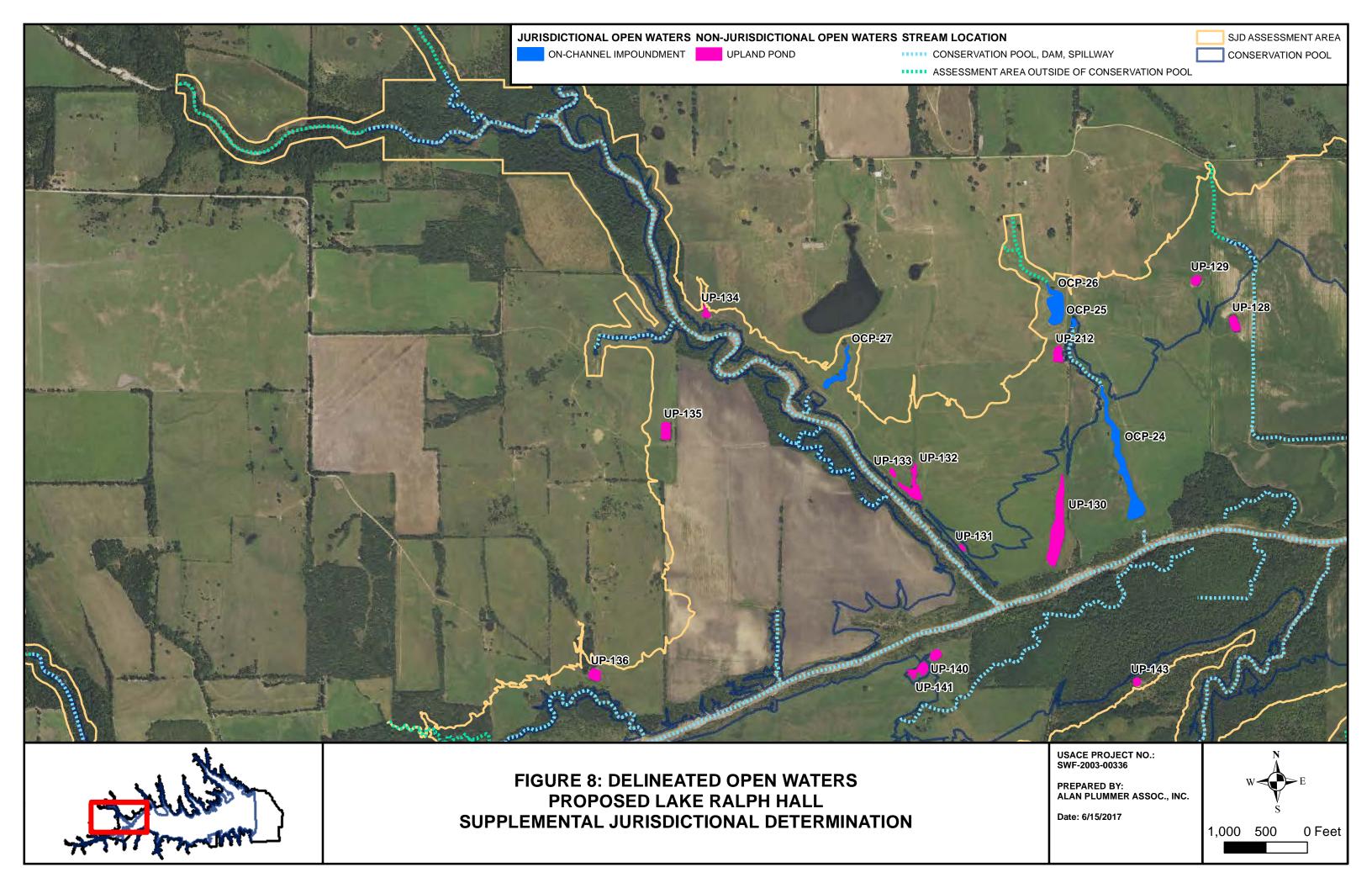
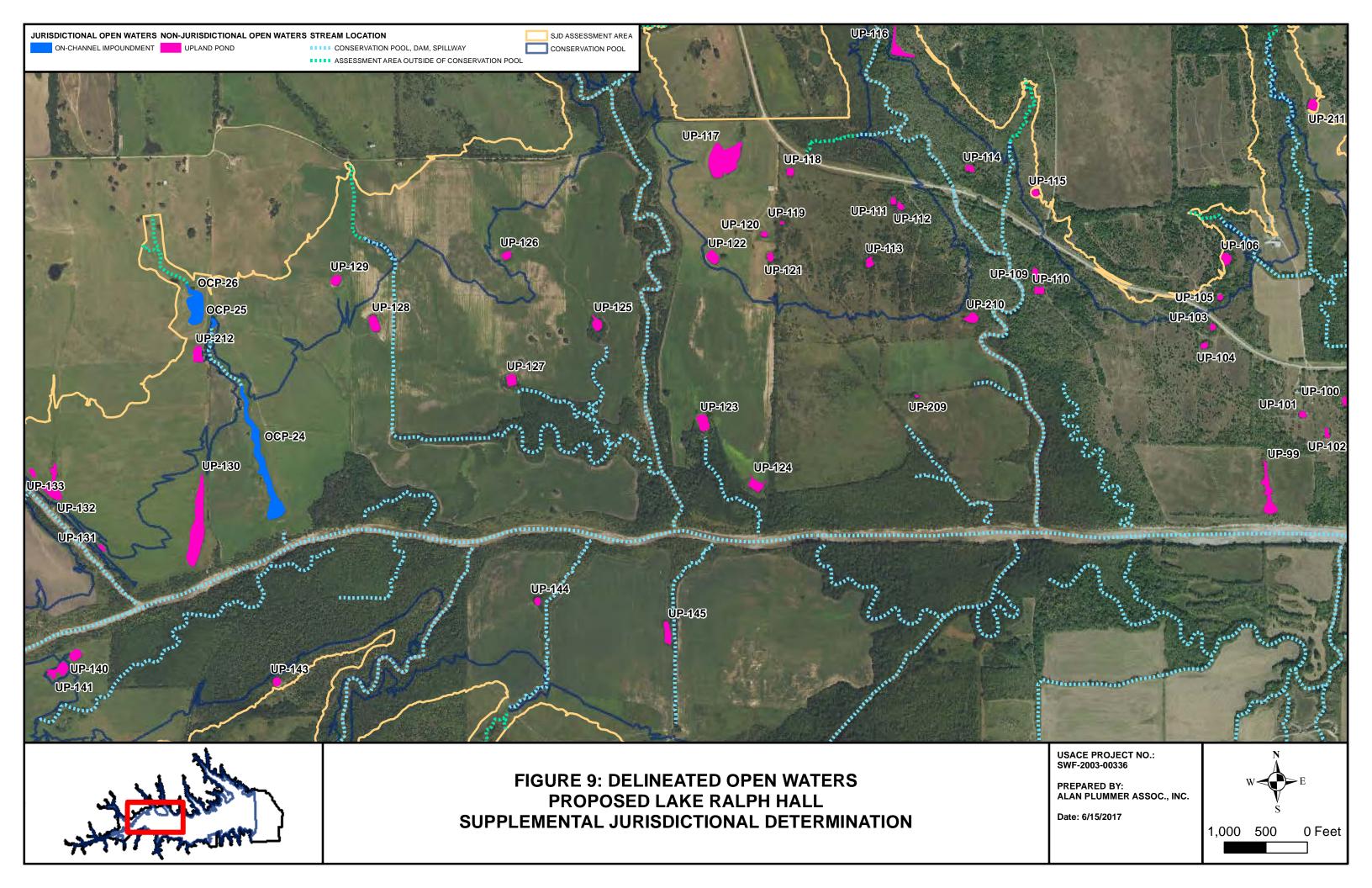


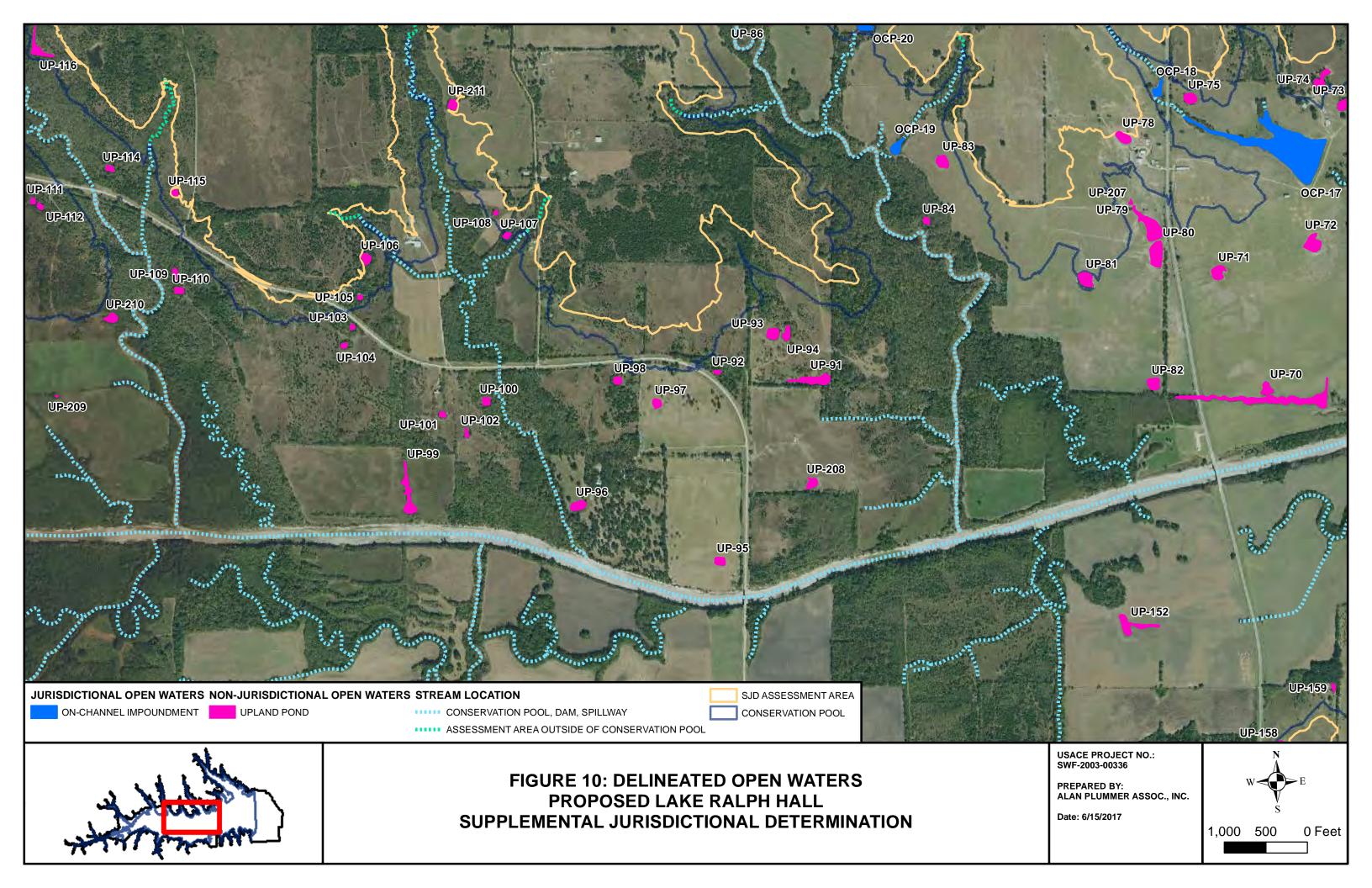
FIGURE 7: DELINEATED OPEN WATERS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

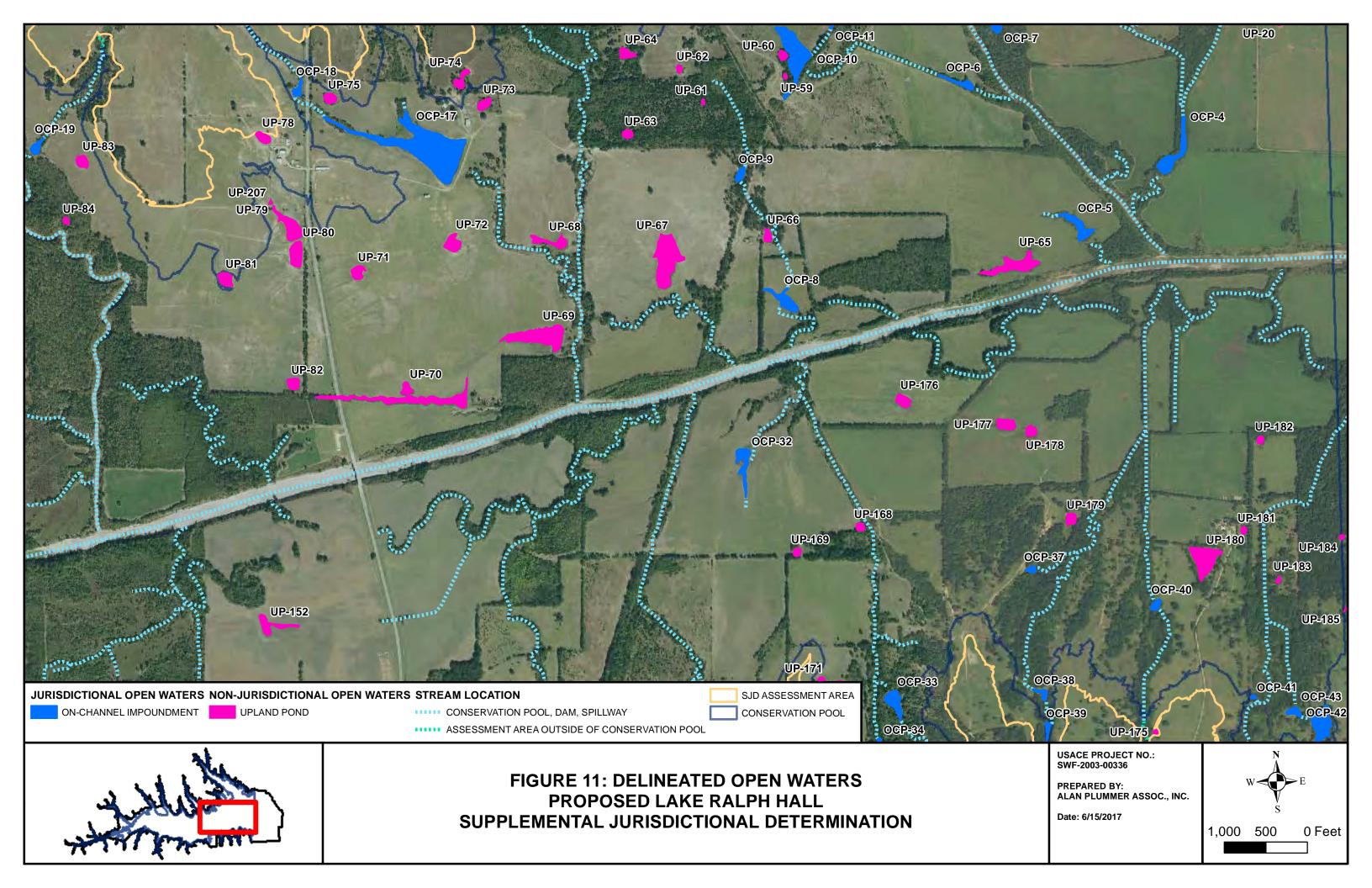
PREPARED BY: ALAN PLUMMER ASSOC., INC.

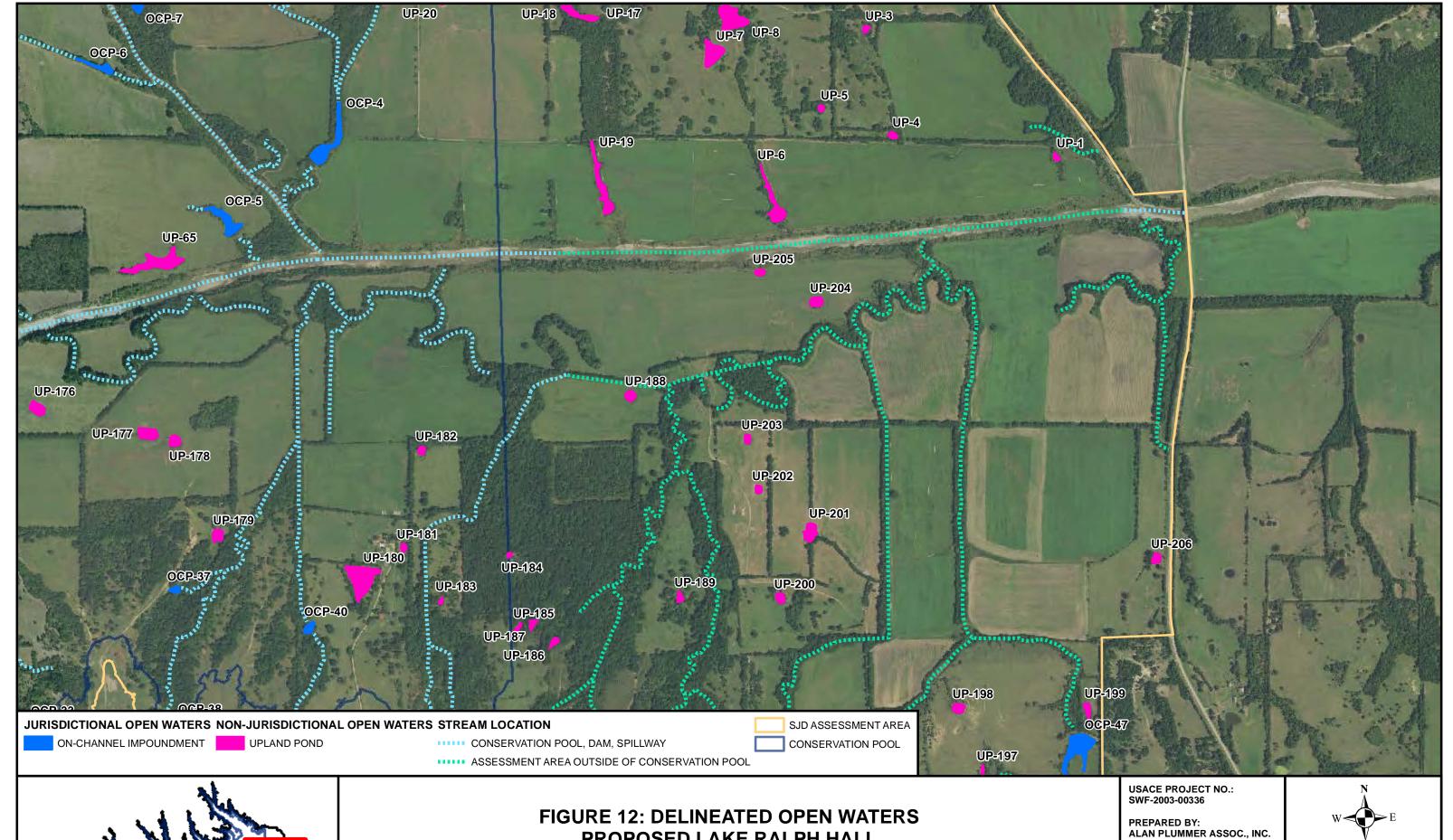


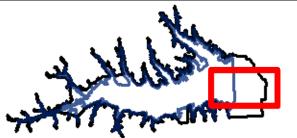




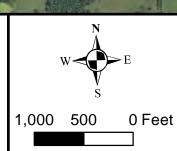


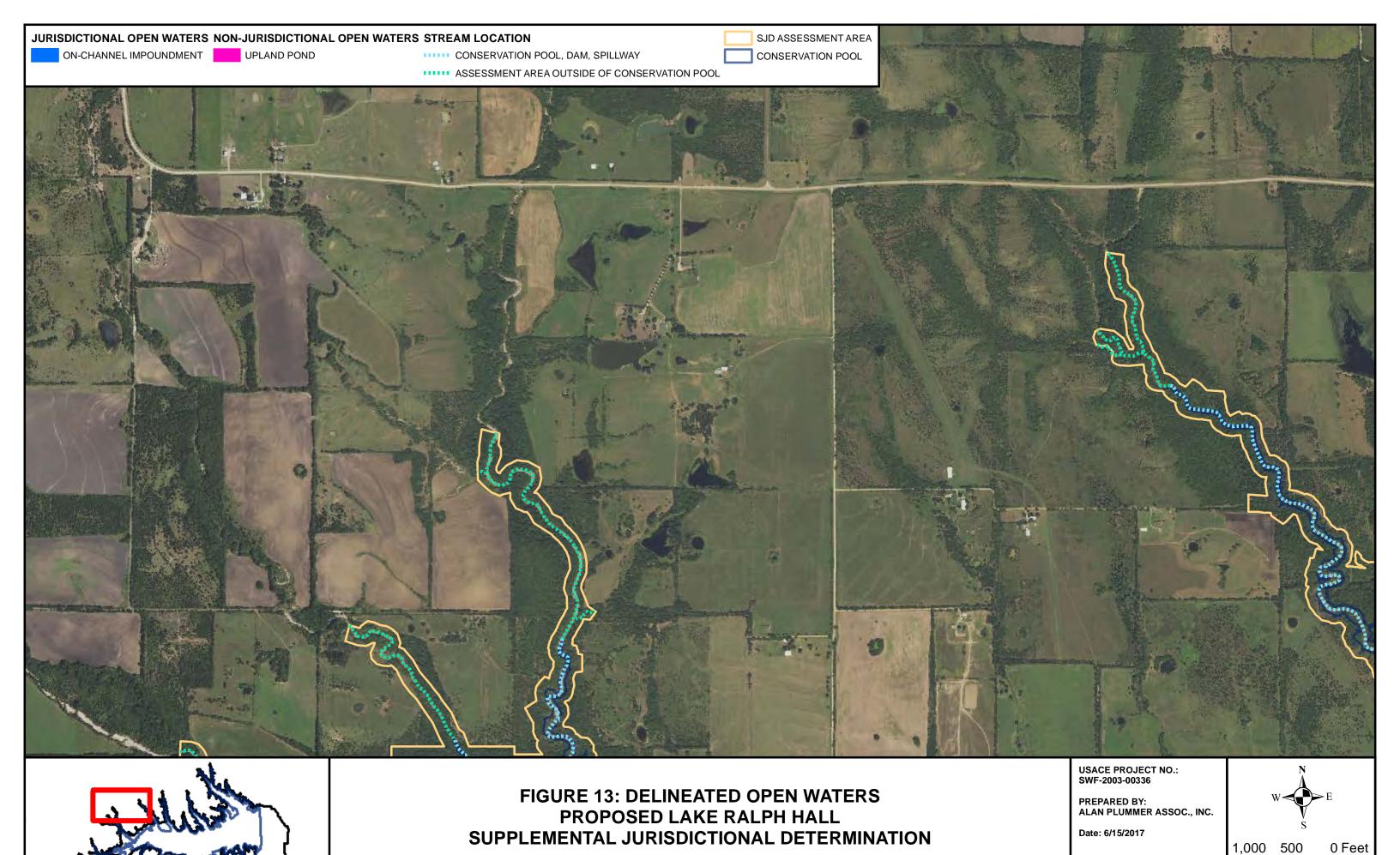


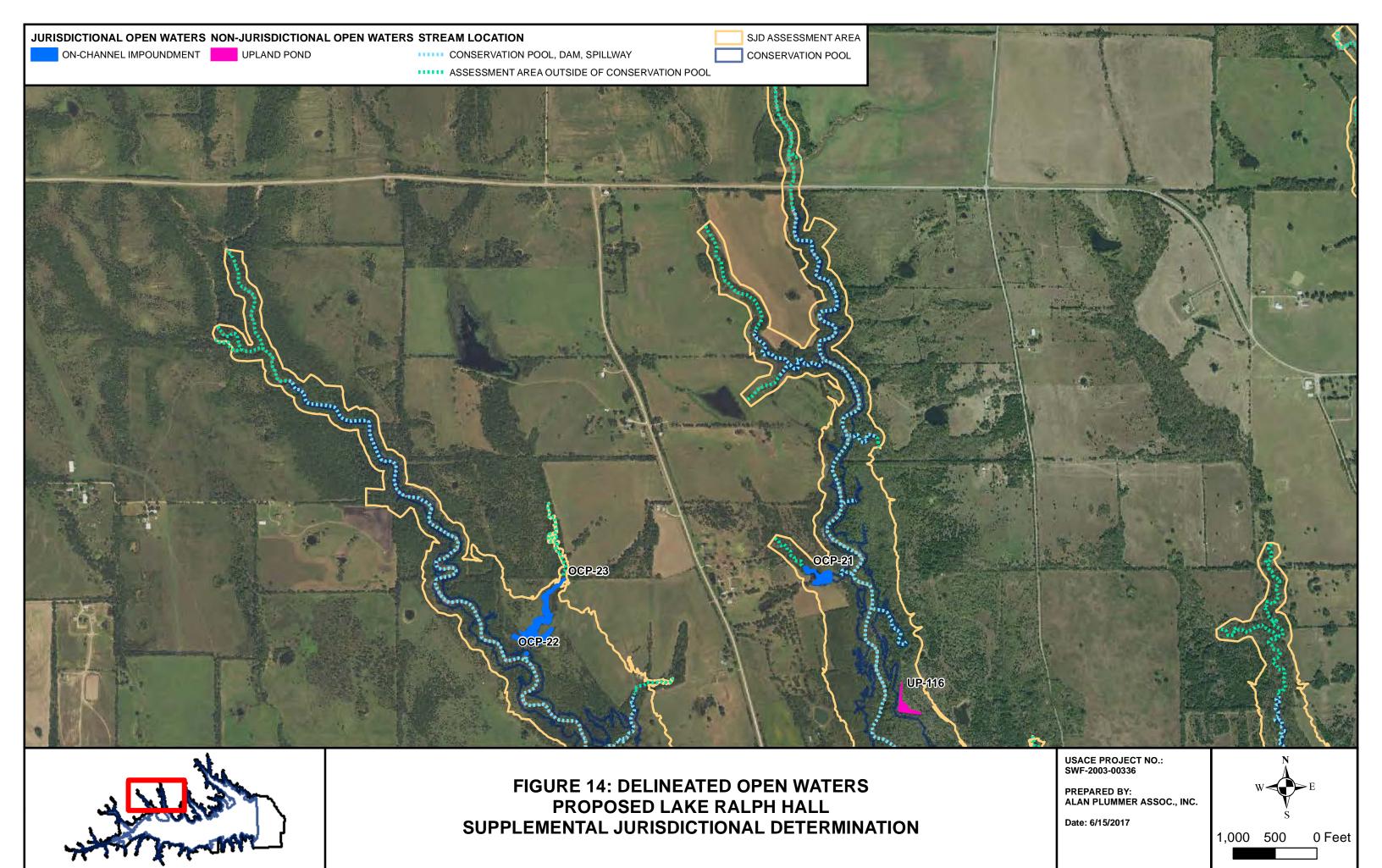


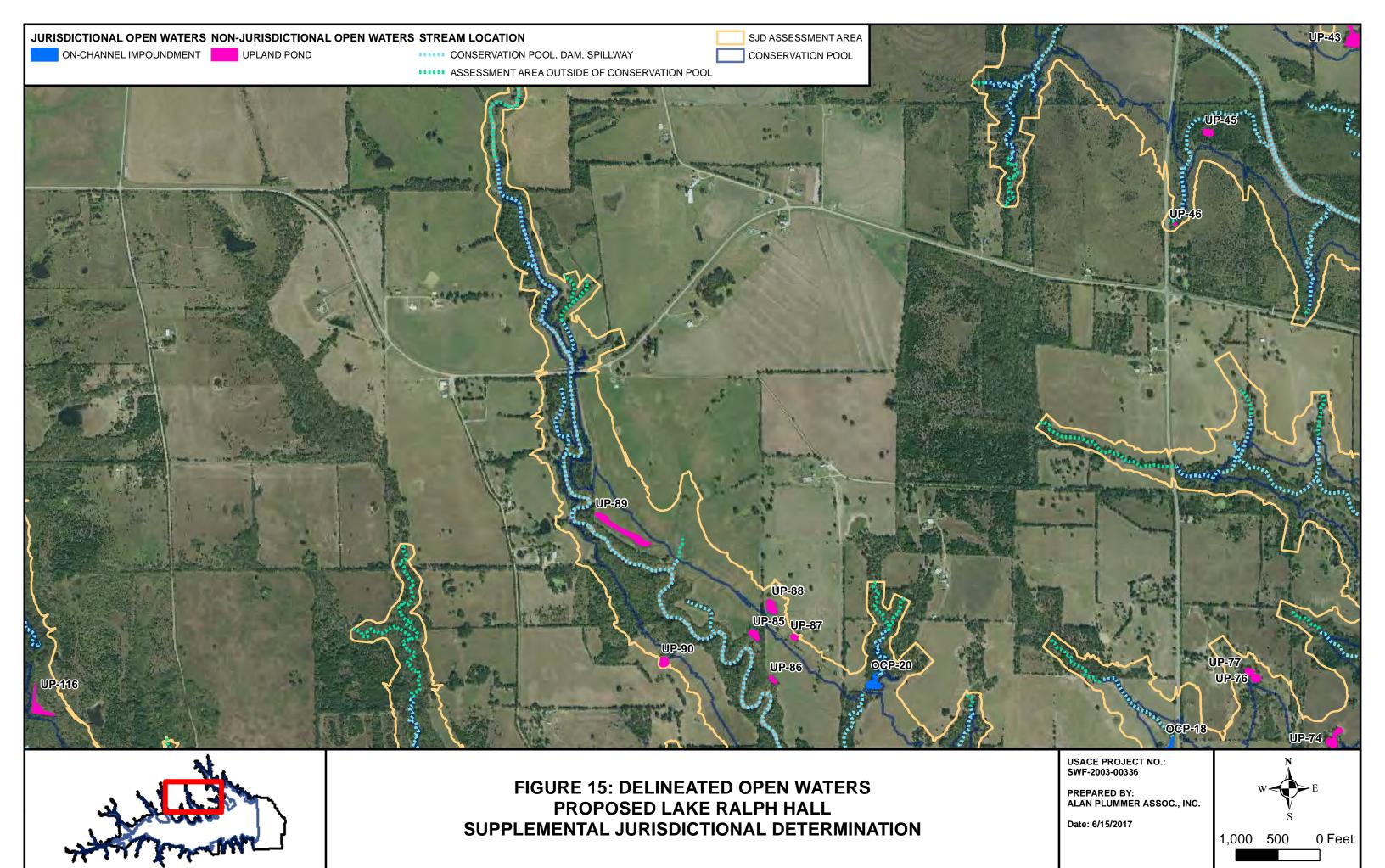


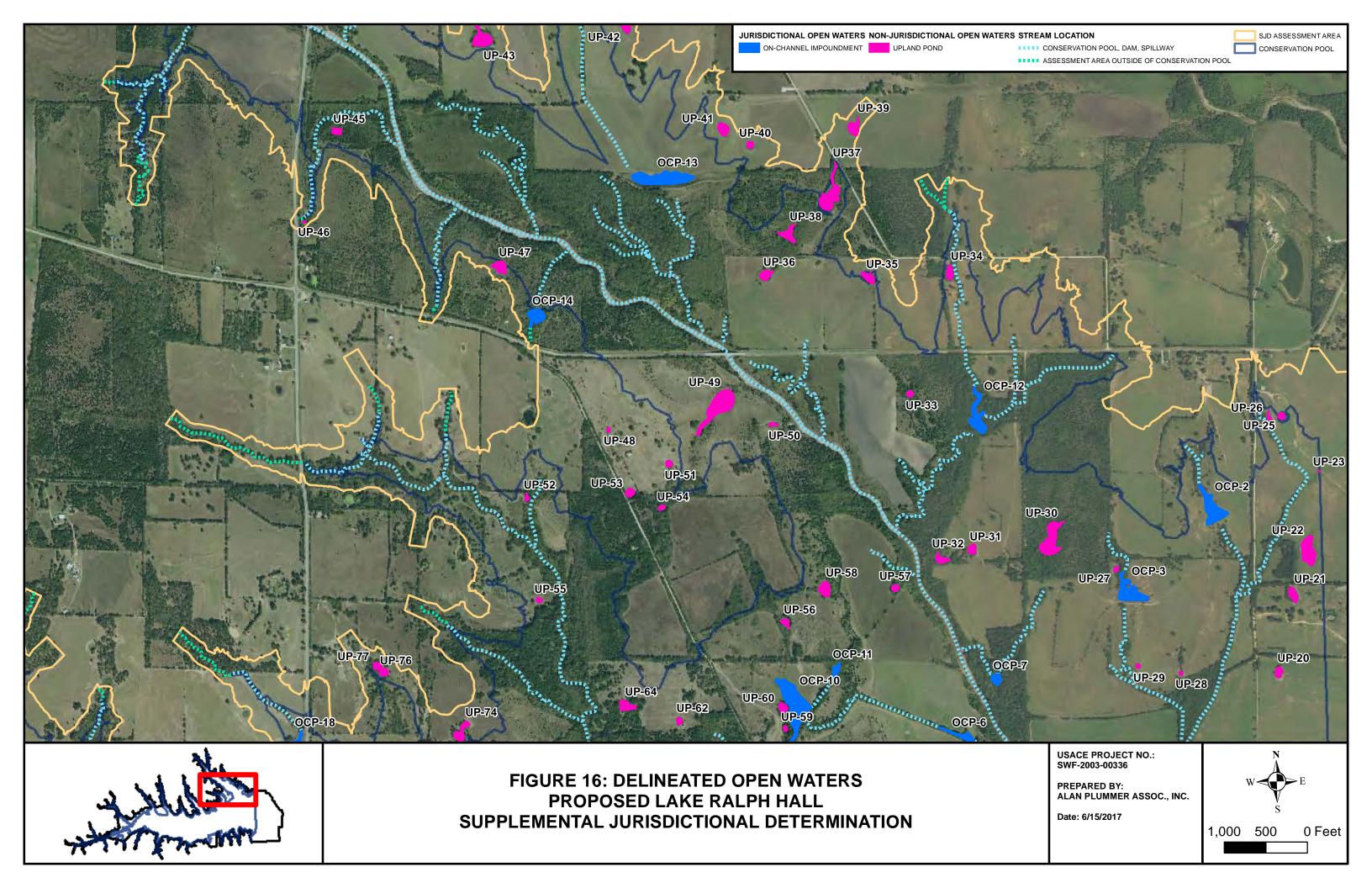
PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

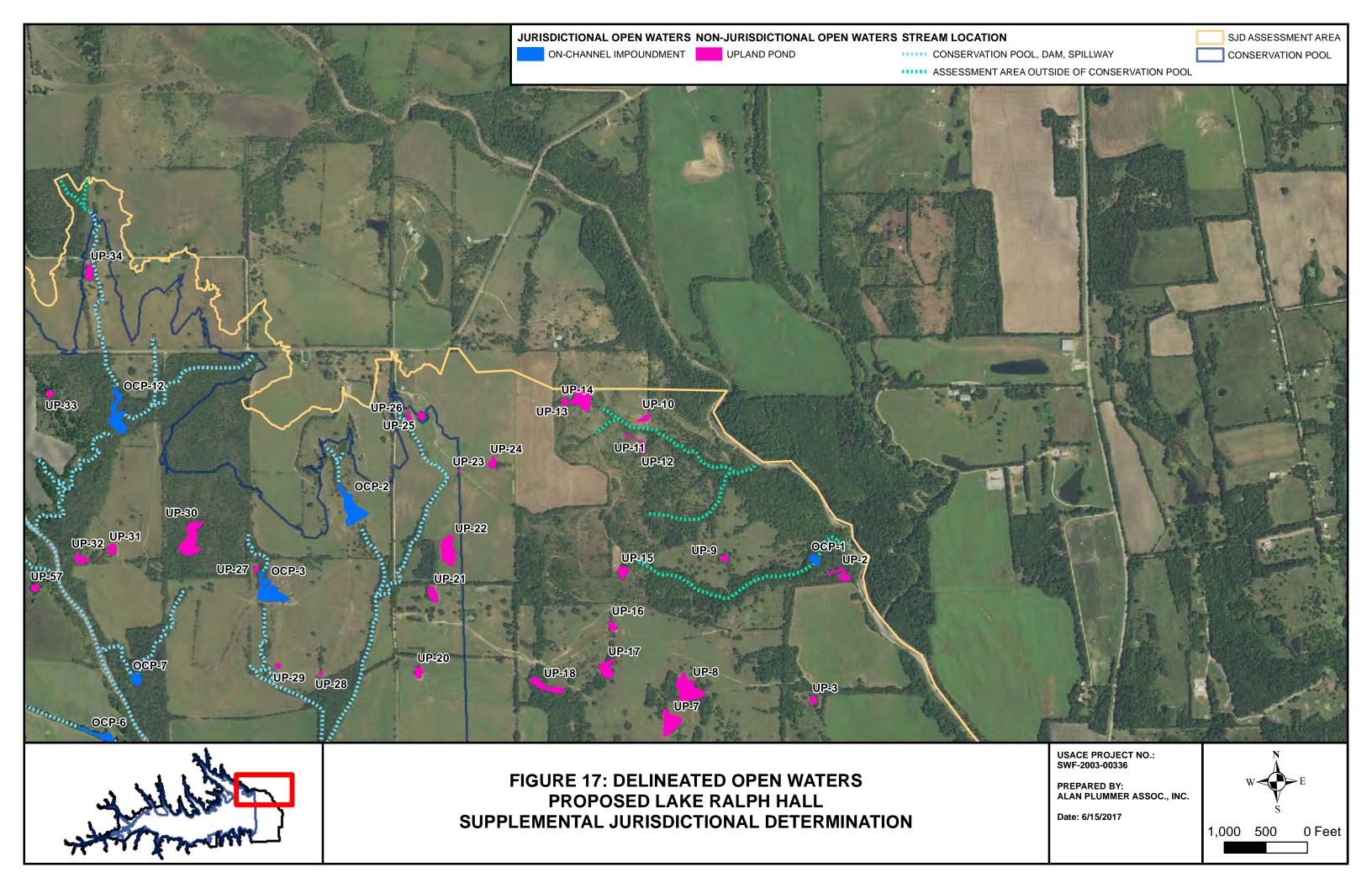


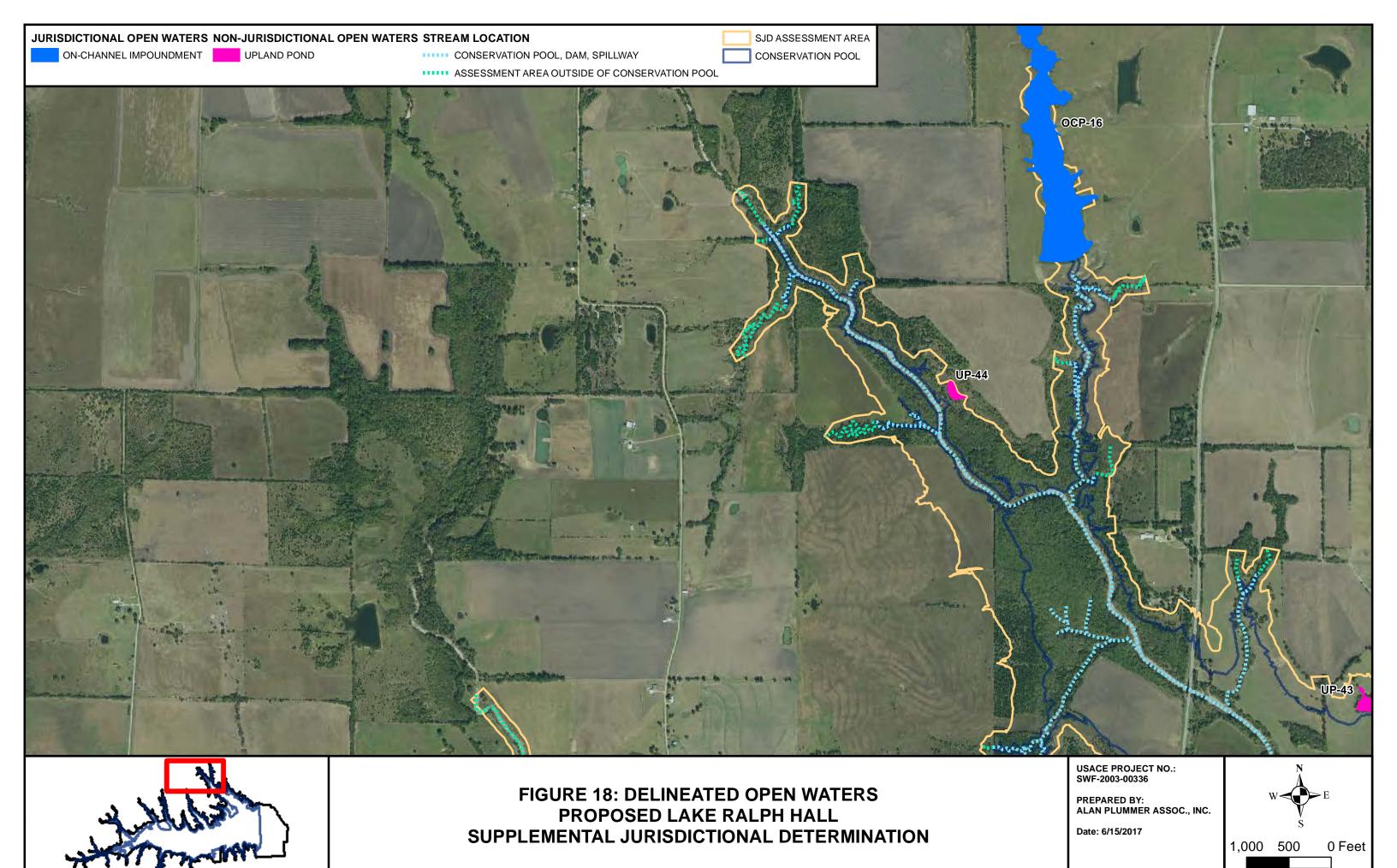


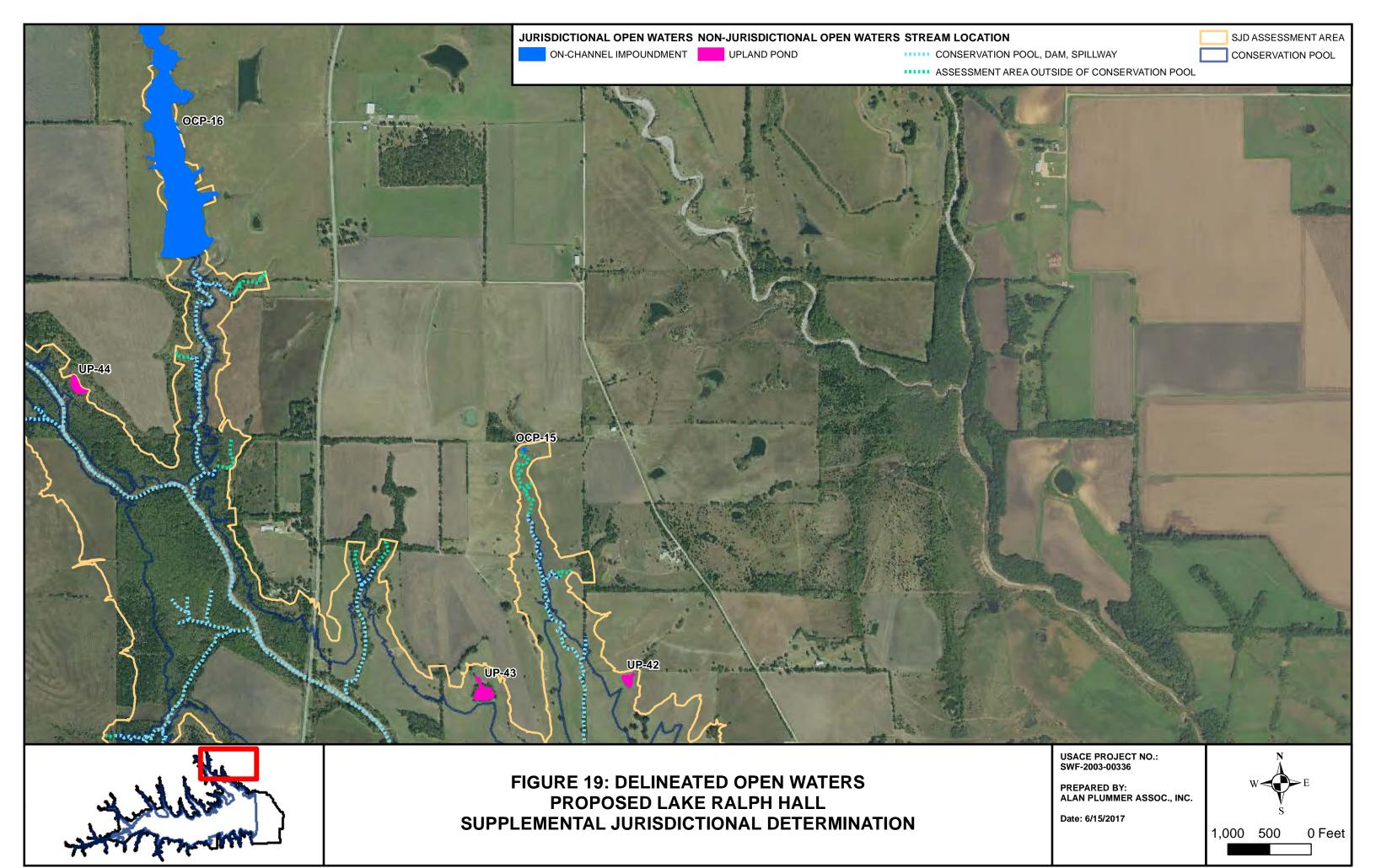












MAPBOOK DELINEATED ISOLATED FORESTED WETLANDS



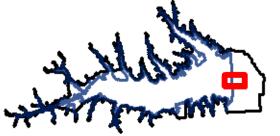


FIGURE 1: FORESTED WETLANDS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017







FIGURE 2: FORESTED WETLANDS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017





PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017



145 0 Feet 290





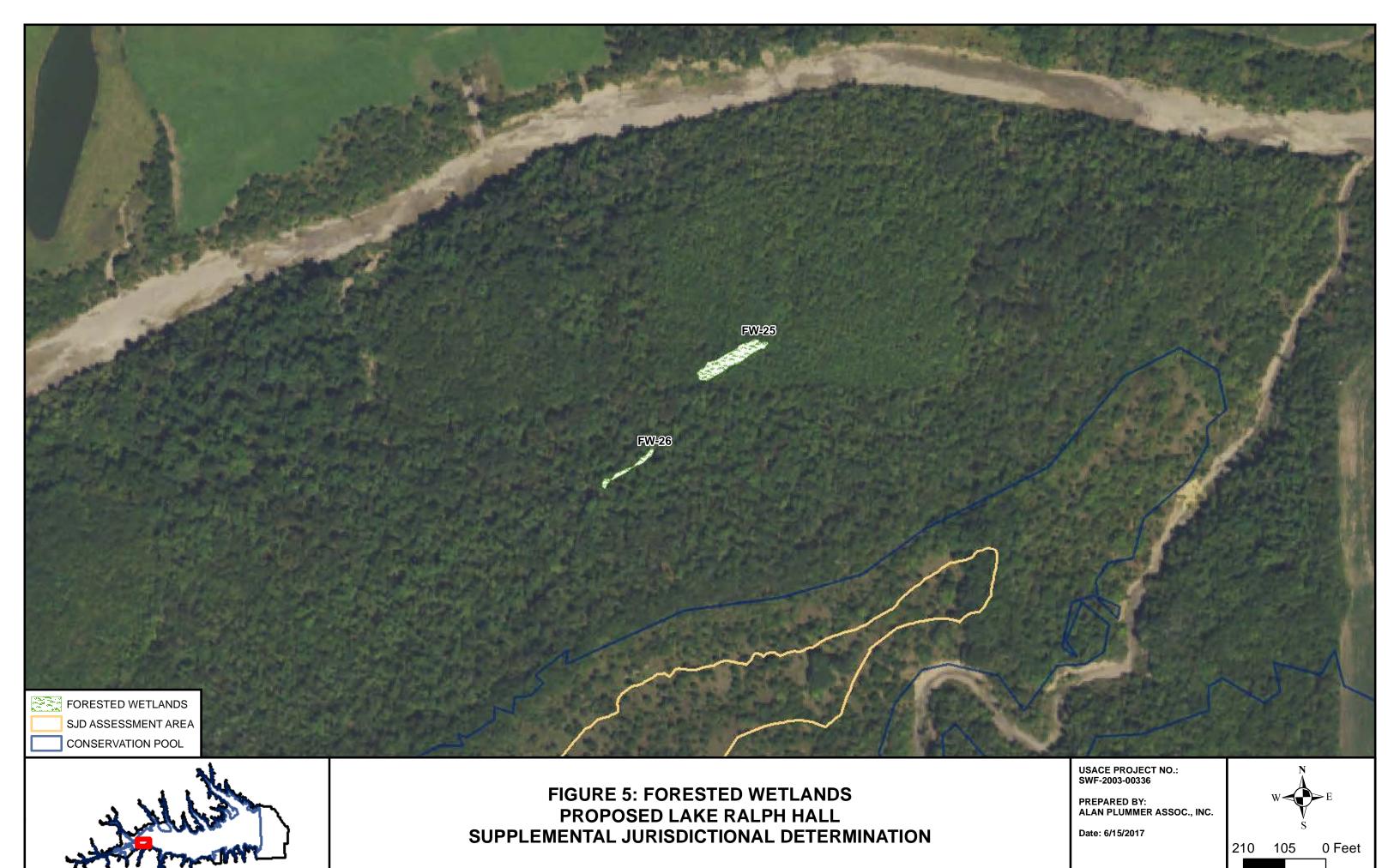
FIGURE 4: FORESTED WETLANDS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION USACE PROJECT NO.: SWF-2003-00336

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017



370 185 0 Feet



APPENDIX C WETLAND DETERMINATION DATA FORMS

MAPBOOK WETLAND DETERMINATION SAMPLING LOCATIONS





FIGURE 1: WETLAND DETERMINATION DATA FORMS **SAMPLING LOCATIONS** PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017





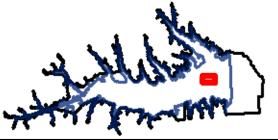


FIGURE 2: WETLAND DETERMINATION DATA FORMS **SAMPLING LOCATIONS** PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

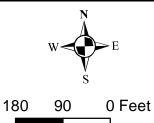






FIGURE 3: WETLAND DETERMINATION DATA FORMS
SAMPLING LOCATIONS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

USACE PROJECT NO.: SWF-2003-00336

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017



410 205 0 Feet

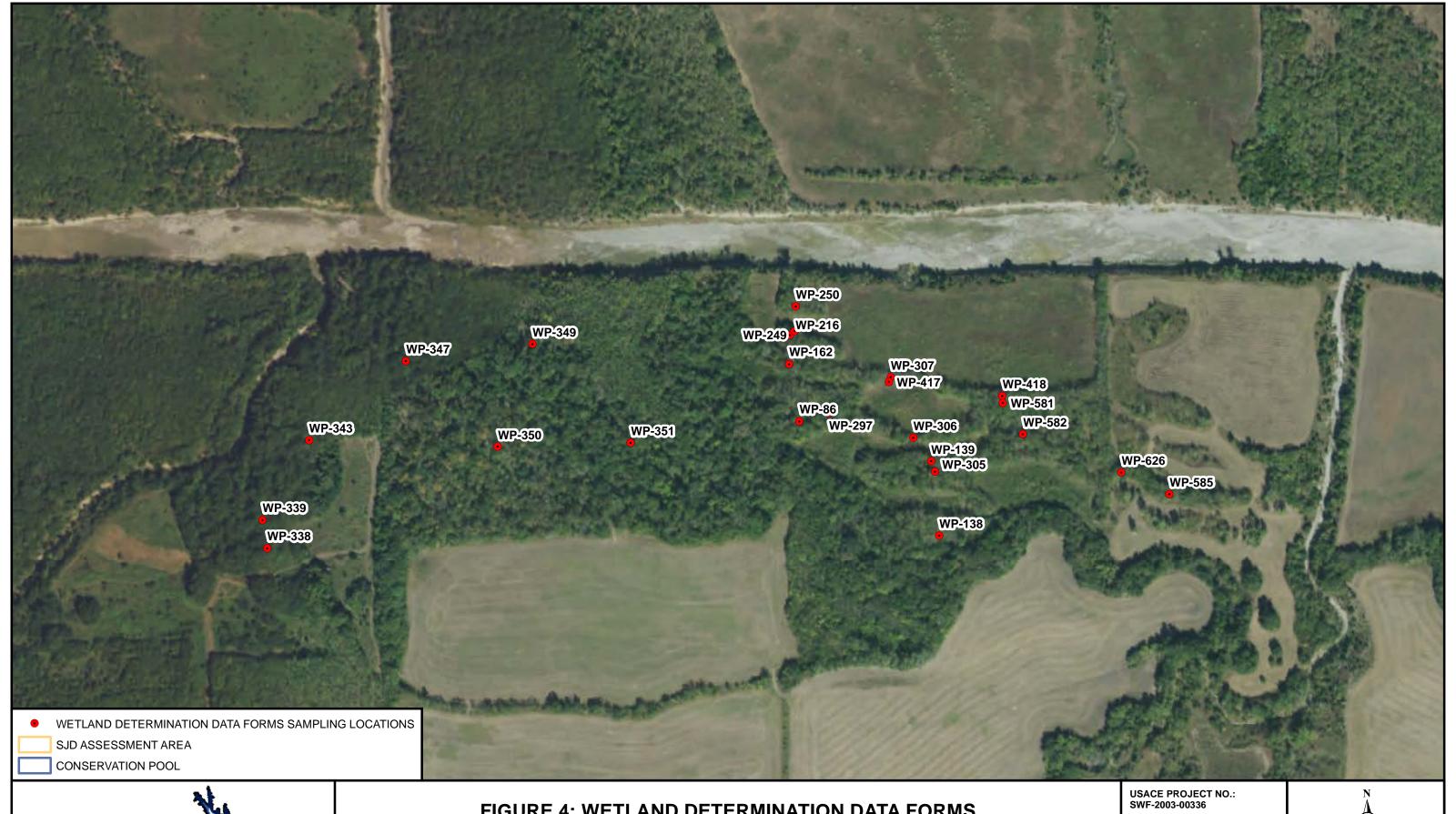




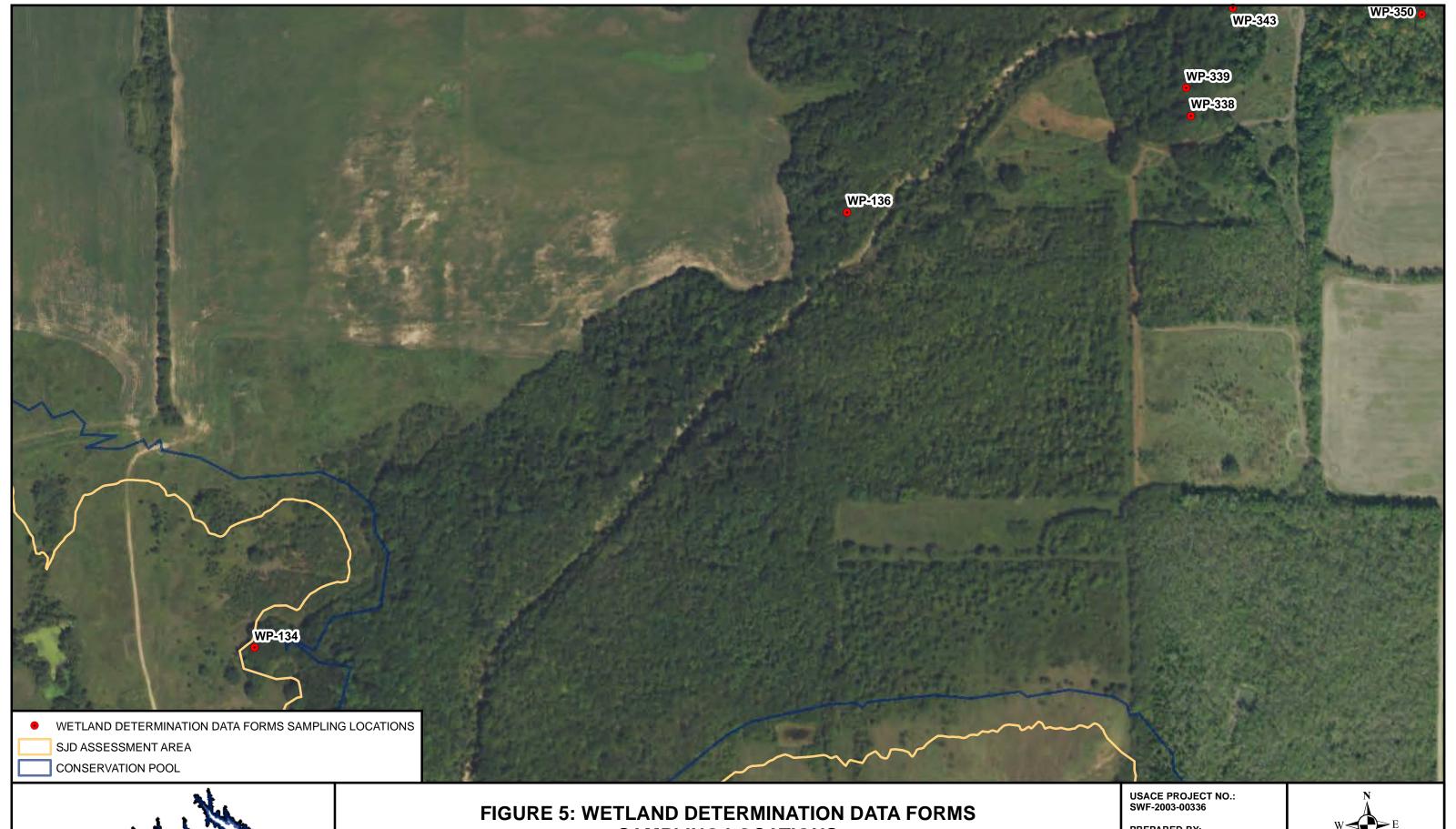
FIGURE 4: WETLAND DETERMINATION DATA FORMS
SAMPLING LOCATIONS
PROPOSED LAKE RALPH HALL
SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017



330 165 0 Feet



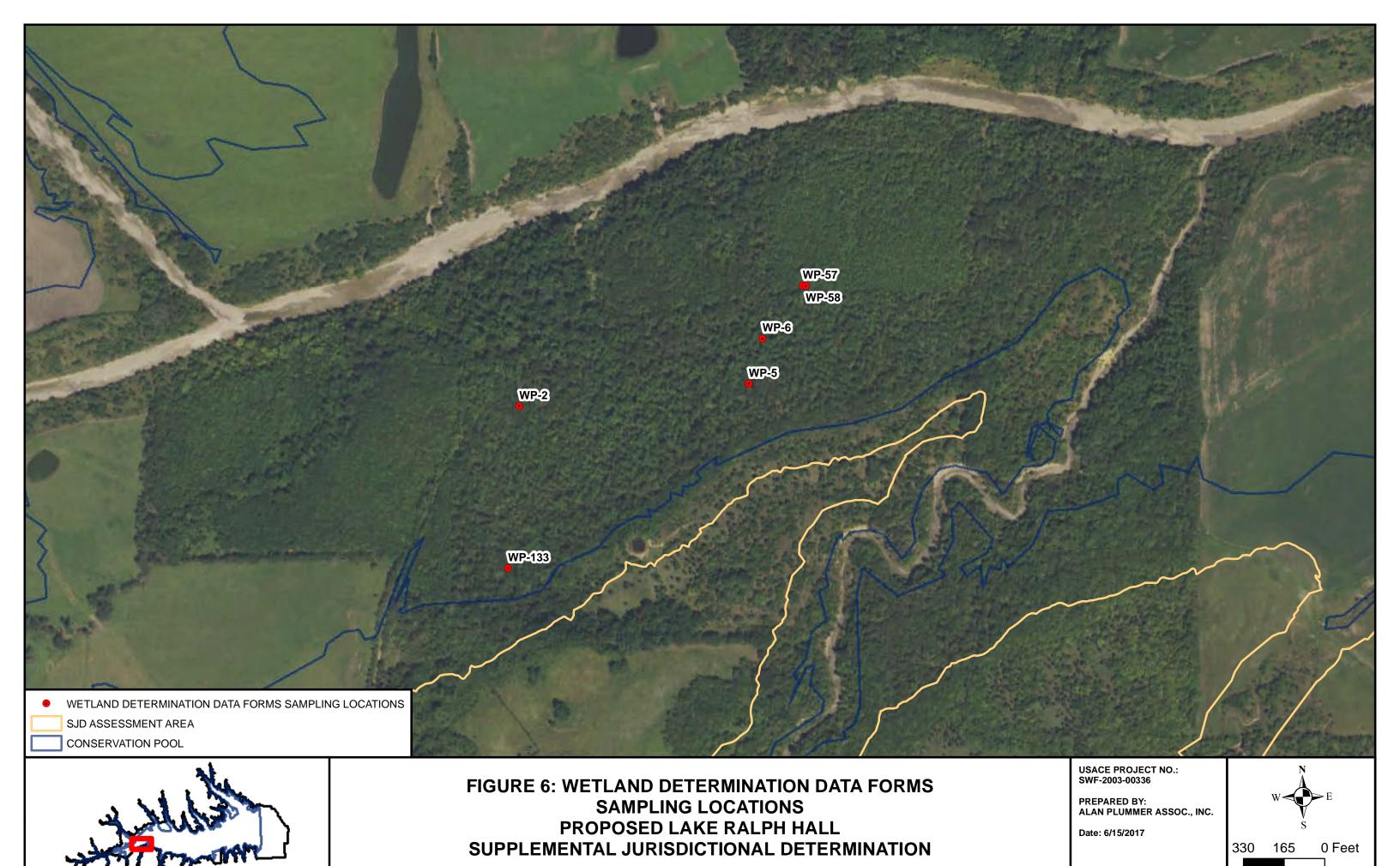


SAMPLING LOCATIONS PROPOSED LAKE RALPH HALL SUPPLEMENTAL JURISDICTIONAL DETERMINATION

PREPARED BY: ALAN PLUMMER ASSOC., INC.

Date: 6/15/2017







WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: Lake Ralph Hall	t/Site: Lake Ralph Hall City/County: Ladonia/Fannin Sampling Date: 6/2/2017							
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Samplin	Sampling Point: WP2				
Investigator(s): Jason Voight, Andrew Sample		Section, T	ownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Valley	ef (concave,	convex, none): Concave						
Subregion (LRR): Southwest Prairies	Lat: 33.4	15226		Long: -96.01460 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 ve							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No	
Are Vegetation, Soil _X _, or Hydrology				eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site ma							res, etc	
Hydrophytic Vegetation Present? Yes X	No		(l 0 l l	14				
Hydric Soil Present? Yes	No X		the Sampled thin a Wetlar		No	NoX		
Wetland Hydrology Present? Yes	No X	WII	uiiii a vveuai	iu: 165	NO	_ NO <u>^</u>		
Remarks:								
Heavy storms the previous day; wood VEGETATION – Use scientific names of pla		- Ioai iv		TIGI TRIVET GHAIIIR	,ı			
700 #	Absolute		nt Indicator	Dominance Test work	sheet:			
Tree Stratum (Plot size: 700 sq ft)	% Cover 20	Species Yes	? Status FAC	Number of Dominant S	•			
Fraxinus pennsylvanica Ulmus crassifolia	25	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	4	(A)	
3. Celtis laevigata	45	Yes	FAC				_	
4. Malcura pomifera	5	No	FACU	Total Number of Domir Species Across All Stra		5	(B)	
	95	= Total C	over				_ , ,	
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- rotar o	0101	Percent of Dominant S That Are OBL, FACW,		80	(A/B)	
1. Fraxinus pennsylvanica	5	No	FAC	Prevalence Index wor	kahaati			
2. Celtis laevigata		No	FAC	Total % Cover of:		Multiply by:		
3. Ulmus crassifolia	<u>5</u> 3	No No	FACU UPL	OBL species				
Juniperus virginiana Symphoricarpos orbiculatus	<u>3</u>	No No	FACU	FACW species				
5. Symphonicarpos dibiculatus		-		FAC species				
Herb Stratum (Plot size: 450 sq ft	20	= Total C	over	FACU species		4 =		
1. Elymus virginicus	50	Yes	FAC	UPL species				
2. Toxicodendron radicans	15	No	FACU	Column Totals:	(A	·)	(B)	
3. Torillis arvensis	10	No	UPL	Prevalence Index	, _ B/A _			
4. Carex planostachys	25	Yes	UPL	Hydrophytic Vegetati				
5				1 - Rapid Test for				
6				2 - Dominance Tes		-		
7				3 - Prevalence Ind	ex is ≤3.0	1		
8				4 - Morphological				
9		-		data in Remark		•	,	
10		= Total C	over	Problematic Hydro	phytic Ve	getation' (Exp	olain)	
Woody Vine Stratum (Plot size: 450 sq ft)		- Total C	0.401	¹ Indicators of hydric so			y must	
1. Toxicodendron radicans	5	No	FACU	be present, unless dist	urbed or p	oroblematic.		
2. Smilax sp.	2	No	FAC	Hydrophytic				
0/ Page Cround in Horb Strature 0	7	= Total C	over	Vegetation Present? Ye	s X	No		
% Bare Ground in Herb Stratum 0 Remarks:				1			•	

US Army Corps of Engineers Great Plains – Version 2.0

SOIL Sampling Point: WP2

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix			x Feature	S1	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/2	100					Clay	
					. '			
·					· ——		·	_
							· 	
	-			-				
1								
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all L	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
Black Hi	en Sulfide (A4)			d Matrix (S Mucky Mir	,		=	s Depressions (F16)
	d Layers (A5) (LRR	E)		Gleyed Ma			_	l outside of MLRA 72 & 73)
	ick (A9) (LRR F, G			d Matrix (_ `	Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	,			urface (F7))		ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Exp	olain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G,	H) High Pla	ains Depre	essions (F	16)	³ Indicators of h	ydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(ML	RA 72 & 1	73 of LRR	R H)	wetland hy	drology must be present,
							unless dist	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:								V
Depth (ind	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:								
No redox	c features; Ti	inn clay, o	occasionally	floode	ed is na	ationall	ly listed hydr	ic soil; naturally dark soil
HYDROLO								
_	drology Indicators							
-	cators (minimum of	one required;						ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surface	Soil Cracks (B6)
<u> </u> High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)		Sparsel	y Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainag	e Patterns (B10)
Water M	arks (B1)		Dry-Seaso	n Water 7	Γable (C2)		U Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		U Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wher	e tilled)
☐ Drift Dep	oosits (B3)		(where	not tilled)			Crayfish	n Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)	Saturati	on Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		Thin Muck	Surface ((C7)		Geomoi	rphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B7)	Other (Exp	olain in Re	emarks)		☐ FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-He	eave Hummocks (D7) (LRR F)
Field Observ	vations:							
Surface Water	er Present?	Yes N	o X Depth (in	ches):				
Water Table			o X Depth (in					
Saturation P			o X Depth (in				land Hydrology Pr	resent? Yes NoX
(includes cap	oillary fringe)							
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
Remarks:								













Project/Site: Lake Ralph Hall Supplemental JD	(annin			7
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Samplinç	Point: WP3	
Investigator(s): Jason Voight, Andrew Sample	;			nge:			
Landform (hillslope, terrace, etc.): Valley						Slope (%)	. 0-1%
				Long: -95.89972 Datum: NAD83			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for the							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"		Yes X N	lo
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answe		<u></u>	
SUMMARY OF FINDINGS – Attach site map							s, etc.
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes X	No		the Sampled				
Wetland Hydrology Present? Yes X	No	W	ithin a Wetlar	nd? Yes _ ^_	No		
Remarks:							
Forested wetland, part of the remnant	North Su	ılphur	River cha	annel; not hyrauli	cally or	hydrolog	ically
connected to any stream channel							
VEGETATION – Use scientific names of pla	nte						
VEGETATION 030 3010110110 Harries of plan	Absolute	Domina	ant Indicator	Dominance Test work	(sheet:		
Tree Stratum (Plot size: 700 sq ft)			s? Status	Number of Dominant S			
1. Fraxinus pennsylvanica	90	Yes	FAC	That Are OBL, FACW,		1	(4)
2. Populus deltoides	5	No	FAC	(excluding FAC-):	,	1	(A)
3				Total Number of Domir		1	(D)
4	05			Species Across All Stra	ata:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	95	= Total (Cover	Percent of Dominant S		100	(A /D)
1. Fraxinus pennsylvanica	5	No	FAC	That Are OBL, FACW,	OI FAC:		(A/B)
2. Celtis laevigata	2	No	FAC	Prevalence Index wor	ksheet:		
3. Carya ovata	1	No	FACU	Total % Cover of:			
4				OBL species			
5				FACW species			
Hart Overton (Bladering 450 sq.ft	8	= Total (Cover	FAC species FACU species		_	_
Herb Stratum (Plot size: 450 sq ft 1. Lolium multiflorum	5	No	UPL	UPL species		1 = 5 <i>-</i>	_
2 Ranunculus hispidus	- 1	No	FACW	Column Totals:			
3. Torillis arvensis	1	No	UPL	Column Foldio.	(/,/		_ (5)
4. Ambrosia trifida	1	No	FAC	Prevalence Index			_
5.				Hydrophytic Vegetation			
6.				1 - Rapid Test for I		•	
7							
8				3 - Prevalence Ind 4 - Morphological		o ¹ (Provide our	norting
9				data in Remark	s or on a s	s (Frovide sup separate sheet))
10	•			Problematic Hydro	phytic Veg	getation ¹ (Expla	ain)
Woody Vine Stratum (Plot size: 450 sq ft)	8	= Total (Cover	¹ Indicators of hydric so	il and wetl:	and hydrology	must
1				be present, unless dist			muot
2.				Hydrophytic			
	0	= Total (Cover	Vegetation	. X	Na	
% Bare Ground in Herb Stratum 92				Present? Ye	» <u> </u>	No	
Remarks:							

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence of	indicators.)
Depth	Matrix			ox Feature	es	0	<u> </u>	_
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	90	10 YR 4/6	10	С	M	Clay	
						-		
·	-							
					_	_		
	-							
1- 0.0							2,	
	oncentration, D=Dep					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed M				k (A9) (LRR I, J)
Black Hi	oipedon (A2)			Redox (Sad Matrix (irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
	n Sulfide (A4)			Mucky M	,	١	_	ns Depressions (F16)
	Layers (A5) (LRR	F)		Gleyed M		'	_	d outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,			ed Matrix			`	Vertic (F18)
	d Below Dark Surfac			Dark Surf	. ,			nt Material (TF2)
Thick Da	ark Surface (A12)		Deplet	ed Dark S	urface (F7	7)	Very Shal	low Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		<u></u> Redox	Depression	ons (F8)		Other (Ex	plain in Remarks)
	Mucky Peat or Peat			lains Depi	•	,		nydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(M	LRA 72 &	73 of LR	R H)		/drology must be present,
	(16						unless dis	turbed or problematic.
	_ayer (if present):							
Type:								v
Depth (inc	ches):						Hydric Soil Pre	esent? Yes X No No
Remarks:								
Redox fe	atures observ	ed; linn	clay, occasio	nally flo	oded i	is natio	nally listed hy	dric soil; naturally dark soil
	CV							
HYDROLO								
-	drology Indicators							
-	cators (minimum of o	one required						Indicators (minimum of two required)
Surface	Water (A1)		Salt Crus	t (B11)			Surface	e Soil Cracks (B6)
High Wa	iter Table (A2)		Aquatic II	nvertebrat	es (B13)			ly Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydroger	Sulfide C	odor (C1)		☐ Drainaو	ge Patterns (B10)
	arks (B1)		Dry-Seas	on Water	Table (C2	2)	U Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		U Oxidized	Rhizosph	eres on Li	ving Roots	(C3) (whe	re tilled)
☐ Drift Dep	oosits (B3)		(where	not tilled)		Crayfis	h Burrows (C8)
│	at or Crust (B4)			of Reduc		(4)	☐ Saturat	ion Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		Thin Muc	k Surface	(C7)			rphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B	7) \square Other (E)	plain in R	emarks)		☐ FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)
Field Obser								
Surface Wate			No X Depth (ii					
Water Table	Present?	/es	No X Depth (ii	nches):				
Saturation P	resent?		No X Depth (ii				tland Hydrology P	resent? Yes X No No
(includes cap							if available.	
Describe Ke	corded Data (strean	ı gauge, mo	mitoring well, aerial	priotos, p	revious in	spections)	, ii available:	
Remarks:								
Ī								









Project/Site: Lake Ralph Hall Supplemental JD		City/Co	ounty: Lac	donia/F	annin	Samplin	g Date: 5/30/1	7	
Applicant/Owner: Upper Trinity Regional Water District					State: TX	Samplin	ampling Point: WP4		
Investigator(s): Jason Voight, Andrew Sample					nge:				
Landform (hillslope, terrace, etc.): Valley		Local	relief (con	icave, o	convex, none): Concave		Slope (%): <u>0-1%</u>	
Subregion (LRR): Southwest Prairies	Lat: 33.4	45900			Long: <u>-95.89973</u>		Datum: NA	AD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded					NWI classification: none				
Are climatic / hydrologic conditions on the site typical for									
Are Vegetation, Soil, or Hydrology					"Normal Circumstances" p			No	
Are Vegetation, SoilX, or Hydrology					eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site ma								es, etc.	
Hydrophytic Vegetation Present? Yes	No X		Is the Sa	mnled	I Area				
Hydric Soil Present? Yes	No X		within a	-		No	Χ		
Wetland Hydrology Present? Yes	No X								
Remarks: Outside of forested wetland from sam	npling poir	nt WF	P3						
VEGETATION – Use scientific names of pl					1 -				
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		inant Indi ies? Sta		Dominance Test work				
1. Fraxinus pennsylvanica	35	Yes			Number of Dominant S That Are OBL, FACW,				
2. Ulmus americana	15	No	FA(<u> </u>	(excluding FAC-):		1	_ (A)	
3					Total Number of Domin		2	<i>(</i> =)	
4		-			Species Across All Stra	ta:	2	_ (B)	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	50	= Tota	l Cover		Percent of Dominant Sp		50	(A /D)	
1. Fraxinus pennsylvanica	5	No	FA(С	That Are OBL, FACW,	or FAC:		_ (A/B)	
2. Celtis laevigata	2	No	FA	0	Prevalence Index wor	ksheet:			
3. Carya ovata	1	No	FA	CU	Total % Cover of:				
4							$1 = \frac{0}{0}$		
5					FACW species 0 FAC species 57		3 = 171		
Herb Stratum (Plot size: 450sq ft)	8	= Tota	l Cover			x			
1. Lolium multiflorum	95	Ye	s UP	L		x	5 = ⁴⁸⁵		
2. Setaria italica	2	No	o FA	CU	Column Totals: 158			(B)	
3. Torillis arvensis	2	No	o UP	L			4.25		
4. Amaranthus sp,	1	Nc	FAC	CU	Prevalence Index				
5					Hydrophytic Vegetation 1 - Rapid Test for H				
6					2 - Dominance Tes		•		
7					3 - Prevalence Inde				
8					4 - Morphological A	Adaptation	ns¹ (Provide su	pporting	
9					data in Remarks				
10	400		I Cover		Problematic Hydro	phytic Ve	getation' (Expl	ain)	
Woody Vine Stratum (Plot size: 450 sq ft) 1		•			¹ Indicators of hydric soi be present, unless distu			must	
2.					Hydrophytic				
	0				Vegetation	6	No_X		
% Bare Ground in Herb Stratum 0 Remarks:					Present? Ye	<u> </u>	NO _^_		
remand.									

Profile Desc	ription: (Describ	e to the dept	needed to docur	nent the	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature	S1	. ?	-	.
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/1	100					Clay	
					. '			
·					· ——			_
	-				·			
1- 0.0							. 2	
			Reduced Matrix, CS			ed Sand G		on: PL=Pore Lining, M=Matrix.
_		licable to all L	RRs, unless other				_	Problematic Hydric Soils ³ :
Histosol	, ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3) n Sulfide (A4)			d Matrix (S	neral (F1)		=	ace (S7) (LRR G)
	d Layers (A5) (LRI	D E\		Gleyed M	, ,		_	s Depressions (F16) I outside of MLRA 72 & 73)
	ick (A9) (LRR F, G			d Matrix (_ `	Vertic (F18)
	d Below Dark Surf			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	200 (7111)			urface (F7))		ow Dark Surface (TF12)
	lucky Mineral (S1)			Depressio	` '	,		plain in Remarks)
	Mucky Peat or Pea				essions (F	16)		ydrophytic vegetation and
	icky Peat or Peat	. , ,	—		73 of LRR	,		drology must be present,
							unless dis	turbed or problematic.
Restrictive I	_ayer (if present)							
Type:								
Depth (inc	ches):						Hydric Soil Pre	esent? Yes No _X
Remarks:								
No redox	cfeatures; T	inn clay,	occasionally	floode	ed is na	ationall	ly listed hydr	ic soil; naturally dark soil
HYDROLO	GY							
Wetland Hyd	drology Indicator	s:						
Primary Indic	cators (minimum o	f one required;	check all that appl	y)			Secondary I	ndicators (minimum of two required)
-	Water (A1)		☐ Salt Crust				Surface	Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			y Vegetated Concave Surface (B8)
Saturation	` ,		Hydrogen		, ,			e Patterns (B10)
	arks (B1)		Dry-Seaso				`	d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F		, ,			e tilled)
	posits (B3)			not tilled)		9	· · ·	n Burrows (C8)
111	at or Crust (B4)		Presence	,		4)		on Visible on Aerial Imagery (C9)
"	osits (B5)		Thin Muck			1)	_	rphic Position (D2)
	on Visible on Aeria	al Imagery (R7)	_		. ,			eutral Test (D5)
_	tained Leaves (B9		Other (Ex	Jani III IX	iliaiks)			eave Hummocks (D7) (LRR F)
Field Observ	•)				1	<u> </u>	eave Hummocks (D1) (ERR 1)
Surface Water		Voc.	lo X Depth (in	oboo):				
Water Table			lo x Depth (in					Y
Saturation P		Yes N	lo x Depth (in	ches):		Wetl	land Hydrology Pr	resent? Yes NoX
(includes cap Describe Red		ım gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections).	. if available:	
	(5	5 5	5 : ,			, ,		
Remarks:								
iveiliaiks.								





Project/Site: Lake Ralph Hall Supplemental JD		City/Cour	nty: Ladonia/F	annin	Samplin	g Date: 6/2/20	17
Applicant/Owner: Upper Trinity Regional Water District			-	State: TX	Samplin	g Point: WP5	
Investigator(s): Jason Voight, Andrew Sample				nge:			
Landform (hillslope, terrace, etc.): Valley				=		Slope (%): 0-1%
				Long: <u>-96.01153</u>			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							es. etc
					, ,		
Hydrophytic Vegetation Present? Hydric Soil Present? Yes X Yes	No X		the Sampled		N1-	Y	
Wetland Hydrology Present? Yes	No X	W	ithin a Wetlar	nd? Yes	No		
Remarks:							
VEGETATION – Use scientific names of pl		Davis		I Danis Tarkan	la la a d		
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		ant Indicator s? Status	Dominance Test work			
1. Fraxinus pennsylvanica / Ulmus americana	5/5	No/No	FAC/FAC	Number of Dominant S That Are OBL, FACW,			
2. Ulmus crassifolia	15	Yes	FAC	(excluding FAC-):		4	_ (A)
3. Celtis laevigata	30	Yes	FAC	Total Number of Domi	nant	_	
4. Maclura pomifera	15	Yes	FACU	Species Across All Str.	ata:	5	_ (B)
700 sq.ft	70	= Total C	Cover	Percent of Dominant S	pecies		
Sapling/Shrub Stratum (Plot size: 700 sq ft) 1. Celtis laevigata	5	No	FAC	That Are OBL, FACW,	or FAC:	80	_ (A/B)
Maclura pomifera		No	FACU	Prevalence Index wo	rksheet:		
3. Ulmus crassifolia		No	FAC	Total % Cover of:		Multiply by:	
4				OBL species	x	1 =	
5.				FACW species	x	2 =	
0.	20	= Total C	Cover	FAC species	x	3 =	
Herb Stratum (Plot size: 450 sq ft)				FACU species	x	4 =	
1. Elymus virginicus	10	No	FAC	UPL species			
2. Ptilimnium nutalli	15	Yes	FACW	Column Totals:	(A	<u> </u>	(B)
3. Amaranthus tuberculatus	20	Yes	FAC	Prevalence Index	× = B/A =		
4. Viola missouriensis	5	No	FACW	Hydrophytic Vegetati			
5				1 - Rapid Test for			
6				2 - Dominance Te	st is >50%	,	
7				3 - Prevalence Inc	lex is ≤3.0	1	
8 9				4 - Morphological	Adaptation	ns ¹ (Provide su	pporting
10.				data in Remark			
10.		= Total C	Cover	Problematic Hydro	phytic Ve	getation (Expl	aın)
Woody Vine Stratum (Plot size: 450 sq ft)		_ rotar c	JOV61	¹ Indicators of hydric so			must
1. Parthenocissus quinquefolia	5	No	FACU	be present, unless dist	urbed or p	problematic.	
2				Hydrophytic			
% Bare Ground in Herb Stratum ⁵⁰	5	= Total C	Cover	Vegetation Present? Ye	es X	No	
Remarks:				1		· · · · · · · · · · · · · · · · · · ·	

Profile Desc	cription: (Describ	e to the depth	n needed to docu	ment the i	ndicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Features	4		-	5
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/1	100					Clay	
				_				
	oncentration, D=D					d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	licable to all L	RRs, unless other	rwise note	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5			_	irie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,		_	ace (S7) (LRR G)
	en Sulfide (A4)	. E.		Mucky Mir			_	s Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G	,		Gleyed Ma ed Matrix (I			_ `	I outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	400 (7111)	_	ed Dark Su	. ,			low Dark Surface (TF12)
_	/lucky Mineral (S1)			Depression	, ,			plain in Remarks)
2.5 cm N	Mucky Peat or Pea	t (S2) (LRR G	, H) 🔲 High Pl	ains Depre	essions (F	16)	³ Indicators of h	nydrophytic vegetation and
5 cm Μι	ucky Peat or Peat ((S3) (LRR F)	(MI	RA 72 & 7	73 of LRR	H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive	Layer (if present)	:						
Type:								V
Depth (in	ches):						Hydric Soil Pre	esent? Yes No _X
Remarks:								
No redev	. fo otumo o . T	يرمام مرمرا		flaada	ما:م	الممائد	سامينا اممهما	::
ino redox	x reatures; i	inn clay,	occasionally	noode	ed is na	ationali	y iistea nyar	ic soil; naturally dark soil
HYDROLO	GY							
	drology Indicator	s.						
_	cators (minimum o		check all that ann	lv)			Secondary I	ndicators (minimum of two required)
	Water (A1)	r one required,	Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			vertebrate	s (B13)			ly Vegetated Concave Surface (B8)
Saturation	` '		_	Sulfide O	. ,			ge Patterns (B10)
	larks (B1)			on Water T				d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe				re tilled)
	posits (B3)			not tilled)		g . tooto	—	n Burrows (C8)
1 1 1	at or Crust (B4)			of Reduce		1)		ion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			s Surface (.,		rphic Position (D2)
ı —	on Visible on Aeria	al Imagery (B7)		plain in Re				eutral Test (D5)
	tained Leaves (B9			,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			eave Hummocks (D7) (LRR F)
Field Obser	,	,						. , , , ,
Surface Wat	er Present?	Yes N	o X Depth (ir	ches):				
Water Table			o X Depth (ir					
Saturation P			o X Depth (ir				and Hydrology P	resent? Yes NoX
(includes car	oillary fringe)							100
Describe Re	corded Data (strea	am gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:		<u> </u>						
l								







Project/Site: Lake Ralph HallSupplemental JD		City/Coun	ty: Ladonia/F	annin	Sampling	g Date: 6/2/20)17		
Applicant/Owner: Upper Trinity Regional Water District State: TX Sampling Point: WP6									
Investigator(s): Jason Voight, Andrew Sample		Section, 1	Гownship, Ra	nge:					
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave		Slope (%	o): <u>0-1%</u>		
Subregion (LRR): Southwest Prairies				Long: <u>-96.01133</u>					
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi					
Are climatic / hydrologic conditions on the site typical for	this time of ve								
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	Νο		
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe					
SUMMARY OF FINDINGS – Attach site ma							es, etc		
	No								
Hydric Soil Present? Yes X			the Sampled						
Wetland Hydrology Present? Yes X	No	Wi	thin a Wetlaı	nd? Yes X	No				
Remarks:		I							
Heavy storms the previous day; fores VEGETATION – Use scientific names of pl		nd in w	vooded a	rea near North S	ulphur	River cha	annel		
TEGET/THON GOO COLORISMO HAMICO OF PI	Absolute	Domina	nt Indicator	Dominance Test work	ksheet:				
Tree Stratum (Plot size: 700 sq ft)			? Status	Number of Dominant S					
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW,		3	(4)		
2. Ulmus crassifolia	15	Yes	FAC	(excluding FAC-):			_ (A)		
3. Celtis laevigata	5	No	FAC	Total Number of Domin		3	(D)		
4				Species Across All Stra	ata:		_ (B)		
Sapling/Shrub Stratum (Plot size: 700 sq ft	65	= Total C	over	Percent of Dominant S		100	(A /D)		
1. Cercis canadensis	10	No	UPL	That Are OBL, FACW,	or FAC:	100	_ (A/B)		
2. Fraxinus pennsyvanica	20	Yes	FAC	Prevalence Index wo	rksheet:				
3. Ulmus crassifolia	10	No	FAC	Total % Cover of:		Multiply by:			
4.				OBL species					
5				FACW species					
450 og #	40	= Total C	over	FAC species					
Herb Stratum (Plot size: 450 sq ft) 1. Elymus virginicus	5	No	FAC	FACU species		4 =			
Carex blanda	2	No	FAC	UPL species Column Totals:					
	_			Column Totals.	(^)	(D)		
3 4				Prevalence Index	κ = B/A =				
5.				Hydrophytic Vegetati					
6.				1 - Rapid Test for		•			
7.				2 - Dominance Te					
8.				3 - Prevalence Ind					
9				4 - Morphological data in Remark					
10				Problematic Hydro		•	,		
450 00 #	7	= Total C	over	l.		, ,	,		
Woody Vine Stratum (Plot size: 450 sq ft) 1. Parthenocissus quinquefolia	5		FACU	¹ Indicators of hydric so be present, unless dist			/ must		
			FAC						
2	5	Total O		Hydrophytic Vegetation					
% Bare Ground in Herb Stratum 93	-	= Total C	ovei	Present? Ye	esX	No			
Remarks:				1					

Profile Desc	ription: (Describe	to the dep	th needed to docur	ment the	indicator	or confirn	n the absence of ir	ndicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-2	10 YR 3/1	100					Clay	
2-18	10 YR 3/1	95	10 YR 5/4	5	С	М	Clay	
								_
								_
<u> </u>								
				_				
	-							
1- 0.0							2,	
			=Reduced Matrix, CS			ed Sand G		n: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless other				_	Problematic Hydric Soils ³ :
Histosol				Gleyed Ma				(A9) (LRR I, J)
	pipedon (A2)			Redox (St				rie Redox (A16) (LRR F, G, H)
Black His	, ,			d Matrix (S	,			ce (S7) (LRR G)
	n Sulfide (A4) I Layers (A5) (LRR	E/		Gleyed M	neral (F1)		_	Depressions (F16) outside of MLRA 72 & 73)
	ck (A9) (LRR F, G ,			ed Matrix (Reduced V	· · · · · · · · · · · · · · · · · · ·
	Below Dark Surface	,		Dark Surfa				t Material (TF2)
	ark Surface (A12)) (/ t i i)	_		urface (F7))		ow Dark Surface (TF12)
	lucky Mineral (S1)			Depressio				lain in Remarks)
	lucky Peat or Peat	(S2) (LRR (•	essions (F	16)		drophytic vegetation and
_	cky Peat or Peat (S		· · · —		73 of LRR	,		drology must be present,
							unless dist	urbed or problematic.
Restrictive L	ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:	, -							
Redox fe	atures presen	it: Tinn d	clay, occasiona	ally floo	oded is	nation	ally listed hyd	ric soil; naturally dark soil
		-,		, -				
HYDROLO	GY							
Wetland Hvo	drology Indicators	:						
_			d; check all that appl	v)			Secondary In	dicators (minimum of two required)
Surface		ono roquiro	Salt Crust					Soil Cracks (B6)
	ter Table (A2)		Aquatic In		o (P12)			Vegetated Concave Surface (B8)
Saturation	,		Hydrogen		. ,			e Patterns (B10)
	` '						i i	Rhizospheres on Living Roots (C3)
 	arks (B1)		Dry-Seaso		, ,			1 0 1
	t Deposits (B2)		Oxidized F			ing Roots		e tilled)
	posits (B3)			not tilled)		4)		Burrows (C8)
"	t or Crust (B4)		Presence		•	4)	_	on Visible on Aerial Imagery (C9)
	osits (B5)	. (5)	Thin Muck		. ,			phic Position (D2)
_	on Visible on Aerial	Imagery (B	7) U Other (Exp	olain in Re	emarks)			utral Test (D5)
	tained Leaves (B9)						Frost-He	ave Hummocks (D7) (LRR F)
Field Observ		. Y			-2			
Surface Wate			No Depth (in		<2	<u> </u>		
Water Table			No Depth (in		0	_		V
Saturation Pr		res X	No Depth (in	ches):	0	Wetl	land Hydrology Pre	esent? Yes X No No
(includes cap		aguae ma	onitoring well, aerial	nhotos ni	rovious ins	noctions)	if available:	
Describe Ke	orueu Data (Stream	ı yauy e , m	omorning well, aerial	ριτυίυδ, βί	evious INS	ρ ο υιιστιδ),	ıı avallable.	
Remarks:								
i								













Project/Site: Lake Ralph Hall Supplemental JD	(City/Cour	nty: Ladonia/F	annin	Sampling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District				State: TX	
Investigator(s): Jason Voight, Andrew Sample				inge:	
Landform (hillslope, terrace, etc.): Valley		Local rel	lief (concave,	convex, none): Concave	Slope (%): 0-1%
					Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifica	
Are climatic / hydrologic conditions on the site typical for th					
Are Vegetation, Soil, or Hydrology					resent? Yes X No
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answers	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes 1	No X				
Hydric Soil Present? Yes 1			the Sampled ithin a Wetlar		No X
Wetland Hydrology Present? Yes 1		l w	illilli a Wellai	nur res	NO <u>^</u>
Remarks:					
Remnant former North Sulphur River chann					
still depressionally feature; not hydraulically	or hydrol	logicall	ly connecte	ed to existing North	Sulphur River channel
VEGETATION – Use scientific names of plan	nts				
VEGETATION – Use scientific fiames of plan	Absolute	Domino	ant Indicator	Dominance Test works	choot:
Tree Stratum (Plot size: 700 sq ft)			s? Status	Number of Dominant Sp	
1. Salix nigra	50	Yes	FACW	That Are OBL, FACW, o	or FAC
2				(excluding FAC-):	<u>1</u> (A)
3				Total Number of Domina	ant
4				Species Across All Strat	a: <u>2</u> (B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	50	= Total C	Cover	Percent of Dominant Sp	
				That Are OBL, FACW, o	or FAC: <u>50%</u> (A/B)
1 2				Prevalence Index work	sheet:
3.				Total % Cover of:	
4					x 1 = 0
5.					x 2 = 100
	0	= Total C	Cover		x 3 = 60
Herb Stratum (Plot size: 450 sq ft				FACU species 20	$x 4 = \frac{80}{250}$
1. Lolium multiflorum		Yes	UPL FAC		x = 5 = 250
2. Rumex altissimus 3. Helianthus annuus	10	No No	FACU	Column Totals: 140	(A) <u>490</u> (B)
Setaria parviflora	10	No	FAC	Prevalence Index	= B/A = 3.5
5. Rudbeckia hirta	10	No	FACU	Hydrophytic Vegetation	n Indicators:
6				1 - Rapid Test for H	ydrophytic Vegetation
7				2 - Dominance Test	is >50%
8				3 - Prevalence Inde	
9				4 - Morphological Adda in Romarks	daptations ¹ (Provide supporting or on a separate sheet)
10					hytic Vegetation ¹ (Explain)
450 6	90	= Total C	Cover		
Woody Vine Stratum (Plot size: 450 sq ft) 1				'Indicators of hydric soil be present, unless distu	and wetland hydrology must rbed or problematic.
2				Hydrophytic	
	0			Vegetation Present? Yes	s No_X
				. resent: Tes	140
Remarks:	ا المستعمد	:Ha -!			
Remnant channel located within field r	ecently t	illed			

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature	S1		_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	90					Clay	
	-					-		
				_				
	-			-				
1- 0.0							2, 2,	
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	ndicators: (Appli	cable to all Li					_	Problematic Hydric Soils ³ :
Histosol	• •			Gleyed Ma				k (A9) (LRR I, J)
Black Hi	pipedon (A2)			Redox (S5 d Matrix (S				irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
	n Sulfide (A4)			Mucky Mir			_	s Depressions (F16)
	Layers (A5) (LRR	F)		Gleyed Ma			_	outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,			d Matrix (_ `	Vertic (F18)
	Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
Thick Da	ark Surface (A12)		Deplete	d Dark Su	ırface (F7))	Very Shall	ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Exp	olain in Remarks)
	Mucky Peat or Peat				essions (F	,		nydrophytic vegetation and
5 cm Mu	cky Peat or Peat (S	83) (LRR F)	(ML	RA 72 & 1	73 of LRR	H)		drology must be present,
	(*6						unless dis	turbed or problematic.
	_ayer (if present):							
Type:								V
1	ches):		<u>—</u>				Hydric Soil Pre	esent? Yes No X
Remarks:								
	.							
No redox	reatures obse	rvea; i inn	i clay, occasi	onally t	looded	is natio	onally listed ny	dric soil; naturally dark soil
HYDROLO	GV							
_	drology Indicators							
-	cators (minimum of	one required;						ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust					Soil Cracks (B6)
	iter Table (A2)		Aquatic In					y Vegetated Concave Surface (B8)
Saturatio			Hydrogen		, ,			ge Patterns (B10)
	arks (B1)		Dry-Seaso					d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F			ing Roots		re tilled)
	oosits (B3)			not tilled)				n Burrows (C8)
"	t or Crust (B4)		Presence			1)		ion Visible on Aerial Imagery (C9)
	osits (B5)		Thin Muck		. ,			rphic Position (D2)
	on Visible on Aerial	Imagery (B7)	U Other (Exp	olain in Re	emarks)			eutral Test (D5)
	tained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)
Field Observ			v					
Surface Water			Depth (in					
Water Table			Depth (in					
Saturation Procession (includes cap		Yes No	Depth (in	ches):		Wetl	land Hydrology P	resent? Yes No X
	corded Data (strear	n gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
Remnant	former North	n Sulphur	River chann	nel wes	st of SH	1 34: ni	reviously fille	ed but still depressional
		3.101101				, P		a set can depressional





Project/Site: Lake Ralph Hall Supplemental JD	(City/Count	ty: Ladonia/F	annin S	ampling Date: 5/3	1/2017
Applicant/Owner: Upper Trinity Regional Water District				State: Sa	ampling Point: Wi	P 12
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local relie	ef (concave,	convex, none): Concave	Slope	(%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	5361		Long: <u>-95.94423</u>	Datum:	NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classificati	on: none	
Are climatic / hydrologic conditions on the site typical for thi	s time of year	ar? Yes_	X No_	(If no, explain in Rem	narks.)	
Are Vegetation, Soil, or Hydrologys	significantly of	disturbed?	? Are "	'Normal Circumstances" pres	sent? Yes X	_ No
Are Vegetation, Soil _x, or Hydrology	naturally prol	olematic?	(If ne	eded, explain any answers	in Remarks.)	
SUMMARY OF FINDINGS – Attach site map	showing	sampli	ng point le	ocations, transects, i	mportant feat	ures, etc.
Hydrophytic Vegetation Present? Yes X	lo.					
Hydric Soil Present? Yes N			the Sampled		4	
Wetland Hydrology Present? Yes N		wit	hin a Wetlar	nd? Yes	No _X	
Remarks:		I				
Remnant former North Sulphur River chan	nel locate	d withi	n field we	st of SH 34; has bee	n previously f	illed but
still depressional feature; not hydraulically	or hydrol	ogically	connecte	ed to existing North S	Sulphur River	channel
VEGETATION – Use scientific names of plan						
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		nt Indicator	Dominance Test worksh		
1. Salix nigra	40	Yes	FACW	Number of Dominant Spec That Are OBL, FACW, or I		
2. Celtis laevigata	20	Yes	FAC	(excluding FAC-):	5	(A)
3				Total Number of Dominan	t	
4				Species Across All Strata:	7	(B)
	0.0	= Total Co	over	Percent of Dominant Spec	cies	
Sapling/Shrub Stratum (Plot size: 700 sq ft				That Are OBL, FACW, or		(A/B)
1				Prevalence Index works	heet:	
2				Total % Cover of:	Multiply b	y:
3				OBL species		
4				FACW species	x 2 =	
5	0	= Total Co		FAC species	x 3 =	
Herb Stratum (Plot size: 450 sq ft)	<u> </u>	= Total Ct	ovei	FACU species		
1. Lolium multiflorum	15	Yes	UPL	UPL species		
2. Sorghum halepense	15	Yes	FACU	Column Totals:	(A)	(B)
3. Eleocharis palustris	15	Yes	OBL	5	D/A	
4. Rumex altissimus	15	Yes	FAC	Prevalence Index =		
5. Xanthium strumarium	15	Yes	FAC	Hydrophytic Vegetation 1 - Rapid Test for Hyd		
6				2 - Dominance Test is		JN
7				3 - Prevalence Index		
8				4 - Morphological Ada		cupporting
9				data in Remarks o		
10				Problematic Hydrophy	ytic Vegetation ¹ (E	xplain)
Woody Vine Stratum (Plot size: 450 sq ft)	75	= Total Co	over	¹ Indicators of hydric soil a	nd wetland hydrol	nav must
1 Nekemias arborea	5	No	FAC	be present, unless disturb		
2.				Hydrophytic		
	5	= Total Co	over	Vegetation	-	
% Bare Ground in Herb Stratum 25				Present? Yes 2	<u>х</u> No	
Remarks:		· · · · · · · · · · · · · · · · · · ·				
Remnant channel located within field re	ecently ti	lled.				

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			ox Feature		. ?	- .	ъ.
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	90					Clay	
				_				
	oncentration, D=De	•				d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless othe	erwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	` '			Gleyed Ma	. ,			k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			airie Redox (A16) (LRR F, G, H)
	stic (A3)			ed Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	-\		Mucky Mi	. ,		_	ns Depressions (F16)
	d Layers (A5) (LRR uck (A9) (LRR F, G ,	•		Gleyed Matrix (H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	00 (/111)		ed Dark Su	, ,			llow Dark Surface (TF12)
	Mucky Mineral (S1)			Depressio	, ,			plain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G,	H) High P	lains Depre	essions (F	16)	³ Indicators of	hydrophytic vegetation and
5 cm Μι	icky Peat or Peat (S	S3) (LRR F)	(M I	LRA 72 &	73 of LRR	H)	wetland h	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive I	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pr	esent? Yes No X
Remarks:								
NI I	6 6							
No redox	reatures obse	ervea; i inr	i clay, occas	ionally t	looded	is natio	nally listed n	ydric soil; naturally dark soil
HYDROLO	GY							
	drology Indicators							
_			abook all that ann	.1.4)			Sacandani	Indicators (minimum of two required)
	cators (minimum of	one requirea;		•				Indicators (minimum of two required)
	Water (A1)		Salt Crus		(D40)			e Soil Cracks (B6)
	ater Table (A2)			nvertebrate				lly Vegetated Concave Surface (B8)
Saturation Natural				Sulfide O on Water				ge Patterns (B10)
	larks (B1) nt Deposits (B2)			on water Rhizosphe	, ,			ed Rhizospheres on Living Roots (C3)
	posits (B3)		·	not tilled)		ing Roots		re tilled) h Burrows (C8)
1 1 1	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
	posits (B5)		_	k Surface		+)		orphic Position (D2)
	on Visible on Aerial	Imagery (R7)		plain in Re				eutral Test (D5)
	tained Leaves (B9)	illiagely (D1)	Other (LX	.piaiii iii ixe	omarko)			Heave Hummocks (D7) (LRR F)
Field Obser	. ,					1	= 110311	icave Hammooks (B7) (EKKT)
Surface Wat		Voc N	o X Depth (ir	ochee).				
Water Table			Depth (in				and Hudualani B	manamata Van Na X
Saturation P (includes car		Yes N	Depth (ir	ncnes):		_ weti	and Hydrology P	resent? Yes No X
Describe Re	corded Data (strear	n gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
Remnant	t former Nortl	h Sulphur	River chan	nel wes	st of SH	1 34· ni	reviously fille	ed but still depressional
. Comman		. Caipilai	. a.voi onan		. 5. 5.	. J , p	. Strougly fill	Ja Jat Jan Gopi Goolonia









Project/Site: Lake Ralph Hall Supplemental JD	(City/Coun	ty: Ladonia/F	annin	Sampling Date: 5/31/2	2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX		
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies				Long: <u>-95.94407</u>		
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for the						
Are Vegetation, Soil, or Hydrology				'Normal Circumstances" p		Nο
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site map						es, etc.
Hydrophytia Vagatatian Present? Vac X	No					
Hydrophytic Vegetation Present? Yes Hydric Soil Present? Yes Yes	No X		the Sampled			
Wetland Hydrology Present? Yes X	No	wi	thin a Wetlar	nd? Yes	No <u>×</u>	
Remarks:		I				
Remnant former North Sulphur River chani	nel located	d within	field west	of SH 34; has bee	n previously filled	but
still depressionally feature; not hydraulically	y or hydrol	logically	y connecte	ed to existing North	Sulphur River cha	annel
VEGETATION – Use scientific names of pla	nts.					
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		nt Indicator Status	Dominance Test work		
1. Salix nigra	50	Yes	FACW	Number of Dominant S That Are OBL, FACW,		
2. Ulmus americana	30	Yes	FAC	(excluding FAC-):	3	_ (A)
3.				Total Number of Domin	nant	
4.				Species Across All Stra	^	_ (B)
<i>(</i>	80	= Total C	over	Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	40	NIa	FAC	That Are OBL, FACW,		_ (A/B)
1. Ulmus americana		No No	FAC FAC	Prevalence Index wor	ksheet:	
2. Celtis laevigata			_ FAC		Multiply by:	
3					x 1 =	
4		-		FACW species	x 2 =	
0	15	= Total C	over	FAC species	x 3 =	
Herb Stratum (Plot size: 450 sq ft)		. 0.0 0		FACU species	x 4 =	
1. Lolium multiflorum	10	No	UPL		x 5 =	
2. Rumex altissimus	_ 5	No	FAC OR	Column Totals:	(A)	(B)
3. Carex cros-corvi	_ 15	Yes	OBL	Prevalence Index	c = B/A =	
Sorghum halepense Toxicodendron radicans	$-\frac{2}{3}$	No No	FACU FACU	Hydrophytic Vegetation		
					Hydrophytic Vegetation	
6				2 - Dominance Tes	st is >50%	
7 8				3 - Prevalence Inde	ex is ≤3.0 ¹	
9.				4 - Morphological A	Adaptations ¹ (Provide su	pporting
10					s or on a separate sheet phytic Vegetation ¹ (Expl	
		= Total C	over	Problematic Hydro	priytic vegetation (Expi	am)
Woody Vine Stratum (Plot size: 450 ft) 1.				¹ Indicators of hydric so be present, unless dist	il and wetland hydrology urbed or problematic.	must
2.				Hydrophytic		
	0			Vegetation Present? Ye	es X No	
				Tresent: Te	3 NU	
Remarks:		00/04 4!1	ا معمد	uma d		
Remnant channel located within field	wnere red	cent til	iage occi	urrea		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
	atrix		x Feature:	S	2			
(inches) Color (mo		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-18 10 YR 2/1	90					Clay		
					-			
1						21	BL B. IIII	
¹ Type: C=Concentration, I					ed Sand G		n: PL=Pore Lining, M=Matrix.	
Hydric Soil Indicators: (A	Applicable to all	_					Problematic Hydric Soils ³ :	
Histosol (A1)			Gleyed Ma				(A9) (LRR I, J) ie Redox (A16) (LRR F, G, H)	
Histic Epipedon (A2) Black Histic (A3)			Redox (S5 d Matrix (S			_	ce (S7) (LRR G)	
Hydrogen Sulfide (A4)		=	Mucky Mir	,		_	Depressions (F16)	
Stratified Layers (A5)			Gleyed Ma				outside of MLRA 72 & 73)	
1 cm Muck (A9) (LRR			ed Matrix (I	, ,		Reduced V	•	
Depleted Below Dark			Dark Surfa	,			: Material (TF2)	
Thick Dark Surface (A	12)	Deplete	d Dark Su	rface (F7))	Very Shallo	w Dark Surface (TF12)	
Sandy Mucky Mineral			Depressio	. ,			ain in Remarks)	
2.5 cm Mucky Peat or	. , ,	· · · —	ains Depre	,	,		drophytic vegetation and	
5 cm Mucky Peat or P	eat (S3) (LRR F)	(ML	.RA 72 & 7	73 of LRR	(H)		drology must be present,	
Destrictive Lever (if were						unless disti	urbed or problematic.	
Restrictive Layer (if pres								
Туре:							v	
Depth (inches):						Hydric Soil Pres	sent? Yes No X	
Remarks:								
Nie we deu feetuur -	la a a sa a a a la T ia					on a Heat Bata of Jacob	elekaran dia matamatka elekaran di	
no redox reatures o	bservea; iir	in clay, occasi	onally fi	looaea	is natio	onally listed ny	dric soil; naturally dark soil	
HYDROLOGY								
Wetland Hydrology Indic								
Primary Indicators (minimu	m of one required						dicators (minimum of two required)	
Surface Water (A1)		Salt Crust	(B11)			_	Soil Cracks (B6)	
High Water Table (A2)		Aquatic In					Vegetated Concave Surface (B8)	
Saturation (A3)		Hydrogen		, ,		☐ Drainage	e Patterns (B10)	
Water Marks (B1)		Dry-Seaso					Rhizospheres on Living Roots (C3)	
Sediment Deposits (B	2)	Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (where	e tilled)	
Drift Deposits (B3)		(where	not tilled)				Burrows (C8)	
Algal Mat or Crust (B4)	Presence		•	4)		on Visible on Aerial Imagery (C9)	
Iron Deposits (B5)		H Thin Muck	,				phic Position (D2)	
Inundation Visible on		7) <u> </u>	olain in Re	marks)			utral Test (D5)	
Water-Stained Leaves	(B9)					Frost-He	ave Hummocks (D7) (LRR F)	
Field Observations:								
Surface Water Present?		No X Depth (in						
Water Table Present?	Yes	No X Depth (in	ches):		_			
Saturation Present?	Yes	No X Depth (in	ches):		Wet	land Hydrology Pre	esent? Yes X No	
(includes capillary fringe) Describe Recorded Data (troom gougo me	nitoring well periol	nhotos pr	ovious inc	nootiona)	if available:		
pescribe vecolded bala (nieam gauge, mc	milloring well, aerial	ριισισε, μι	evious iiis	ρ ε υιίθη),	, ii avaliable.		
Demonio								
Remarks:								
Remnant former N	iorth Sulphi	ır River chanr	nel wes	st of Sh	1 34; p	reviously filled	d but still depressional	









Project/Site: Lake Ralph Hall Supplemental JD	(City/County	Ladonia/F	annin	Sampling Date: <u>5/31/2017</u>		
Applicant/Owner: Upper Trinity Regional Water District					Sampling Point: WP 14		
nvestigator(s): Jason Voight, Andrew Sample Section, Township, Range:							
Landform (hillslope, terrace, etc.): Valley					Slope (%): 0-1%		
Subregion (LRR): Southwest Prairies	Lat: 33.4	532		Long: -95.9451	Datum: NAD83		
				NWI classific			
Are climatic / hydrologic conditions on the site typical for this							
Are Vegetation, Soil, or Hydrologys					present? Yes X No		
Are Vegetation, Soil x, or Hydrology n	naturally pro	blematic?	(If ne	eded, explain any answe	ers in Remarks.)		
SUMMARY OF FINDINGS – Attach site map	showing	samplin	g point l	ocations, transects	s, important features, etc.		
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes N Wetland Hydrology Present? Yes N Remarks: Outside edge of forested wetland within	0 <u>x</u>	with	e Sampled in a Wetlar er North	nd? Yes	No <u>×</u> hannel; former		
channel not hydraulically or hydrologica	ally conr	ected to	o existir	ng North Sulphur	River channel		
VEGETATION – Use scientific names of plan	ts.						
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover	Dominant Species?		Dominance Test work			
1. Carya illinoinensis	90	Yes	FAC	Number of Dominant S That Are OBL, FACW,	or FAC		
2. Celtis laevigata	5	No	FAC	(excluding FAC-):	<u>2</u> (A)		
3. Ulmus americana	5	No	FAC	Total Number of Domir	nant		
4	400			Species Across All Stra	ata: <u>2</u> (B)		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	100	= Total Cov	er	Percent of Dominant S			
1. Celtis laevigata	10	Yes	FAC	That Are OBL, FACW,	(7,75)		
2				Prevalence Index wor			
3					Multiply by:		
4					x 1 = x 2 =		
5	10				x 3 =		
Herb Stratum (Plot size: 450 sq ft	10	= Total Cov	er	FACU species			
1. Lolium multiflorum	5	No	UPL		x 5 =		
2.					(A)(B)		
3				Bassala a a la das	D /A		
4				Hydrophytic Vegetati	c = B/A =		
5					Hydrophytic Vegetation		
6		-	-	2 - Dominance Tes			
7				3 - Prevalence Ind			
8					Adaptations ¹ (Provide supporting		
9				data in Remark	s or on a separate sheet)		
10	_			Problematic Hydro	ophytic Vegetation ¹ (Explain)		
Woody Vine Stratum (Plot size: 450 sq ft) 1.		= Total Cov		¹ Indicators of hydric so be present, unless dist	il and wetland hydrology must urbed or problematic.		
2.				Hydrophytic			
	^	= Total Cov		Vegetation	V		
				Present? Ye	es <u>X</u> No		
Remarks:		_					
Outside edge of forested wetland within within field west of SH 34	n remna	nt forme	er chanr	nel of North Sulp	nur River located		

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth _	Matrix	Matrix Redox Features			-			
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	99	10 YR 4/6	1	С	М	Clay	
						· ·		
				-				
				-			<u> </u>	
					•	• •		
1T 0 0							21	DI D. III MANA
			=Reduced Matrix, CS			ed Sand G		: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless other				_	Problematic Hydric Soils ³ :
Histosol (A	•			Gleyed Ma				(A9) (LRR I, J)
Histic Epip Black Histi				Redox (S5 d Matrix (S				e Redox (A16) (LRR F, G, H) e (S7) (LRR G)
	Sulfide (A4)			Mucky Mi	,		_	Depressions (F16)
	ayers (A5) (LRR F	=)		Gleyed M				outside of MLRA 72 & 73)
	(A9) (LRR F, G, I			d Matrix (. ,		Reduced Ve	•
	Below Dark Surfac		Redox I	Dark Surfa	ace (F6)		_	Material (TF2)
Thick Dark	Surface (A12)		Deplete	d Dark Su	ırface (F7	")	Very Shallov	w Dark Surface (TF12)
	cky Mineral (S1)			Depressio	. ,			ain in Remarks)
	cky Peat or Peat (· · · —	ains Depr	•	,		drophytic vegetation and
5 cm Muck	ky Peat or Peat (S	3) (LRR F)	(ML	RA 72 &	73 of LRI	R H)		rology must be present,
Dootsietius I o	(if managed)						unless distu	rbed or problematic.
	yer (if present):							
								- · · · · · · · · · · · · · · · · · · ·
	es):						Hydric Soil Pres	ent? Yes No X
Remarks:								
							e u e e i i	
insufficient i	redox reatures	observe	ea; Tinn clay, oc	casiona	ally floo	aea is n	iationally listed n	ydric soil; naturally dark soil
HYDROLOG	v							
-	ology Indicators:							
		ne require	d; check all that appl					dicators (minimum of two required)
Surface W	ater (A1)		Salt Crust	(B11)				Soil Cracks (B6)
High Wate	r Table (A2)		Aquatic In					Vegetated Concave Surface (B8)
Saturation	(A3)		Hydrogen		, ,		☐ Drainage	Patterns (B10)
Water Mar	ks (B1)		Dry-Seaso		•	•		Rhizospheres on Living Roots (C3)
	Deposits (B2)		Oxidized F	Rhizosphe	res on Li	ing Roots	· · — ·	· ·
☐ Drift Depos				not tilled)				Burrows (C8)
_	or Crust (B4)		Presence		,	4)		n Visible on Aerial Imagery (C9)
☐ Iron Depos			H Thin Muck		` '			hic Position (D2)
	Visible on Aerial I	magery (B	7) 🖳 Other (Exp	olain in Re	emarks)			tral Test (D5)
	ined Leaves (B9)						Frost-Hea	ave Hummocks (D7) (LRR F)
Field Observa								
Surface Water			No X Depth (in					
Water Table Pi	resent? Y	es	No X Depth (in	ches):				
Saturation Pres		es	No X Depth (in	ches):		Wet	tland Hydrology Pre	sent? Yes No X
(includes capill		anuan ma	onitoring well, aerial	ohotoo ni	ovious in	anactions)	if available:	
Describe Reco	iucu Dala (SiledM	yauye, m	omorning well, aerial	priotos, pi	evious in	spections)	, ii avalidDI C .	
Damerile								
Remarks:							.	
Outside ed	dge of forest	ed wetl	and within rer	nnant	tormer	North	Sulphur River	channel west of SH 34













Project/Site: Lake Ralph Hall Supplemental JD		City/Coun	nty: Ladonia/F	annin	_ Sampline	g Date: 6/2/20	17	
Applicant/Owner: Upper Trinity Regional Water District	State: TX Sampling Po							
Investigator(s): Jason Voight, Andrew Sample		Section, 7	Гownship, Ra	nge:				
Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Concave						Slope (%): 0-1%		
Subregion (LRR): Southwest Prairies	Lat: 33.4	15353		Long: <u>-96.01078</u>		Datum: NA	AD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi				
Are climatic / hydrologic conditions on the site typical for								
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	No	
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site ma							es, etc.	
Hydrophytic Vegetation Present? Yes X	No	le	the Sampled	I Area				
Hydric Soil Present? Yes X	No Within a Watlan							
Wetland Hydrology Present? Yes X Remarks:	No							
Heavy storms the previous day; fores		nd in w	vooded a	rea near North S	ulphur	River cha	annel	
VEGETATION – Use scientific names of pl		Damina	at ladiantas	Dominon on Took word	lanka ata			
<u>Tree Stratum</u> (Plot size: 700 sq ft)	Absolute <u>% Cover</u>		nt Indicator Status	Dominance Test work Number of Dominant S				
1. Fraxinus pennsylvanica	85	Yes	FAC	That Are OBL, FACW,		2		
2				(excluding FAC-):			_ (A)	
3				Total Number of Domi		2	(D)	
4	0.5			Species Across All Str	ата:		_ (B)	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	85	= Total C	over	Percent of Dominant S That Are OBL, FACW,		100	(A/B)	
1. Fraxinus pennsyvanica	10	No	FAC				_ (A/b)	
2.				Prevalence Index wo				
3				Total % Cover of:				
4				OBL species				
5	4.0			FACW species				
Herb Stratum (Plot size: 450 sq ft)	10	= Total C	over	FACU species				
1. Ptilimnium nutalli	85	Yes	FACW	UPL species				
2. Carex blanda	5	No	FAC	Column Totals:				
3.								
4				Prevalence Index			_	
5		-		Hydrophytic Vegetati 1 - Rapid Test for				
6				2 - Dominance Te		-		
7				3 - Prevalence Inc				
8				4 - Morphological			pporting	
9				data in Remark	s or on a s	separate sheet	t)	
10	00			Problematic Hydro	phytic Ve	getation ¹ (Expl	ain)	
Woody Vine Stratum (Plot size: 450 sq ft)		= Total C		¹ Indicators of hydric so be present, unless dist			must	
2.				Hydrophytic				
40	0	= Total C		Vegetation	as X	No		
% Bare Ground in Herb Stratum 10 Remarks:				i resent:		140		

Profile Desc	cription: (Describe	e to the dep	th needed to docu	ıment the	indicator o	or confir	m the absence of	indicators.)
Depth	4 0				. 2	.	5	
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	<u>Texture</u>	Remarks
0-2	10 YR 3/2	100	10 YR 5/4	15	C	M	Clay	
							<u> </u>	
-				_				
-	-							
					. ———			
					·			
							<u> </u>	
	oncentration, D=De					d Sand G		on: PL=Pore Lining, M=Matrix.
	Indicators: (Appli	cable to all					_	r Problematic Hydric Soils ³ :
Histosol	• •			Gleyed Ma	, ,			k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•			airie Redox (A16) (LRR F, G, H)
	istic (A3) en Sulfide (A4)			ed Matrix (S	•			ace (S7) (LRR G)
	en Sullide (A4) d Layers (A5) (LRR	E)		Mucky Min Gleyed M			_	ns Depressions (F16) H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G	•		ed Matrix (Vertic (F18)
	d Below Dark Surfa	. ,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	()	_	ed Dark Su	. ,			llow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)		Redox	Depressio	ns (F8)			plain in Remarks)
	Mucky Peat or Peat	. , .		lains Depr	•	,		hydrophytic vegetation and
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(M	LRA 72 &	73 of LRR	H)		ydrology must be present,
Destriction	I ('f ()						unless dis	sturbed or problematic.
	Layer (if present):							
Type:								Y
	ches):						Hydric Soil Pro	esent? Yes X No
Remarks:								
Dodov fo	oturos proso	ot: Tinn o	alay accasion	ally flag	odod ic	nation	ally listed by	dric soil; naturally dark soil
INEGOX IE	atures preser	iii, iiiiii C	Jay, occasioi	ially 1100	Jueu is	nation	lally listed flyt	unc son, naturany dark son
HYDROLO	GY							
Wetland Hy	drology Indicators	S:						
-	cators (minimum of		d; check all that app	oly)			Secondary	Indicators (minimum of two required)
	Water (A1)		☐ Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			nvertebrate	es (B13)			ly Vegetated Concave Surface (B8)
Saturati	(/			n Sulfide O	, ,			ge Patterns (B10)
	farks (B1)			on Water				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ng Roots	(C3) (whe	re tilled)
	posits (B3)		(where	not tilled)				h Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4)	Saturat	tion Visible on Aerial Imagery (C9)
☐ Iron Dep	posits (B5)		Thin Muc	k Surface	(C7)		Geomo	orphic Position (D2)
Inundati	ion Visible on Aeria	I Imagery (B	7) 🔲 Other (E	kplain in Re	emarks)		FAC-N	eutral Test (D5)
Water-S	Stained Leaves (B9)						Frost-H	leave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	er Present?	Yes X I	No Depth (i	nches):	3	_		
Water Table			No Depth (i			_		
Saturation P			No Depth (i			Wet	land Hydrology P	resent? Yes X No
	pillary fringe)							
Describe Re	corded Data (strea	m gauge, mo	onitoring well, aeria	ı photos, pr	evious insp	pections)	, if available:	
Remarks:								
1								













Project/Site: Lake Ralph Hall Supplemental JD		City/Coun	ity: Ladonia/F	annin	Sampling	g Date: 6/2/2	2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	g Point: WP	58
Investigator(s): Jason Voight, Andrew Sample		Section, 7	Гownship, Ra	inge:			
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave		Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	45353	Long: -96.01074 Datum: NAD83				
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for	this time of ve						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" p		Yes X	No
Are Vegetation, SoilX_, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							ıres, etc
Hydrophytic Vegetation Present? Yes X	No	le	the Sampled	I Area			
Hydric Soil Present? Yes	No X		thin a Wetlar		No	Χ	
Wetland Hydrology Present? Yes	No X						
Remarks:							
Outside of the forested wetland deline	eated in w	/p57					
VEGETATION – Use scientific names of pla	ants.						
<i>(</i> :	Absolute		nt Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft)			Status	Number of Dominant S			
Fraxinus pennsylvanica Celtis laevigata	<u>20</u> 60	Yes Yes	FAC FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	3	(A)
		-		, , ,			(,,
3		-		Total Number of Domin Species Across All Stra		3	(B)
4.	80	= Total C	Cover				()
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- Total O	ovei	Percent of Dominant Spart That Are OBL, FACW,		100	(A/B)
1. Fraxinus pennsyvanica	10			Prevalence Index wor			
2. Celtis laevigata	15	No	FAC	Total % Cover of:		Multiply by	
3				OBL species			
4				FACW species			
5	25			FAC species			
Herb Stratum (Plot size: 450 sq ft)		= Total C	over	FACU species		4 =	
1. Amaranthus tuberculatus	70	Yes	FAC	UPL species			
2. Ptilimnium nutalli	5	No	FACW	Column Totals:	(A))	(B)
3. Elymus virginicus	5	No	FAC	Prevalence Index	- B/A -		
4. Carex blanda	5	No	FAC	Hydrophytic Vegetation			
5. Viola missouriensis	5	No	FACW	1 - Rapid Test for I			า
6				2 - Dominance Tes		-	
7				3 - Prevalence Inde	ex is ≤3.0 ¹	1	
8				4 - Morphological A			
9 10.				data in Remarks		•	•
10.		= Total C	over	Problematic Hydro	phytic Veg	getation* (Ex	piain)
Woody Vine Stratum (Plot size: 450 sq ft) 1		. 0.0.		¹ Indicators of hydric soil be present, unless distu			gy must
2				Hydrophytic			
	0	= Total C	over	Vegetation	Y		
% Bare Ground in Herb Stratum 10	<u>-</u>			Present? Ye	s^_	No	_
Remarks:							

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	ndicator	or confirn	n the absence of	indicators.)
Depth	Matrix			ox Feature			- .	ъ.
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-2	10 YR 3/2	100					Clay	
	oncentration, D=D					d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to all L	RRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	, ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5				airie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	. E.		Mucky Mir				ns Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G			Gleyed Ma ed Matrix (I				H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surf			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	400 (7111)		ed Dark Su	. ,		_	llow Dark Surface (TF12)
	/lucky Mineral (S1)			Depression	, ,			plain in Remarks)
_	Mucky Peat or Pea		_	ains Depre	. ,	16)		hydrophytic vegetation and
5 cm Μι	ucky Peat or Peat	(S3) (LRR F)	(MI	RA 72 & 7	73 of LRR	H)	wetland hy	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive	Layer (if present)	:						
Type:								.,
Depth (in	ches):						Hydric Soil Pro	esent? Yes NoX
Remarks:								
		, 						
ino tedox	reatures pre	sent; I inn	ciay, occasio	nally fic	ooded i	s natior	nally listed ny	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicator	e.						
-	cators (minimum o		check all that ann	lv)			Secondary	Indicators (minimum of two required)
	Water (A1)	r one required,	Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			vertebrate	c (B13)		_	ly Vegetated Concave Surface (B8)
Saturation	, ,			Sulfide O	. ,			ge Patterns (B10)
	larks (B1)			on Water T				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe				re tilled)
	posits (B3)		· 	not tilled)		ing ixoots		h Burrows (C8)
	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			k Surface (*)	_	orphic Position (D2)
	on Visible on Aeria	al Imagery (B7)		plain in Re				eutral Test (D5)
_	stained Leaves (B9			piairiirite	markoj			Heave Hummocks (D7) (LRR F)
Field Obser	`	,						icave Hammosite (27) (21tt 1)
Surface Wat		Yes N	o X Depth (ir	rches).				
Water Table			o X Depth (ir					
			o X Depth (ir				and Hydrology D	resent? Yes NoX
Saturation P (includes cap		res iv	o Deptn (ir	icnes):		_ weti	and Hydrology P	resent? res No
	corded Data (strea	ım gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								









Project/Site: Lake Ralph Hall Supplemental JD		City/County	_y : <u>Ladonia/F</u>	annin	Sampling	g Date: <u>6/1</u>	/2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	Point: WF	² 86
Investigator(s): Jason Voight, Andrew Sample		Section, To	ownship, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley				convex, none): Concave			(%): <u>0-1%</u>
				Long: -95.97781			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for t	his time of vo						
				"Normal Circumstances" p		Voc. X	No
Are Vegetation, Soil, or Hydrology							_ 140
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma	p showing	samplir	ng point l	ocations, transects	, impor	tant feat	ures, etc
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes	No X		ne Sampled		NI.	×	
Wetland Hydrology Present? Yes X		Witi	nin a Wetlar	nd? Yes	NO		
Remarks:		I					
depressional area associated with for	mer chan	nel sca	r; not hy	draulically conne	cted to	any ex	kisting
stream channel							
VEGETATION – Use scientific names of pla	nte						
VEGETATION – Ose scientific fiames of pia	Absolute	Dominan	t Indicator	Dominance Test work	shoot:		
Tree Stratum (Plot size: 700 sq ft)		Species?		Number of Dominant S			
1. Fraxinus pennsylvanica	5	No	FAC	That Are OBL, FACW,		2	
2. Celtis laevigata	30	Yes	FAC	(excluding FAC-):		2	(A)
3. Ulmus crassifolia/Ulmus americana	10/30	No/Yes	FAC/FAC	Total Number of Domin		2	4-1
4. Quercus shumardii/Quercus macrocarpa	5/5	No/No	FAC/FACU	Species Across All Stra	ita:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	85	= Total Co	ver	Percent of Dominant S		100	(4 (5)
1. Quercus shumardii	10	No	FAC	That Are OBL, FACW,	or FAC:	100	(A/B)
2. Quercus macrocarpa	10	No	FACU	Prevalence Index wor	ksheet:		
3. Celtis laevigata	15	No	FAC	Total % Cover of:		Multiply b	<u>y:</u>
4.				OBL species			
5.				FACW species			
450 (1	35	= Total Co	ver	FAC species		· ·	
Herb Stratum (Plot size: 450 sq ft)	0	No	FAC	FACU species			
Elymus virginicus Viola missouriensis	$-\frac{2}{2}$	No No	FACW	UPL species			
		-	FACV	Column Totals:	(A)		(B)
3				Prevalence Index	= B/A =		
4		-		Hydrophytic Vegetation	on Indicat	ors:	
5 6				1 - Rapid Test for I		Ü	on
7.				2 - Dominance Tes			
8.				3 - Prevalence Inde			
9.				4 - Morphological A			
10				Problematic Hydro		•	•
	4	= Total Co	ver	<u> </u>	. , .	`	. ,
Woody Vine Stratum (Plot size: 450 sq ft)	3	No	FACU	¹ Indicators of hydric soil be present, unless distr			
Toxicodendron radicans Smilax bona-nox/Campsis radicans	$-\frac{3}{3}$	No No	FAC/UFACU				
2. Onlinax bona-nox-campsis radicans				Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 96	-	= Total Co	ver	Present? Ye	sX	No	_
Remarks:				1			

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature	1	. 2	_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-1	10 YR 2/1	100					Clay	
		_						
				-				
	_							
	oncentration, D=De	•				d Sand G	rains. ² Location	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all L	RRs, unless other	rwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	atrix (S4)		1 cm Muc	k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•		_	irie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	. . .		Mucky Mir			_	ns Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G			Gleyed Ma			_ `	Houtside of MLRA 72 & 73) Vertic (F18)
	ıck (A9) (LRR F, G d Below Dark Surfa			ed Matrix (Dark Surfa				Vertic (F18) nt Material (TF2)
	ark Surface (A12)	ace (ATT)		ed Dark Su	. ,			low Dark Surface (TF12)
_	Mucky Mineral (S1)			Depressio	, ,			plain in Remarks)
	Mucky Peat or Pea		_	ains Depre	, ,	16)	 · · ·	nydrophytic vegetation and
5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(MI	RA 72 & 1	73 of LRR	H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive	Layer (if present):							
Type:			<u>—</u>					.,
Depth (in	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:							-	
	- · -							
No redox	x features; I	ınn clay, o	occasionally	tloode	ed is na	ationall	y listed hydr	ic soil; naturally dark soil
HYDROLO	GY							
	drology Indicators							
_	cators (minimum of		shook all that ann	lv)			Cocondon	Indicators (minimum of two required)
	•	one required,						Indicators (minimum of two required) Soil Cracks (B6)
	Water (A1) ater Table (A2)		Salt Crus	. (DTT) ivertebrate	o (P12)			ly Vegetated Concave Surface (B8)
1 —	` ,			Sulfide O	. ,			ge Patterns (B10)
Saturation	larks (B1)			on Water 1				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)					ing Roots		re tilled)
	posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)		y 110013	—	h Burrows (C8)
	at or Crust (B4)			of Reduce		1)		ion Visible on Aerial Imagery (C9)
~	posits (B5)			Surface (*)		rphic Position (D2)
ı 🚐	on Visible on Aeria	I Imagery (B7)		plain in Re				eutral Test (D5)
_	stained Leaves (B9			piairi	inano,			leave Hummocks (D7) (LRR F)
Field Obser		/						isave riaminesia (57) (Errit 1)
Surface Wat		Yes N	o X Depth (ir	iches).				
Water Table			o X Depth (ir					
			o X Depth (ir o X Depth (ir				and Hydrology D	resent? Yes X No
Saturation P (includes cap		resN	o Deptn (ir	icnes):		vveti	and nydrology P	resent? resNO
	corded Data (strea	m gauge, mon	itoring well, aerial	photos, pr	eviou s ins	pections),	if available:	
Remarks:								







Project/Site: Lake Ralph Hall Supplemental JD		City/Count	ty: Ladonia/F	annin	Sampling	g Date: 6/2/2	017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	g Point: WP1	33
Investigator(s): Jason Voight, Andrew Sample		Section, T	ownship, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley		Local relie	ef (concave,	convex, none): Concave		Slope (%	%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	45045		Long: <u>-96.01480</u>		Datum: N	IAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for	this time of ye						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma						•	res, etc.
Hydrophytic Vegetation Present? Yes X	No	le f	the Sampled	I Area			
Hydric Soil Present? Yes	No X		thin a Wetlar		No	Х	
Wetland Hydrology Present? Yes	NoX						
Heavy storms the previous day; wood	led area r	near No	orth Sulp	hur River channe	el		
VECETATION Lies esigntific names of pic	nto						
VEGETATION – Use scientific names of pla	Absolute	Dominar	nt Indicator	Dominance Test work	rsheet.		
<u>Tree Stratum</u> (Plot size: <u>700 sq ft</u>)			? Status	Number of Dominant S			
1. Fraxinus pennsylvanica	20	Yes	FAC	That Are OBL, FACW,		3	(4)
2. Celtis laevigata	50	Yes	FAC	(excluding FAC-):			(A)
3. Maclura pomifera	15	No	FACU	Total Number of Domir		4	(B)
4	85	T-1-1-0		Species Across All Stra	ııa.	•	(b)
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total Co	over	Percent of Dominant S That Are OBL, FACW,		75	(A/B)
1. Cornus drummondi	5	No	FAC				(//////
2. Celtis laevigata	15	No	FAC	Prevalence Index wor		NA - IC- L - L	
3				Total % Cover of:			
4				OBL species			
5	20			FAC species			
Herb Stratum (Plot size: 450 sq ft)	20	= Total Co	over	FACU species		4 =	
1. Toxicodendron radicans	15	No	FACU	UPL species			
2. Carex planostachys	40	Yes	UPL	Column Totals:	(A))	(B)
3. Elymus virginicus	40	Yes	FAC	Prevalence Index	/ - R/Δ -		
4				Hydrophytic Vegetati			
5				1 - Rapid Test for			
6				2 - Dominance Tes	st is >50%	,	
7				3 - Prevalence Ind	ex is ≤3.0 ¹	1	
8				4 - Morphological			
10.				data in Remark		•	,
		= Total Co	over	Problematic Hydro	pnytic veg	getation (Exp	olain)
Woody Vine Stratum (Plot size: 450 sq ft) 1. Lonicera japonica	5	No	FACU	¹ Indicators of hydric so be present, unless dist			y must
2.				Hydrophytic	_		
_	5	= Total Co	over	Vegetation	s X	No	
% Bare Ground in Herb Stratum 5 Remarks:				i-lescill: 16	<u> </u>	NU	-
itemarks.							

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	ndicator	or confirn	n the absence of	indicators.)
Depth	Matrix			ox Feature			- .	ъ.
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-2	10 YR 3/2	100					Clay	
	oncentration, D=D					d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (App	licable to all L	RRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	, ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5				airie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	. E.		Mucky Mir				ns Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G			Gleyed Ma ed Matrix (I				H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surf			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	400 (7111)		ed Dark Su	. ,		_	llow Dark Surface (TF12)
	/lucky Mineral (S1)			Depression	, ,			plain in Remarks)
_	Mucky Peat or Pea		_	ains Depre	. ,	16)		hydrophytic vegetation and
5 cm Μι	ucky Peat or Peat	(S3) (LRR F)	(MI	RA 72 & 7	73 of LRR	H)	wetland hy	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive	Layer (if present)	:						
Type:								.,
Depth (in	ches):						Hydric Soil Pro	esent? Yes NoX
Remarks:								
		, 						
ino tedox	reatures pre	sent; I inn	ciay, occasio	nally fic	ooded i	s natior	nally listed ny	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicator	e.						
-	cators (minimum o		check all that ann	lv)			Secondary	Indicators (minimum of two required)
	Water (A1)	r one required,	Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			vertebrate	c (B13)		_	ly Vegetated Concave Surface (B8)
Saturation	, ,			Sulfide O	. ,			ge Patterns (B10)
	larks (B1)			on Water T				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe				re tilled)
	posits (B3)		· 	not tilled)		ing ixoots		h Burrows (C8)
	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			k Surface (*)	_	orphic Position (D2)
	on Visible on Aeria	al Imagery (B7)		plain in Re				eutral Test (D5)
_	stained Leaves (B9			piairiirite	markoj			Heave Hummocks (D7) (LRR F)
Field Obser	`	,						icave Hammosite (27) (21tt 1)
Surface Wat		Yes N	o X Depth (ir	rches).				
Water Table			o X Depth (ir					
			o X Depth (ir				and Hydrology D	resent? Yes NoX
Saturation P (includes cap		res iv	o Deptn (ir	icnes):		_ weti	and Hydrology P	resent? res No
	corded Data (strea	ım gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								









Project/Site: Lake Ralph Hall Supplemental JD		City/Cour	nty: Ladonia/F	annin	Sampling	g Date: 6/2/2	017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	g Point: WP1	34
Investigator(s): Jason Voight, Andrew Sample		Section,	Township, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley		Local rel	ief (concave,	convex, none): Concave		Slope (%	%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies				Long: -95.99635			
Soil Map Unit Name: Normangee Clay Loam, 2 to 5 perce							
Are climatic / hydrologic conditions on the site typical for t							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No
Are Vegetation, Soil, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma						•	res, etc.
Hydrophytic Vegetation Present? Yes	No X		th a Camania	1 4			
Hydric Soil Present? Yes	NoX		the Sampled ithin a Wetlar		No	Х	
Wetland Hydrology Present? Yes	No X	VVI	itiliii a vvetiai	iid: 165			
Remarks:							
VEGETATION – Use scientific names of pla	ants. Absolute	Domina	int Indicator	Dominance Test worl	vshoot:		
<u>Tree Stratum</u> (Plot size: 700 sq ft)			Status	Number of Dominant S			
1. Quercus stellata	80	Yes	FACU	That Are OBL, FACW,		1	(4)
2				(excluding FAC-):		1	_ (A)
3				Total Number of Domin		4	(D)
4	0.0			Species Across All Stra	ята:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	80	= Total C	Cover	Percent of Dominant S That Are OBL, FACW,		25	(A/B)
1. Quercus stellata	20	No	FAC				_ (A/B)
2. Celtis laevigata	15	No	FAC	Prevalence Index wo			
3. Symphoricarpos orbiculatus	35	Yes	FACU	Total % Cover of:			
4. Ulmus crassifolia	10	No		OBL species			
5				FACW species			
Herb Stratum (Plot size: 450 sq ft	80	= Total C	Cover	FACU species			
Herb Stratum (Plot size: 450 sq II) 1 Toxicodendron radicans	15	No	FACU	UPL species		4 = 5 =	
2. Carex planostachys	40	Yes	UPL	Column Totals:			
3. Elymus virginicus	30	Yes	FAC				
4.				Prevalence Index			
5				Hydrophytic Vegetati			
6				1 - Rapid Test for 2 - Dominance Te		•	
7				3 - Prevalence Ind			
8				4 - Morphological			upporting
9				data in Remark			
10	0.5			Problematic Hydro	phytic Veç	getation ¹ (Exp	olain)
Woody Vine Stratum (Plot size: 450 sq ft)		= Total C	Cover	¹ Indicators of hydric so be present, unless dist			y must
2.				Hydrophytic			
	0	= Total C	Cover	Vegetation	es	No X	
% Bare Ground in Herb Stratum 15 Remarks:				1			<u> </u>

Depth (in a land)	<u>Matrix</u>		Redox Feature	es	2 . .	D
(inches) 0-18	Color (moist) 10 YR 3/2	<u>%</u> 100	Color (moist) %	Type ¹ Loc		Remarks
0-18	10 YR 3/2			-	Clay	
					<u> </u>	
-						_
						
	-			<u> </u>		
			duced Matrix, CS=Covere			: PL=Pore Lining, M=Matrix.
		cable to all LR	Rs, unless otherwise no		Indicators for F	Problematic Hydric Soils ³ :
Histosol	. ,		Sandy Gleyed M	, ,	_	(A9) (LRR I, J)
	pipedon (A2)		Sandy Redox (S			ie Redox (A16) (LRR F, G, H)
	istic (A3) en Sulfide (A4)		Stripped Matrix (Loamy Mucky Mi	,	_	ce (S7) (LRR G) Depressions (F16)
	d Layers (A5) (LRR	F)	Loamy Gleyed M		_	outside of MLRA 72 & 73)
	uck (A9) (LRR F, G ,		Depleted Matrix		Reduced V	•
	d Below Dark Surfa		Redox Dark Surf			Material (TF2)
	ark Surface (A12)		Depleted Dark S			w Dark Surface (TF12)
	Mucky Mineral (S1)		Redox Depression	` '		ain in Remarks)
	Mucky Peat or Peat		-			drophytic vegetation and
5 cm Mu	ucky Peat or Peat (S	83) (LRR F)	(MLRA 72 &	73 of LRR H)		rology must be present,
Postrictivo	Layer (if present):				unless distu	urbed or problematic.
	ahaa);		_		Undria Cail Dres	ent? Yes NoX
	ches):		-		Hydric Soil Pres	ent? fes No
Remarks:						
No re	dox fea	tures r	resent			
140 10	Juon Icu	tares p	71000111			
HYDROLO	GY					
Wetland Hy	drology Indicators	:				
Primary Indi	cators (minimum of	one required; c	heck all that apply)		Secondary In	dicators (minimum of two required)
Surface	Water (A1)		Salt Crust (B11)		Surface S	Soil Cracks (B6)
	ater Table (A2)		Aquatic Invertebrate	es (B13)		Vegetated Concave Surface (B8)
Saturati			Hydrogen Sulfide C	dor (C1)		Patterns (B10)
☐ Water M	Marks (B1)		Dry-Season Water	Table (C2)	Oxidized	Rhizospheres on Living Roots (C3)
Sedime	nt Deposits (B2)		Oxidized Rhizosphe	eres on Living Ro	oots (C3) (where	tilled)
	posits (B3)		(where not tilled)	Crayfish	Burrows (C8)
☐ Algal Ma	at or Crust (B4)		Presence of Reduc	ed Iron (C4)	Saturatio	n Visible on Aerial Imagery (C9)
Iron Dep	posits (B5)		Thin Muck Surface	(C7)	Geomorp	phic Position (D2)
Inundati	ion Visible on Aerial	Imagery (B7)	Other (Explain in R	emarks)	FAC-Neu	itral Test (D5)
Water-S	Stained Leaves (B9)				Frost-He	ave Hummocks (D7) (LRR F)
Field Obser						
Surface Wat			X Depth (inches):			
Water Table	Present?	Yes No	X Depth (inches):			
Saturation P	resent?	Yes No	X Depth (inches):	v	Vetland Hydrology Pre	esent? Yes No _X
	pillary fringe)					
Describe Re	ecorded Data (strear	n gauge, monit	oring well, aerial photos, p	revious inspectio	ns), if available:	
Remarks:						
ı						











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			
Investigator(s): Jason Voight, Andrew Sample				nge:			
Landform (hillslope, terrace, etc.): Valley				=		Slope (%)): 0-1%
,				Long: <u>-95.98882</u>			
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"		Yes X	Nο
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe		·	
SUMMARY OF FINDINGS – Attach site ma						,	es, etc.
Hydrophytic Vegetation Present? Yes X	No	le t	the Sampled	I Aroa			
Hydrophytic Vegetation Present? Yes X Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No X		hin a Wetlar		No	Χ	
Wetland Hydrology Present? Yes Remarks:	No X						
Heavy storms the day before; wooded	d area ne	ar Nort	h Sulphu	ır River channel			
VEGETATION – Use scientific names of pla	ants.						
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		nt Indicator ? Status	Dominance Test work			
1. Fraxinus pennsylvanica	30	Yes	FAC	Number of Dominant S That Are OBL, FACW,			
2. Celtis laevigata/Quercus muehlenbergii	20/20	Yes/Yes	FAC/FAC	(excluding FAC-):		5	(A)
3. Ulmus crassifolia	10	Yes	FAC	Total Number of Domir	nant		
4. Maclura pomifera	10	No	FACU	Species Across All Stra	ıta:	6	_ (B)
700 sq.ft	90	= Total Co	over	Percent of Dominant S	pecies		
Sapling/Shrub Stratum (Plot size: 700 sq ft) 1. Celtis laevigata/Quercus muehlenbergii	15/10	No/No	FAC/FAC	That Are OBL, FACW,	or FAC:	83.3	_ (A/B)
2. Quercus stellata/Cercis canadensis	10/5	No/No	FACU/UPL	Prevalence Index wor	ksheet:		
3. Juniperus virginiana	5	No	UPL	Total % Cover of:		Multiply by:	
4. Ulmus crassifolia	10	No	FAC	OBL species			
5. Fraxinus pennsylvanica	20	No	FAC	FACW species			
450.00 %	75	= Total Co	over	FAC species			_
Herb Stratum (Plot size: 450 sq ft) 1. Toxicodendron radicans	20	Yes	FACU	FACU species		4 = -	_
Viola missouriensis	5	No	FACW	UPL species Column Totals:			
3. Elymus virginicus	30	Yes	FAC	Column rotals.	(^)		(b)
4. Daucus carota	10	No	UPL	Prevalence Index	= B/A =		_
5. Erigeron annuus	5	No	FAC	Hydrophytic Vegetati			
6.				1 - Rapid Test for		•	
7.				2 - Dominance Tes			
8				3 - Prevalence Ind			
9				4 - Morphological / data in Remark	Adaptation s or on a s	is" (Provide su separate sheet	pporting :)
10				Problematic Hydro			
Wash, Vine Charture (Diet sine, 450 sq ft	70	= Total Co	over	¹ Indicators of hydric as	il and wat	and hydrology	munt
Woody Vine Stratum (Plot size: 450 sq ft) 1 Parthenocissus quinquefolia	5	No	FACU	¹ Indicators of hydric so be present, unless dist			must
2.				Hydrophytic			
% Bare Ground in Herb Stratum 30		= Total Co	over	Vegetation	esX	No	
Remarks:				1			

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature			- .	D .
(inches)	Color (moist)	%	Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100		_			Clay	
				_				
-				_				
				_				
	oncentration, D=D					d Sand G		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	licable to all L	RRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma	, ,			k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	,			airie Redox (A16) (LRR F, G, H)
	istic (A3)		=	d Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	. E.		Mucky Mir	. ,			ns Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G			Gleyed Matrix (H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa			Dark Surfa				nt Material (TF2)
	ark Surface (A12)	400 (7111)			urface (F7)		_	llow Dark Surface (TF12)
	/lucky Mineral (S1)			Depressio	, ,			plain in Remarks)
	Mucky Peat or Pea		_	•	essions (F	16)		hydrophytic vegetation and
5 cm Μι	ucky Peat or Peat ((S3) (LRR F)	(MI	RA 72 &	73 of LRR	H)	wetland hy	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive	Layer (if present)	:						
Type:								
Depth (in	ches):						Hydric Soil Pro	esent? Yes No _X
Remarks:								
		, 						
No redox	reatures pre	sent; I inn	ciay, occasio	nally flo	ooaea i	s natior	nally listed ny	dric soil; naturally dark soi
HYDROLO	GY							
	drology Indicator	e.						
_	cators (minimum o		check all that ann	lv)			Secondary	Indicators (minimum of two required)
	Water (A1)	r one required,	Salt Crus	•				e Soil Cracks (B6)
	ater Table (A2)			vertebrate	e (B13)		_	ly Vegetated Concave Surface (B8)
Saturation	` '			Sulfide O	. ,			ge Patterns (B10)
	larks (B1)				cor (C1) Γable (C2)			ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)					ing Roots		re tilled)
	posits (B3)		· 	not tilled)		ing ixoots		h Burrows (C8)
1 1 1	at or Crust (B4)				ed Iron (C4	1)		tion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			Surface (•)	_	orphic Position (D2)
	on Visible on Aeria	al Imagery (B7)		plain in Re				eutral Test (D5)
	stained Leaves (B9			piaiii iii ike	inano,			Heave Hummocks (D7) (LRR F)
Field Obser	,	,						icave Hammooke (27) (211117)
Surface Wat		Yes N	o X Depth (ir	rches).				
Water Table			o X Depth (ir					
			o X Depth (ir				and Hydrology D	resent? Yes NoX
Saturation P (includes car		res iv	o Deptn (ir	icnes):		_ weti	and Hydrology P	resent? res NO
	corded Data (strea	ım gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								







Project/Site: Lake Ralph Hall Supplemental JD		City/County: Ladonia/F	annin	Sampling Date: <u>6/2/2017</u>
Applicant/Owner: Upper Trinity Regional Water District			State: TX	Sampling Point: WP138
Investigator(s): Jason Voight, Andrew Sample		Section, Township, Ra	ange:	
				Slope (%): <u>0-1%</u>
				Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded			NWI classifica	
Are climatic / hydrologic conditions on the site typical fo	r this time of ve			
Are Vegetation, Soil, or Hydrology				esent? Yes X No
Are Vegetation, SoilX , or Hydrology			eeded, explain any answers	
SUMMARY OF FINDINGS – Attach site m				
	_ No	Is the Sampled	d Area	
	No X	within a Wetla	nd? Yes	NoX
Remarks:	NoX			
Heavy storms the previous day; woo River channel and current North Sulpose VEGETATION – Use scientific names of p	phur River		ars; between remi	iant North Sulphur
700 (Absolute	Dominant Indicator	Dominance Test works	heet:
Tree Stratum (Plot size: 700 sq ft)		Species? Status	Number of Dominant Spe	
1. Fraxinus pennsylvanica	30	Yes FAC	That Are OBL, FACW, or (excluding FAC-):	r FAC (A)
Celtis laevigata Ulmus americana	25 15	Yes FAC FAC	,	
4. Morus rubra	10	No FACU	Total Number of Domina Species Across All Strata	0
4. 11010310310				
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total Cover	Percent of Dominant Spe That Are OBL, FACW, or	
1. Celtis laevigata	15	No FAC		
2. Fraxinus pennsylvanica	10	No FAC	Prevalence Index works	
3. Ulmus americana	10	No FAC	Total % Cover of:	
4			·	x 1 = x 2 =
5				x 3 =
Herb Stratum (Plot size: 450 sq ft	35	= Total Cover	FACU species	
1 Carex planostachys	15	No UPL	UPL species	x 5 =
2. Ambrosia trifida	5	No FAC		(A) (B)
3.				
4				= B/A =
5			Hydrophytic Vegetation	
6			2 - Dominance Test	ydrophytic Vegetation
7			3 - Prevalence Index	
8				c is ≤3.0 daptations¹ (Provide supporting
9			data in Remarks	or on a separate sheet)
10			Problematic Hydropl	hytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft) 1		= Total Cover	¹ Indicators of hydric soil be present, unless distur	and wetland hydrology must bed or problematic.
2.			Hydrophytic	
% Bare Ground in Herb Stratum 80	0	= Total Cover	Vegetation	XNo
Remarks:			_1	

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	indicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Feature			- .	.
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100					Clay	
				_ _	_ _			
	oncentration, D=D					d Sand Gr		on: PL=Pore Lining, M=Matrix.
	Indicators: (Appl	icable to all L					_	r Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma	. ,			k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•		_	airie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
	istic (A3) en Sulfide (A4)			d Matrix (S Mucky Mir	•			ace (S7) (LRR G) ns Depressions (F16)
	d Layers (A5) (LRF	R F)		Gleyed Ma				H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G			ed Matrix (I				Vertic (F18)
	d Below Dark Surfa	ace (A11)	_	Dark Surfa	, ,			nt Material (TF2)
	ark Surface (A12)			ed Dark Su	, ,			llow Dark Surface (TF12)
	Mucky Mineral (S1) Mucky Peat or Pea			Depression ains Depre	. ,	16)		plain in Remarks) hydrophytic vegetation and
	ииску Реат от Реа ucky Peat or Peat (, , , , , ,	. —	ains Depre -RA 72 & 7	•	•		nydropnytic vegetation and ydrology must be present,
	out of 1 out ((======================================	(1411		. 5 51 EIKIN	,		sturbed or problematic.
Restrictive	Layer (if present)							·
Type:								
Depth (in	ches):						Hydric Soil Pro	esent? Yes NoX
Remarks:							1	
Earthworm	s present; No re	edox features	present; Tinn	clay, occ	asionally	flooded	is nationally list	ted hydric soil; naturally dark soi
HYDROLO	GY							
		01						
_	drology Indicator		obook all that are	lv)			Coconda	Indicators (minimum of two required)
	cators (minimum o	one required;						Indicators (minimum of two required)
	Water (A1) ater Table (A2)		Salt Crus	: (B11) ivertebrate	e (B13)			e Soil Cracks (B6) ly Vegetated Concave Surface (B8)
Saturation	` '		_ `	Sulfide O	, ,			ge Patterns (B10)
	larks (B1)			on Water T	. ,			ge Patterns (BTO) ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe		ing Roots		re tilled)
	posits (B3)			not tilled)		3	—	h Burrows (C8)
1 1 1	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			s Surface (-	_	orphic Position (D2)
Inundati	on Visible on Aeria	al Imagery (B7)		plain in Re				eutral Test (D5)
☐ Water-S	tained Leaves (B9)					☐ Frost-H	leave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	er Present?		o X Depth (ir					
Water Table	Present?		o X Depth (ir					
Saturation P		Yes No	o X Depth (ir	iches):		Wetl	and Hydrology P	resent? Yes NoX
(includes car	oillary fringe) corded Data (strea	m dalide mon	itoring well serial	nhotos pr	evious inc	nections)	if available:	
Pegeline IVe	oordou Dala (silea	an gauge, mon	noming well, aellal	priotos, pr	CVIOUS IIIS	pooliona),	ii avaliable.	
Remarks:								
ixciliaiks.								





Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fannin Sampling Date: 6/2/201						
Applicant/Owner: Upper Trinity Regional Water District		State: TX	Sampling F	Sampling Point: WP139			
Investigator(s): Jason Voight, Andrew Sample	:						
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave		_ Slope (%):	0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	5247		Long: -95.97617		Datum: NA	D83
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for th							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances" p		es X N	0
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site map				ocations, transects	s, importa	nt feature	s, etc.
Hydrophytic Vegetation Present? Yes X	No	la.	tha Camania d				
Hydric Soil Present? Yes X	No		the Sampled thin a Wetlar	N/			
Wetland Hydrology Present? Yes X	No		umi a wedai	103	"-		
Remarks:							
Heavy storms the previous day; depres				with former char	nnel scar	r; not	
hydraulically connected to any existing	stream	chann	el				
VEGETATION – Use scientific names of plan	nts.						
	Absolute	Domina	nt Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft)			? Status	Number of Dominant S			
Fraxinus pennsylvanica Celtis laevigata	- 30	Yes No	FAC FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	2	(A)
3. Ulmus americana	20	Yes	FAC		_		()
4				Total Number of Domin Species Across All Stra		2	(B)
7.	60	= Total C	over				,
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- 10tai 0	0001	Percent of Dominant Sp That Are OBL, FACW,		100	(A/B)
1. Celtis laevigata		No	FAC FAC	Prevalence Index wor	·kshoot·		
2. Fraxinus pennsylvanica		No	FAC	Total % Cover of:		Jultiply by	
3. Ulmus americana		No	FAC	OBL species			
4	-			FACW species			
5	35	= Total C	over	FAC species			
Herb Stratum (Plot size: 450 sq ft)		- 10tai 0		FACU species	x 4 =	·	_
1. Carex blanda	5	No	FAC	UPL species			
2. Ambrosia trifida		No	FAC	Column Totals:	(A)		(B)
3. Torilis arvensis	5	No	UPL	Prevalence Index	: = B/A =		
4				Hydrophytic Vegetation			
5				1 - Rapid Test for I	Hydrophytic '	Vegetation	
6				2 - Dominance Tes	st is >50%		
8.				3 - Prevalence Inde			
9.				4 - Morphological A	Adaptations ¹	(Provide sup	porting
10				Problematic Hydro			
450.00 ft	20	= Total C	over	<u> </u>			·
Woody Vine Stratum (Plot size: 450 sq ft) 1				¹ Indicators of hydric soi be present, unless dist			must
2				Hydrophytic			
00		= Total C		Vegetation Present? Ye	es X	No	
% Bare Ground in Herb Stratum 80				rieselli! 16	<u> </u>		
Remarks:							

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth Matrix Redox Features								
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-1		<u> </u>						Organic Matter
1-18	10 YR 2/1	95	10 YR 4/6	5	С	M	Clay	
		· · · · · · · · · · · · · · · · · · ·			<u> </u>		· <u></u>	
								
								
		-		-	·			
·				<u> </u>			·	
<u> </u>		· ——		-			. <u></u>	
	oncentration, D=Dep					d Sand G		cation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all	_				Indicators	for Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S				Prairie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (,		=	Surface (S7) (LRR G)
	n Sulfide (A4)				neral (F1)		_	Plains Depressions (F16)
	Layers (A5) (LRR I			Gleyed M			_ `	RR H outside of MLRA 72 & 73)
	ick (A9) (LRR F, G,			ed Matrix (. ,			ed Vertic (F18)
	d Below Dark Surfac ark Surface (A12)	e (ATT)		Dark Surf	ace (F6) urface (F7)			arent Material (TF2) Shallow Dark Surface (TF12)
	fucky Mineral (S1)			Depression				(Explain in Remarks)
	/lucky Peat or Peat (S2) (LRR (essions (F	16)		of hydrophytic vegetation and
	icky Peat or Peat (S				73 of LRR	,		d hydrology must be present,
		, , ,	,			,		disturbed or problematic.
Restrictive I	_ayer (if present):							·
Type:								
Depth (inc	ches):						Hvdric Soil	Present? Yes X No No
Remarks:	,							
Redox fe	atures presen	t: Tinn c	lav. occasion	ally flo	oded is	nation	ally listed h	nydric soil; naturally dark soil
		-,						
HYDROLO	GY							
Wetland Hy	drology Indicators:							
_	cators (minimum of c		d check all that ann	(v)			Seconda	ary Indicators (minimum of two required)
-	Water (A1)	no regaire	Salt Crust					face Soil Cracks (B6)
	iter Table (A2)		Aguatic In		oo (P12)			rsely Vegetated Concave Surface (B8)
			Hydrogen		,			inage Patterns (B10)
Saturation Water M	arks (B1)							dized Rhizospheres on Living Roots (C3)
	` '		_ `		Table (C2) eres on Livi	D		1 0 ()
	nt Deposits (B2)			•		ng Roots	` ′ ┌┐ `	/here tilled)
1 1 1 1	oosits (B3)		_ `	not tilled) ed Iron (C4	\		yfish Burrows (C8)
-	at or Crust (B4)				•	·)		uration Visible on Aerial Imagery (C9)
	oosits (B5)	/D:	Thin Muck		. ,			omorphic Position (D2)
	on Visible on Aerial I	imagery (B	7) <u> </u>	piain in Re	emarks)			C-Neutral Test (D5)
	tained Leaves (B9)						<u> </u>	st-Heave Hummocks (D7) (LRR F)
Field Obser		,	. X					
Surface Water			No X Depth (in					
Water Table Present? Yes No _X Depth (inches):								V
Saturation P		es	No X Depth (in	ches):		_ Wet	land Hydrolog	y Present? Yes X No
(includes cap Describe Red	oillary fringe) corded Data (stream	ndaude mo	nitoring well aerial	photos p	revious ins	nections)	if available:	
200011001100	co. aca bata (stream	. gaago, mic		μοιου, μ	. 5415005 1115	, , , , , , , , , , , , , , , , , , , ,	, available.	
Damanto								
Remarks:								













Project/Site: Lake Ralph Hall	(City/Count	y: <u>Ladonia/F</u>	annin	Sampling [Date: <u>6/1/20</u>)17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling F	oint: WP16	32
Investigator(s): Jason Voight, Andrew Sample		Section, To	ownship, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley		Local relie	f (concave,	convex, none): Concav	⁄e	_ Slope (%	o): <u>0-1%</u>
				Long: <u>-95.97792</u>			
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI class			
Are climatic / hydrologic conditions on the site typical for	this time of ve	ar? Yes					
Are Vegetation, Soil, or Hydrology						es X	Nο
Are Vegetation, Soil _X, or Hydrology				eeded, explain any ansv			
SUMMARY OF FINDINGS – Attach site ma							as atc
Odminate of The ind	p snowing	Sampin	ig point i				
Hydrophytic Vegetation Present? Yes X		ls t	he Sampled	Area			
Hydric Soil Present? Yes	No X		nin a Wetlar		No	Х	
Wetland Hydrology Present? Yes X	No						
Remarks:				و ما الممال و المال	4 l 4 -		4:
depressional area associated with for	mer chan	nei sca	ir; not ny	draulically conf	nected to a	any exis	ating
stream channel							
VEGETATION – Use scientific names of pla	ants.						
700 cg ft	Absolute		t Indicator	Dominance Test wo	rksheet:		
Tree Stratum (Plot size: 700 sq ft 1. Fraxinus pennsylvanica	<u>% Cover</u> 10	Species?	FAC	Number of Dominant			
2. Celtis laevigata	20	Yes	FAC	That Are OBL, FACV (excluding FAC-):	V, or FAC	2	(A)
3. Ulmus crassifolia	50	Yes	FAC		-in-ont		_ ` ′
4.			-	Total Number of Don Species Across All S		2	(B)
	70	= Total Co	ver	Paraent of Dominant	Chaoina		_
Sapling/Shrub Stratum (Plot size: 700 sq ft)		- 10101 00		Percent of Dominant That Are OBL, FACV		100	_ (A/B)
1. Celtis laevigata	10	No	FAC	Dravelance Index w	aulcoboot.		
2. Ulmus crassifolia	10	No	FAC	Prevalence Index w Total % Cover of		Multiply by:	
3. Ilex decidua	10	No	FAC	OBL species			
4				FACW species			
5	35			FAC species			
Herb Stratum (Plot size: 450 sq ft)		= Total Co	over	FACU species			
1. Elymus virginicus	3	No	FAC	UPL species			
2. Viola missouriensis	5	No	FACW	Column Totals:	(A)		(B)
3. Torilis arvensis	5	No	UPL	Danielan en la d	D/A		
4. Ambrosia trifida	2	No	FAC	Prevalence Ind			
5				1 - Rapid Test fo			
6				2 - Dominance T		vogotation	
7		-		3 - Prevalence Ir			
8				4 - Morphologica	al Adaptations ¹	(Provide su	upporting
9			-		irks or on a sep		,
10	15	= Total Co	avor.	Problematic Hyd	rophytic Veget	tation' (Expl	ain)
Woody Vine Stratum (Plot size: 450 sq ft)		= Total CC	IVEI	¹ Indicators of hydric s			must
1. Toxicodendron radicans	3	No	FACU	be present, unless di	sturbed or pro	blematic.	
2. Smilax bona-nox/Campsis radicans	3	No	FAC/UFACU	Hydrophytic			
0/ Dava Craumdin Hart Otari 85	6	= Total Co	ver	Vegetation Present?	Yes X	No	
% Bare Ground in Herb Stratum 85 Remarks:							
nomano.							

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	ndicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature		. 2	_	
(inches)	Color (moist)		Color (moist)	<u>%</u>	Type'	Loc ²	Texture	Remarks
0-4						-		Organic Matter
4-18	10 YR 2/1	100					Clay	
								
¹ Type: C=C	oncentration, D=De	epletion, RM=F	Reduced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Loc	cation: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all L	RRs, unless othe	rwise not	ed.)			for Problematic Hydric Soils ³ :
Histosol			Sandy	Gleyed Ma	atrix (S4)		1 cm N	Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•		_	Prairie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			Surface (S7) (LRR G)
	en Sulfide (A4)			Mucky Mir			_	Plains Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G	,		Gleyed Ma				RR H outside of MLRA 72 & 73) ed Vertic (F18)
	d Below Dark Surfa			d Matrix (I Dark Surfa	,			arent Material (TF2)
	ark Surface (A12)	icc (A11)			ırface (F7)			Shallow Dark Surface (TF12)
	/lucky Mineral (S1)			Depression	, ,			(Explain in Remarks)
2.5 cm l	Mucky Peat or Pea	t (S2) (LRR G ,	H) High Pl	ains Depre	essions (F	16)	3Indicators	of hydrophytic vegetation and
□ 5 cm Mι	ucky Peat or Peat (S3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetland	d hydrology must be present,
							unless	disturbed or problematic.
Restrictive	Layer (if present):							
Type:			<u>—</u>					V
Depth (in	ches):		 ;				Hydric Soil	Present? Yes No _X
Remarks:								
No rodo	, footuros. T	ا برمام مامند	a a a a a i a a a llu	floodo	d io no	tionall	v lieted by	drie eeil: neturelly derk eeil
ino redo	k realures, r	iriri Ciay, (occasionally	noode	u is na	uonan	y listed fly	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicators	2.						
-	cators (minimum of		check all that ann	v)			Seconda	ary Indicators (minimum of two required)
	Water (A1)	ono reganea,	Salt Crust					face Soil Cracks (B6)
					s (B13)		_	rsely Vegetated Concave Surface (B8)
☐ High Water Table (A2) ☐ Aquatic Invertebrates (B13) ☐ Sparsely Vegetated Concave Surface (Bind) ☐ Saturation (A3) ☐ Hydrogen Sulfide Odor (C1) ☐ Drainage Patterns (B10)								
	larks (B1)		Dry-Seaso					dized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)				res on Livi	ina Roots		/here tilled)
	posits (B3)			not tilled)				yfish Burrows (C8)
	at or Crust (B4)		Presence			!)		uration Visible on Aerial Imagery (C9)
"	posits (B5)		Thin Muck			,		omorphic Position (D2)
Inundati	on Visible on Aeria	I Imagery (B7)	Other (Ex	olain in Re	emarks)		☐ FAC	C-Neutral Test (D5)
☐ Water-S	tained Leaves (B9)					☐ Fros	st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Wat	er Present?	Yes N	o X Depth (in	ches):				
Water Table			Depth (in					
Saturation P	resent?		Depth (in				and Hydrolog	y Present? Yes X No
(includes cap								
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
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	ampling Point: WP216	
Investigator(s): Jason Voight, Andrew Sample Section, Township, Range:							
Landform (hillslope, terrace, etc.): Valley				-		Slope (%): 0-1%	
Subregion (LRR): Southwest Prairies							
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for t							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"		Yes X N	lo.
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							es, etc.
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes X	No.			•			
Wetland Hydrology Present? Yes X Remarks:	No	Wit	hin a Wetlar	nd? Yes^	NO		
depressional area associated with for	mer chan	nel sca	ar not hy	draulically conne	cted to	any exist	tina
stream channel	ilici cilali	11101 300	ai, iiot iiy	dradiloally colline	,cica ic	dily Chis	urig
VEGETATION – Use scientific names of pla	ints.						
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		nt Indicator Status	Dominance Test work			
1. Fraxinus pennsylvanica	20	Yes	FAC	Number of Dominant S That Are OBL, FACW,			
2. Celtis laevigata	35	Yes	FAC	(excluding FAC-):		3	(A)
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Domir	nant		
4		-		Species Across All Stra	ıta:	3	(B)
Continue Charles (Plat since 700 sq ft	75	= Total Co	over	Percent of Dominant S		400	
Sapling/Shrub Stratum (Plot size: 700 sq ft) 1. Celtis laevigata	10	No	FAC	That Are OBL, FACW,	or FAC:	100	(A/B)
2. Ulmus crassifolia	5	No	FAC	Prevalence Index wor	ksheet:		
3. Fraxinus pennsylvanica	10	No	FAC	Total % Cover of:		Multiply by:	
4. Styphnolobium affine	5	No	UPL	OBL species			
5				FACW species			
450 sq.ft	30	= Total Co	over	FACULARIANIA		_	
Herb Stratum (Plot size: 450 sq ft 1. Elymus virginicus	3	No	FAC	FACU species UPL species		4 = 5 <i>-</i>	
2. Toxicodendron radicans	5	No	FACU	Column Totals:			
3. Lolium perenne	2	No	FACU		(//	/	(5)
4.				Prevalence Index			_
5.				Hydrophytic Vegetation			
6				1 - Rapid Test for I		•	
7				2 - Dominance Tes			
8				4 - Morphological			nortina
9			<u> </u>	data in Remark	s or on a s	separate sheet)
10				Problematic Hydro	phytic Ve	getation ¹ (Expla	ain)
Woody Vine Stratum (Plot size: 450 sq ft)	10	= Total Co	over	¹ Indicators of hydric so	il and wetl	and hydrology	must
1. Toxicodendron radicans	5	No	FACU	be present, unless dist			
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic			
	10	= Total Co	over	Vegetation	s X	No	
% Bare Ground in Herb Stratum 90				Present? Ye	s_ <u>^</u>	NO	
Remarks:							

Profile Desc	cription: (Describe	to the dep	th needed to docur	ment the	indicator	or confir	m the absence	of indicators.)
Depth	1 2					-		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-1						-		Organic Matter
1-3	10 YR 2/1	95	10 YR 4/6	5	С	M	Clay	Redox in upper portions
3-18	10 YR 2/1	100						
				-			-	
l ———						-		
¹Type: C=C	oncentration, D=De	oletion. RM=	Reduced Matrix, CS	S=Covere	d or Coate	d Sand G	Grains. ² Lo	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless other					for Problematic Hydric Soils ³ :
Histosol					atrix (S4)		_	Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S	, ,			Prairie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (Surface (S7) (LRR G)
Hydroge	en Sulfide (A4)		Loamy	Mucky Mi	neral (F1)		High F	Plains Depressions (F16)
	d Layers (A5) (LRR		Loamy	Gleyed M	latrix (F2)		(LF	RR H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,			d Matrix	. ,			ed Vertic (F18)
	d Below Dark Surfac	ce (A11)	_	Dark Surf	. ,			arent Material (TF2)
	ark Surface (A12)				urface (F7)			Shallow Dark Surface (TF12)
	Mucky Mineral (S1)	(CO) (LDD (Depressio	ns (F8) essions (F	16)		(Explain in Remarks)
	Mucky Peat or Peat ucky Peat or Peat (S		·		73 of LRR	,		of hydrophytic vegetation and dhydrology must be present,
J CIII WIC	icky i eat of i eat (C	55) (LIXIX I)	(IAIL	.NA 12 Q	75 OI LIKIK	•••)		disturbed or problematic.
Restrictive	Layer (if present):						1	adictarboa or problematic.
Type:	,							
, , <u> </u>	ches):						Hydric Soil	Present? Yes X No
Remarks:								
Redox fe	atures presen	it ; Tinn d	clay, occasion	ally flo	oded is	natior	nally listed	hydric soil; naturally dark soil
HYDROLO	C.V.							
	drology Indicators			`			0 1	
		one required	d; check all that appl					ary Indicators (minimum of two required)
	Water (A1)		Salt Crust		(5.40)			face Soil Cracks (B6)
I — "	ater Table (A2)		Aquatic In					rsely Vegetated Concave Surface (B8)
Saturation			Hydrogen		, ,			inage Patterns (B10)
	larks (B1)		Dry-Seaso		` ′	_		dized Rhizospheres on Living Roots (C3)
111	nt Deposits (B2)				eres on Liv	ing Roots		vhere tilled)
111	posits (B3)			not tilled	•			yfish Burrows (C8)
	at or Crust (B4)		Presence			+)		uration Visible on Aerial Imagery (C9)
`	posits (B5)		Thin Muck					omorphic Position (D2)
	on Visible on Aerial	Imagery (B7	7) <u> </u>	olain in R	emarks)			C-Neutral Test (D5)
_	tained Leaves (B9)						<u></u> Fro:	st-Heave Hummocks (D7) (LRR F)
Field Obser			. X					
Surface Wat			No X Depth (in					
Water Table			No X Depth (in					V
Saturation P		Yes I	No X Depth (in	ches):		_ Wet	tland Hydrolog	y Present? Yes X No
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:								
(2 (3								
Remarks:								
i								





Project/Site: Lake Ralph Hall		City/County	/: Ladonia/F	annin	Sampling D	Date: <u>6/1/20</u>)17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	_ Sampling F	Point: WP24	19
Investigator(s): Jason Voight, Andrew Sample		Section, To	ownship, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley		Local relie	f (concave,	convex, none): Concav	е	_ Slope (%	o): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	45387		Long: <u>-95.97784</u>		Datum: N.	AD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classi			
Are climatic / hydrologic conditions on the site typical for	this time of year	ar? Yes					
Are Vegetation, Soil, or Hydrology						es X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answ			
SUMMARY OF FINDINGS – Attach site ma							es. etc
			3 p				
	No	ls th	ne Sampled	l Area			
	No X	with	nin a Wetlar	nd? Yes	No	X	
Wetland Hydrology Present? Yes Remarks:	NO						
depressional area associated with fo	rmar chan	nel cca	r: not hy	draulically conr	acted to	any avic	etina
stream channel	illiel Chari	illei sca	i, not my	diadilically collin	ecieu io a	arry GAIS	stirig
Stream chainer							
VEGETATION – Use scientific names of pl	ants.						
Tree Stratum (Plot size: 700 sq ft)	Absolute		t Indicator	Dominance Test wo	rksheet:		
1. Fraxinus pennsylvanica	<u>% Cover</u>	Species? No	FAC	Number of Dominant That Are OBL, FACW			
2. Celtis laevigata	45	Yes	FAC	(excluding FAC-):	, 01 FAC	3	(A)
3. Ulmus crassifolia	40	Yes	FAC	Total Number of Dom	inant		
4.				Species Across All St		3	_ (B)
	95	= Total Co	ver	Percent of Dominant	Snecies		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	40	NI-	LIDI	That Are OBL, FACW		100	_ (A/B)
1. Styphnolobium affine	<u>10</u>	No No	UPL FAC	Prevalence Index wo	orksheet:		
2. Celtis laevigata			FAC	Total % Cover of		Multiply by:	
3			· ——	OBL species		=	
4. 5.		-		FACW species	x 2 =	=	
	4 =	= Total Co	ver	FAC species	x 3 =	=	
Herb Stratum (Plot size: 450 sq ft)				FACU species			
1. Elymus virginicus	80	Yes	FAC	UPL species			
2. Toxicodendron radicans		No	FACU	Column Totals:	(A)		(B)
3. Parthenocissus quinquefolia	10	No	FACU	Prevalence Inde	ex = B/A =		
4				Hydrophytic Vegeta			
5			·	1 - Rapid Test for	r Hydrophytic '	Vegetation	
6				2 - Dominance Telescope 2 - Dominance Telescope 3 - Dominance Telescope 4 - Dominance Telescope 5 - Dominance Telescope 4 - Dominance Telescope 5 - Dominance Telesco	est is >50%		
7 8		-		3 - Prevalence In	dex is ≤3.0 ¹		
9.				4 - Morphologica data in Remai	Adaptations ¹	(Provide su	upporting
10.				Problematic Hydi			,
	95	= Total Co	ver	-		, ,	,
Woody Vine Stratum (Plot size: 450 sq ft)	_	NI.	E4.011	¹ Indicators of hydric s be present, unless dis			/ must
Toxicodendron radicans Parthenocissus quinquefolia	<u>5</u>	No No	FACU FACU				
2. 1 armenocissus quinqueiona				Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 5	10	= Total Co	ver	Present? Y	es X	No	
Remarks:				.1			

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature	S1	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	100					Clay	
					. '			_
					· ——			_
-	-			-				
1- 0.0							2, 2,	
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all Li	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
Black Hi	en Sulfide (A4)			d Matrix (S Mucky Mir	,		=	s Depressions (F16)
	d Layers (A5) (LRR	E)		Gleyed Ma	, ,		_	l outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,			d Matrix (_ `	Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	,			urface (F7))		ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Exp	olain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G ,	H) \square High Pla	ains Depre	essions (F	16)	³ Indicators of h	ydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(ML	RA 72 & 1	73 of LRR	R H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:			<u> </u>					V.
Depth (inc	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:								
No redox	features; Ti	nn clay, c	occasionally	floode	ed is na	ationall	ly listed hydr	ic soil; naturally dark soil
	OV							
HYDROLO								
-	drology Indicators							
-	cators (minimum of	one required;						ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)				Soil Cracks (B6)
High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)			y Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		☐ Drainag	e Patterns (B10)
Water M	arks (B1)		Dry-Seaso	n Water 1	Γable (C2)		U Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (when	re tilled)
☐ Drift Dep	oosits (B3)		(where	not tilled)			Crayfish	n Burrows (C8)
│	at or Crust (B4)		Presence			4)	Saturati	on Visible on Aerial Imagery (C9)
│	osits (B5)		H Thin Muck	Surface ((C7)			rphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B7)	U Other (Exp	olain in Re	emarks)		☐ FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)
Field Obser			.,					
Surface Water			o X Depth (in					
Water Table	Present?	Yes No	Depth (in	ches):				
Saturation P			Depth (in				land Hydrology Pr	resent? Yes NoX
(includes cap	oillary fringe)							
Describe Re	corded Data (strear	n gauge, moni	toring well, aerial	pnotos, pr	eviou s ins	spections),	, it available:	
Remarks:								
I								





Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin Sampling Date: 6/1/2017							
Applicant/Owner: Upper Trinity Regional Water District				State: TX	_ Sampline	g Point: WP25	50	
Investigator(s): Jason Voight, Andrew Sample				inge:				
Landform (hillslope, terrace, etc.): Valley		Local relie	of (concave,	convex, none): Concave		Slope (%): <u>0-1%</u>	
Subregion (LRR): Southwest Prairies								
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classification: none				
Are climatic / hydrologic conditions on the site typical for								
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X I	No	
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site m							es, etc	
Hydrophytic Vegetation Present? Yes X	No	lo ti	he Sampled	l Area				
Hydric Soil Present? Yes X	No		ne Sampied hin a Wetlai		No			
Wetland Hydrology Present? Yes X Remarks:	No							
depressional area associated with fo	ormer chan	nel sca	r. not h	draulically conne	ected to	anv exis	stina	
stream channel			,			, o, o	9	
VEGETATION – Use scientific names of p								
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover	Dominan Species?	t Indicator Status	Dominance Test worl				
1. Fraxinus pennsylvanica	45	Yes	FAC	Number of Dominant S That Are OBL, FACW,				
2. Celtis laevigata	25	Yes	FAC	(excluding FAC-):		3	_ (A)	
3. Ulmus crassifolia	20	Yes	FAC	Total Number of Domin		0		
4				Species Across All Stra	ata:	3	_ (B)	
Sapling/Shrub Stratum (Plot size: 700 sq ft	90	= Total Co	over	Percent of Dominant S		100	(A (D)	
1. Celtis laevigata	5	No	FAC	That Are OBL, FACW,	or FAC:	100	_ (A/B)	
2. Ulmus crassifolia	5	No	FAC	Prevalence Index wo	rksheet:			
3. Fraxinus pennsylvanica	15	No	FAC	Total % Cover of:				
4. Ulmus americana	10	No	FAC	OBL species				
5				FACW species				
Herb Stratum (Plot size: 450 sq ft	35	= Total Co	over	FAC species FACU species			_	
Herb Stratum (Plot size: 450 sq ft 1. Ambrosia trifida	1	No	FAC	UPL species			_	
2. Styphnolobium affine	1	No	UPL	Column Totals:				
3.								
4.				Prevalence Index				
5				Hydrophytic Vegetati				
6				1 - Rapid Test for 2 - Dominance Te		-		
7				3 - Prevalence Ind				
8				4 - Morphological			upportina	
9				data in Remark	s or on a	separate shee	t)	
10				Problematic Hydro	phytic Ve	getation ¹ (Expl	ain)	
Woody Vine Stratum (Plot size: 450 sq ft		= Total Co		¹ Indicators of hydric so be present, unless dist			must	
1 2				Hydrophytic				
		= Total Co		Vegetation	es X	No		
% Bare Ground in Herb Stratum 98 Remarks:								

Profile Desc	cription: (Describe	to the dep	th needed to docur	nent the	indicator	or confir	m the absence	of indicators.)
Depth	Matrix			x Feature		2	_	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	_Loc ²	<u>Texture</u>	Remarks
0-1								Organic Matter
1-3	10 YR 2/1	95	10 YR 4/6	5	С	M	Clay	Redox in upper portions
3-18	10 YR 2/1	100						
				-				
	-					-	<u> </u>	
1Typo: C-C	oncontration D-Do	olotion PM-	Reduced Matrix, CS	S-Covere	d or Coate	d Sand (Grains ² Lo	cation: PL=Pore Lining, M=Matrix.
			LRRs, unless other			u Sanu C		s for Problematic Hydric Soils ³ :
Histosol		Jubio to un			atrix (S4)		_	Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S	, ,			Prairie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (Surface (S7) (LRR G)
	en Sulfide (A4)				ineral (F1)			Plains Depressions (F16)
	d Layers (A5) (LRR	F)			latrix (F2)		_	RR H outside of MLRA 72 & 73)
🔲 1 cm Mւ	uck (A9) (LRR F, G,	H)	Deplete	d Matrix	(F3)		Reduc	ced Vertic (F18)
	d Below Dark Surfac	ce (A11)	_	Dark Surf	. ,			arent Material (TF2)
	ark Surface (A12)				urface (F7)			Shallow Dark Surface (TF12)
	Mucky Mineral (S1)			Depression				(Explain in Remarks)
	Mucky Peat or Peat		·		essions (F	,		of hydrophytic vegetation and
5 cm IVI	ucky Peat or Peat (S	3) (LRR F)	(ML	KA /2 &	73 of LRR	H)		d hydrology must be present,
Restrictive	Layer (if present):						uniess	s disturbed or problematic.
	Layer (ii present).							
Type:	-l \ .						Unadaia Cail	Present? Yes X No
	ches):						Hydric Soil	rresent? resNo
Remarks:								
Redox fe	atures preser	nt: Tinn c	lay occasion:	ally flo	ei hahn	nation	ally listed	hydric soil; naturally dark soil
Tredox 10	atures preser		nay, occasion	any no	0000 15	Hatioi	idily listed i	Trydne 3011, Hatarany dark 3011
HYDROLO	GY							
Wetland Hv	drology Indicators	:						
_			d; check all that appl	v)			Seconda	ary Indicators (minimum of two required)
	Water (A1)	0.10 10 quil 0 0	Salt Crust					face Soil Cracks (B6)
	ater Table (A2)		Aquatic In		as (R13)			arsely Vegetated Concave Surface (B8)
Saturation	` '		Hydrogen					inage Patterns (B10)
	larks (B1)		_ ` `		Table (C2)			dized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		— '		eres on Liv	ina Roots		vhere tilled)
111	posits (B3)			not tilled		ing record		yfish Burrows (C8)
111	at or Crust (B4)				, ed Iron (C4	1)		uration Visible on Aerial Imagery (C9)
	posits (B5)		Thin Muck			")		omorphic Position (D2)
`	on Visible on Aerial	Imagery (B7			. ,			C-Neutral Test (D5)
	stained Leaves (B9)	imagory (Di) <u> </u>	J. G. III III II	omanoj			st-Heave Hummocks (D7) (LRR F)
Field Obser	` '							et rieuve riummeene (27) (21tt 1)
Surface Wat		/es I	No X Depth (in	ches).				
Water Table			No X Depth (in					
			No X Depth (in				41 a.a. al III alma I a.a.	y Present? Yes X No
Saturation P (includes car		res	No Depth (In	cnes):		_ we	tiana Hyarolog	y Present? Yes^ No
		n gauge, mo	nitoring well, aerial	photos, p	reviou s ins	pections)), if available:	
Remarks:								
1								







Applicant/Owner: Upper Trinity Regional Water District Investigator(s): Jason Voight, Andrew Sample Section, Township, Range: Landform (hillstope, terrace, etc.): Valley Local relief (concave, convex, none): Concave Subregion (LRR): Southwest Prairies Lat: 33.453 Long: -95.97744 Soil Map Unit Name: Tinn Clay, Occasionally Flooded 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 disturbed? Are "Normal Circumstances" present? Ye Are Vegetation Soil X, or Hydrology naturally problematic? (If needed, explain any answers in Remark SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, importal Hydrory Present? Yes X No Island Brown Indicator Ves X No Weltand Hydrology Present? Yes X No Monday Island Brown	Slope (%): 0-1 _ Datum: NAD83 01A (es _ X No rks.)
Landform (hillslope, terrace, etc.): Valley Subregion (LRR): Southwest Prairies Lat: 33.453 Long: 95.97744 Long: 95.97744 Long: 95.97744 Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil On the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil On the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation Soil On the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation On the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are Vegetation On the site typical for this time of year? Yes X No (If no, explain in Remarks.) Are "Normal Circumstances" present? Yes X No (If no, explain any answers in Remark SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, importate within a Wetland? Yes X No (If no, explain in Remarks.) By the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) By the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Long: 95.97744 Long: 95.97744 Long: 95.97744 Long: 95.97744 Are "Normal Circumstances" present? Yes X No (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Long: (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Is the Sampled Area within a Wetland? Yes X No (If no, explain in Remarks.) Long: (If noeded, explain any answers in Remarks.) Long: (If noeded, explain any answers in Remarks.) Long: (If no	Datum: NAD83 O1A Yes X No rks.) Ant features, etc.
Subregion (LRR): Southwest Prairies Lat: 33.453 Long: -95.97744 NWI classification: PFO1	Datum: NAD83 O1A Yes X No rks.) Ant features, etc.
Subregion (LRR): Southwest Prairies Lat: 33.453 Long: -95.97744 NWI classification: PFO1 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 disturbed? Are "Normal Circumstances" present? Year Vegetation , Soil X , or Hydrology , naturally problematic? (If needed, explain any answers in Remarks) SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, importated by detailed hydrology Present? Yes X No	Datum: NAD83 O1A Yes X No rks.) Ant features, etc.
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 disturbed? Are "Normal Circumstances" present? Ye Are Vegetation , Soil X , or Hydrology , naturally problematic? (If needed, explain any answers in Remark SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, importated Hydrophytic Vegetation Present? Yes X No	rks.) ant features, etc
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 disturbed? Are "Normal Circumstances" present? Yes Are Vegetation , Soil X , or Hydrology naturally problematic? (If needed, explain any answers in Remarks SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, importation of the state of the sample of	rks.) ant features, etc
Are Vegetation, Soil, or Hydrology significantly disturbed?	rks.) ant features, etc
Are Vegetation, Soil _ X _, or Hydrology naturally problematic? (If needed, explain any answers in Remark SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, importation of the property of the pr	rks.) ant features, etc
SUMMARY OF FINDINGS — Attach site map showing sampling point locations, transects, importal Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland? Yes X No Within a Wetland? Yes X No Dominant Indicator Species? Status Yes FAC Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Percent of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: Total Number of Dominant Species That Are OBL, FACW, or FAC: OBL species	ant features, et
Hydrophytic Vegetation Present? Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: delineated during heavy storm; similar to wp86. depressional area associated with form scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft	
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: delineated during heavy storm; similar to wp86. depressional area associated with form scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft % Cover Species? Status 1. Fraxinus pennsylvanica 45 Yes FAC 2. Celtis laevigata 25 Yes FAC 3. Ulmus crassifolia 4.	
Hydric Soil Present? Wetland Hydrology Present? Wetland Hydrology Present? Remarks: delineated during heavy storm; similar to wp86. depressional area associated with form scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft / 2. Celtis laevigata	
Remarks: delineated during heavy storm; similar to wp86. depressional area associated with form scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft	
delineated during heavy storm; similar to wp86. depressional area associated with form scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft	ner channel
scar; not hydraulically connected to any existing stream channel VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft 1, Fraxinus pennsylvanica 2. Celtis laevigata 3. Ulmus crassifolia 4	ner channel
VEGETATION – Use scientific names of plants. Tree Stratum (Plot size: 700 sq ft 1, Fraxinus pennsylvanica 2. Celtis laevigata 3. Ulmus crassifolia 4. Absolute % Cover Species? Status Yes FAC (excluding FAC-): — Total Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): — Total Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): — Total Number of Dominant Species Across All Strata: — Species Across All Strata: — Percent of Dominant Species That Are OBL, FACW, or FAC: — Total Number of Dominant Species That Are OBL, FACW, or	
Absolute % CoverDominant Indicator Species? Status1. Fraxinus pennsylvanica45YesFAC2. Celtis laevigata25YesFAC3. Ulmus crassifolia20YesFAC4	
Absolute % CoverDominant Indicator Species? Status1. Fraxinus pennsylvanica45YesFAC2. Celtis laevigata25YesFAC3. Ulmus crassifolia20YesFAC4	
1. Fraxinus pennsylvanica 2. Celtis laevigata 2. Ulmus crassifolia 3. Fraxinus pennsylvanica 4. Ulmus americana 4. Ulmus americana 4. Ulmus americana 4. Ulmus americana 4. Ulmus crassifolia 4. Ulmus americana 5. Total Cover 4. Ulmus americana 6. Total % Cover of: 6. OBL species 6. X 2 = 6. FAC w species 7. X 1 = 7. FAC w species 7. X 2 = 7. FAC w species 7. X 2 = 7. X 3 = 7. X 3 = 7. X 4 C x 5 = 7. X 5 C x 5 = 7. X 5 C x 5 = 7. X 6 C x 5 = 7. X 7 C x 5 = 7. X 8 C x 5 = 7. X 8 C x 5 = 7. X 8 C x 5 = 7. X 9 C x 5 = 7. X 1 = 7. X 1 = 7. X 1 = 7. X 2 = 7. X 2 = 7. X 3 = 7. X 4 C x 5 = 7. X 4 C x 5 = 7. X 5 C x 5 = 7. X 7 C x 5 = 7. X 1 = 7. X	
2. Celtis laevigata 2. Ulmus crassifolia 3. Fraxinus pennsylvanica 4. Ulmus americana 2. Ulmus americana 2. Ulmus americana 2. Ulmus crassifolia 3. Fraxinus pennsylvanica 4. Ulmus americana 3. Fraxinus pennsylvanica 3. Fraxinus pennsylvanica 4. Ulmus americana 3. Fraxinus pennsylvanica 3. Fraxinus pennsylvanica 4. Ulmus americana 5. Fraxinus pennsylvanica 6. Fraxinus pennsylvanica 7. Fra	
3. Ulmus crassifolia 4	3 (A)
4	(A)
Sapling/Shrub Stratum (Plot size: 700 sq ft) 90 = Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC:	3 (B)
Sapling/Shrub Stratum (Plot size: 700 sq ft) 5 No FAC No FAC Percent of Dominant Species That Are OBL, FACW, or FAC:	(B)
1. Celtis laevigata 5 No FAC 2. Ulmus crassifolia 5 No FAC 3. Fraxinus pennsylvanica 15 No FAC 4. Ulmus americana 10 No FAC 5. Secretary 35 = Total Cover FAC species X 2 = FAC species X 3 =	100 (A/B
2. Offinds crassificial 3 No FAC Total % Cover of: M 3. Fraxinus pennsylvanica 15 No FAC OBL species X 1 = FACW species X 2 = FAC species X 3 = Total Cover	(A/b)
4. Ulmus americana 10	
5	
35 = Total Cover FAC species x 3 =	
1. Ambrosia trifida 1 No FAC UPL species x 5 =	
2. Styphnolobium affine 1 No UPL Column Totals:(A)	
3	(5)
4 Prevalence Index = B/A =	
5 Hydrophytic Vegetation Indicator	
E 1 - Rapid Test for hydrophytic	Vegetation
7.	
3 - Prevalence Index is \$3.0	1
9 4 - Morphological Adaptations ¹ data in Remarks or on a sep	
10 Problematic Hydrophytic Veget	
2 = Total Cover	etation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft) 1Indicators of hydric soil and wetlan be present, unless disturbed or prol	` ' '
1	nd hydrology must
2 Hydrophytic = Total Cover Vegetation	nd hydrology must
	nd hydrology must oblematic.
Remarks:	nd hydrology must
	nd hydrology must oblematic.

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the i	ndicator	or confirr	n the absence o	of indicators.)
Depth	Matrix			ox Feature	S			
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	95	10 YR 4/6	5	C	M	Clay	
							·	
·								
							·	
	-							
	oncentration, D=Dep					d Sand G		ation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	cable to all	_				_	or Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				uck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5				rairie Redox (A16) (LRR F, G, H)
Black Hi	, ,		_ :	ed Matrix (S			=	urface (S7) (LRR G)
	n Sulfide (A4)	- \		Mucky Mir			_	ains Depressions (F16)
	d Layers (A5) (LRR ick (A9) (LRR F, G,			Gleyed Ma ed Matrix (I			_ `	R H outside of MLRA 72 & 73) d Vertic (F18)
	d Below Dark Surfac			Dark Surfa	,			rent Material (TF2)
	ark Surface (A12)	C (A11)	_	ed Dark Su	. ,			allow Dark Surface (TF12)
	fucky Mineral (S1)			Depression	, ,			Explain in Remarks)
	lucky Peat or Peat	(S2) (LRR (lains Depre	, ,	16)		f hydrophytic vegetation and
	icky Peat or Peat (S			LRA 72 & 7	,			hydrology must be present,
							unless	disturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil F	Present? Yes X No No
Remarks:								
Redox fe	atures presen	it; Tinn d	clay, occasion	ally floo	oded is	nation	ally listed h	ydric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators							
Primary India	cators (minimum of	one require	d; check all that app	oly)			Secondar	y Indicators (minimum of two required)
Surface	Water (A1)		Salt Crus	t (B11)			☐ Surfa	ce Soil Cracks (B6)
	iter Table (A2)			nvertebrate	s (B13)			sely Vegetated Concave Surface (B8)
Saturation			= .	Sulfide O	,			age Patterns (B10)
	arks (B1)			on Water T				zed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe	, ,	na Roots	· 	nere tilled)
	posits (B3)			not tilled)			` ′ 🗂 `	ish Burrows (C8)
	at or Crust (B4)			of Reduce		1)		ation Visible on Aerial Imagery (C9)
-	oosits (B5)		_	k Surface (•	,		norphic Position (D2)
	on Visible on Aerial	Imagery (B	_	plain in Re				Neutral Test (D5)
_	tained Leaves (B9)	inagory (D	., <u> </u>	.piaiii iii ito	marko)			-Heave Hummocks (D7) (LRR F)
Field Obser	. ,						<u> </u>	(2.1)
Surface Water		/es	No X Depth (ir	nches).				
Water Table			No X Depth (ii					
						l l		Brananta Van X
Saturation Pi		es	No X Depth (ir	icnes):		_ vvet	ianu mydrology	Present? Yes X No No
	corded Data (stream	n gauge, mo	onitoring well, aerial	photos, pr	eviou s ins	pections),	, if available:	
Remarks:								

Project/Site: Lake Ralph Hall Supplemental JD	I JD City/County: Ladonia/Fannin Sampling Date: 6/2/201							
Applicant/Owner: Upper Trinity Regional Water District					State: TX	Sampling	g Point: WP3	05
Investigator(s): Jason Voight, Andrew Sample								
Landform (hillslope, terrace, etc.): Valley		Local r	elief (conca	ve, convex	, none): Concave		Slope (%	6): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	15236		Long	-95.97613		Datum: N	AD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded					NWI classific			
Are climatic / hydrologic conditions on the site typical for t								
Are Vegetation, Soil, or Hydrology					l Circumstances" p			No
Are Vegetation, SoilX, or Hydrology	_				explain any answe			
SUMMARY OF FINDINGS – Attach site ma				•			,	es, etc
Hydrophytic Vegetation Present? Yes X	No		Is the Sam	nled Area				
Hydric Soil Present? Yes Wetland Hydrology Present? Yes	No X		within a We	•	Yes	No	Х	
Wetland Hydrology Present? Yes	No X							
Remarks:								
Heavy storms the previous day; depre				ted with	former chan	nel sc	ar; not	
hydraulically connected to any existing	g stream	cnan	inei					
VEGETATION - Use scientific names of pla	ints.							
700 cg ft	Absolute		nant Indica		inance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft) 1. Fraxinus pennsylvanica	<u>% Cover</u> 10	Speci No	ies? Statu FAC	INUITI	ber of Dominant Sp			
2. Celtis laevigata	35	Yes			Are OBL, FACW, of uding FAC-):	or FAC	4	_ (A)
3. Ulmus americana	50	Yes		— Total	Number of Domin	ant		
4.				l l	ies Across All Stra		4	(B)
	95	= Total	l Cover	Perce	ent of Dominant Sp	necies		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	00	V	E40		Are OBL, FACW,		100	(A/B)
Celtis laevigata Quercus stellata		Yes No		Prev	alence Index wor	ksheet:		
		110	1 700		Total % Cover of:		Multiply by:	
3 4		-		— OBL	species	x	1 =	
5					N species			
	95	= Total	l Cover		species			
Herb Stratum (Plot size: 450 sq ft			EAGU		J species			
Toxicodendron radicans Elymus virginicus	<u>5</u> 50	No Yes		• • -	species			
Viola missouriensis		No			mn Totals:	(A))	(B)
Parthenocissus quinquefolia	5	No			Prevalence Index	= B/A =		
5		-			ophytic Vegetation	n Indica	tors:	
6.					I - Rapid Test for H		_	
7.					2 - Dominance Tes			
8.					3 - Prevalence Inde			
9				_ ''	4 - Morphological A data in Remarks	aaptation or or or or	ns (Provide si separate shee	uppoπing ∍t)
10				_ □	Problematic Hydro			
Woody Vine Stratum (Plot size: 450 sq ft)	65	= Total	l Cover	¹ India	cators of hydric soi	l and wetl	and hydrology	v must
1					esent, unless distu			y mast
2.				Hydr	ophytic			
	0	= Total	l Cover	Vege	etation	. X	No	
% Bare Ground in Herb Stratum 35				Pres	ent? Yes	<u> </u>	NO	
Remarks:								

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature	S1	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	100					Clay	
					. '			
					·	-		
·								
					. '			
· -				-				
					·			_
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all Li	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (S	,		=	ace (S7) (LRR G)
	n Sulfide (A4)	- \		Mucky Mi			_	s Depressions (F16)
	d Layers (A5) (LRR ick (A9) (LRR F, G,			Gleyed Ma d Matrix (_ `	I outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa	,		o Mailix (Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	CC (A11)			urface (F7))		ow Dark Surface (TF12)
	fucky Mineral (S1)			Depressio	` '	,		plain in Remarks)
	Mucky Peat or Peat	(S2) (LRR G ,		•	essions (F	16)		hydrophytic vegetation and
	icky Peat or Peat (73 of LRR	,		drology must be present,
							unless dis	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:			<u> </u>					
Depth (inc	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:							<u> </u>	
No redox	features; Ti	nn clay, c	occasionally	floode	ed is na	ationall	ly listed hydr	ic soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one required;	check all that appl	y)			Secondary I	ndicators (minimum of two required)
☐ Surface	Water (A1)		■ Salt Crust	(B11)			☐ Surface	Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			y Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)			e Patterns (B10)
	arks (B1)		Dry-Seaso				Oxidize	d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F		, ,		(C3) (wher	re tilled)
	posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)		Ü	· · ·	n Burrows (C8)
1 1 1 1	at or Crust (B4)		Presence			4)		on Visible on Aerial Imagery (C9)
111-	osits (B5)		Thin Muck			,	_	rphic Position (D2)
	on Visible on Aerial	Imagery (B7)	Other (Exp		. ,			eutral Test (D5)
_	tained Leaves (B9)	0 , (,	` '		,			eave Hummocks (D7) (LRR F)
Field Obser	. ,							. , , , , ,
Surface Water		Yes No	Depth (in	ches):				
Water Table			Depth (in					
Saturation P			Depth (in				land Hydrology Pr	resent? Yes NoX
(includes cap		162 100	Deptii (iii	ulies)		_ *****	iana myanology m	esent: res No
	corded Data (strear	n gauge, moni	toring well, aerial	photos, pr	evious ins	spections),	, if available:	
Remarks:								









Project/Site: Lake Ralph Hall Supplemental JD	City/County: Ladonia/Fannin Sampling Date: 6/2/2							
Applicant/Owner: Upper Trinity Regional Water District					State: TX	Sampling	Point: WP306	3
Investigator(s): Jason Voight, Andrew Sample					nge:			
Landform (hillslope, terrace, etc.): Valley		Local r	relief (concave,	convex, none): Concave		Slope (%)	0-1%
Subregion (LRR): Southwest Prairies	Lat: _33.4	5272			Long:95.97639		Datum: NA	D83
Soil Map Unit Name: Tinn Clay, Occasionally flooded					NWI classification			
Are climatic / hydrologic conditions on the site typical for thi								
Are Vegetation, Soil, or Hydrology					"Normal Circumstances" p		Yes X N	0
Are Vegetation, SoilX_, or Hydrology	-				eeded, explain any answer			
SUMMARY OF FINDINGS – Attach site map								s, etc.
Hydrophytic Vegetation Present? Yes X N	lo		le the	Sampled	Δτος			
Hydric Soil Present? Wetland Hydrology Present? YesN	loX			a Wetlar		No	Χ	
Wetland Hydrology Present? Yes N	10 <u>X</u>							
Remarks:	!			-!-4I				
Heavy storms the previous day; depres				ciated	with former chan	nei sca	ar; not	
hydraulically connected to any existing	stream	cnan	nnei					
VEGETATION – Use scientific names of plan	nts.							
700 //	Absolute			ndicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft	% Cover				Number of Dominant Sp			
1					That Are OBL, FACW, of (excluding FAC-):	r FAC	5	(A)
2						· ·		()
3					Total Number of Domina Species Across All Strat		5	(B)
	^	= Total	I Cove	r	Percent of Dominant Sp	ocios		
Sapling/Shrub Stratum (Plot size: 700 sq ft)					That Are OBL, FACW, of		100	(A/B)
1. Acer negundo	35	Yes		FAC	Prevalence Index work	sheet:		
Fraxinus pennsylvanica Gleditsia triacanthos	- 35 10	Yes No		FAC FACU	Total % Cover of:		Multiply by:	
		INO		FACO	OBL species			
4					FACW species			
J	80	= Total	I Cove	r	FAC species	x 3	3 =	_
Herb Stratum (Plot size: 450 sq ft)					FACU species		ł = <u> </u>	_
1. Torilis arvensis	5	No		FAC	UPL species			
2. Elymus virginicus 3. Ambrosia trifida	<u>20</u> 40	Yes Yes		FAC	Column Totals:	(A)	-	(B)
Ambiosia unida Bignonia capreolata	5	No		FACU	Prevalence Index	= B/A =		
5. Amaranthus tuberculatus	30	Yes		FAC	Hydrophytic Vegetation	n Indicat	ors:	
6	_				1 - Rapid Test for H	ydrophyti	c Vegetation	
7					2 - Dominance Tes			
8.					3 - Prevalence Inde		4	
9					4 - Morphological A data in Remarks	daptations or on a s	s' (Provide sur eparate sheet)	porting
10					Problematic Hydrop			
Manda Vina Chatana (Diataina 450 sq ft	100	= Total	I Cove	r	¹ Indicators of hydric soil		•	ŕ
Woody Vine Stratum (Plot size: 450 sq ft) 1					be present, unless distu			iiiust
2					Hydrophytic			
ov Born Connection Hard Class	0	= Total	I Cove	r	Vegetation Present? Yes	, X	No	
% Bare Ground in Herb Stratum 0 Remarks:					163			
Tromano.								

Profile Desc	ription: (Describe	e to the depth	needed to docur	nent the i	indicator	or confirm	n the absence of i	ndicators.)
Depth	Matrix			x Feature	S1	. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/2	100					Clay	
					. '			
					· ——			_
				_				
-	-			-				
1- 0.0							2, 2,	
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all L	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3) n Sulfide (A4)			d Matrix (S	neral (F1)		=	ace (S7) (LRR G) s Depressions (F16)
	d Layers (A5) (LRR	E)		Gleyed Ma			_	l outside of MLRA 72 & 73)
	ick (A9) (LRR F, G			d Matrix (_ `	Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	,			urface (F7))		ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Exp	olain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G,	H) High Pla	ains Depre	essions (F	16)	³ Indicators of h	hydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(ML	RA 72 &	73 of LRR	R H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:								
No redox	c features; Ti	inn clay, o	occasionally	floode	ed is na	ationall	ly listed hydr	ic soil; naturally dark soil
HYDROLO								
Wetland Hy	drology Indicators	s:						
Primary India	cators (minimum of	one required;	check all that appl	y)			Secondary I	ndicators (minimum of two required)
☐ Surface	Water (A1)		☐ Salt Crust	(B11)			Surface	Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			y Vegetated Concave Surface (B8)
☐ Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainag	je Patterns (B10)
☐ Water M	arks (B1)		☐ Dry-Seaso	n Water 1	Γable (C2)		Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wher	e tilled)
	oosits (B3)		(where	not tilled)			☐ Crayfish	n Burrows (C8)
1 1 1 1	at or Crust (B4)		Presence			4)		on Visible on Aerial Imagery (C9)
111-	osits (B5)		Thin Muck	Surface ((C7)	•	Geomoi	rphic Position (D2)
	on Visible on Aerial	Imagery (B7)	Other (Exp		. ,			eutral Test (D5)
_	tained Leaves (B9)		` .		,			eave Hummocks (D7) (LRR F)
Field Obser	. ,							. , , , , ,
Surface Water		Yes N	o X Depth (in	ches):				
Water Table			o X Depth (in					
Saturation P			o X Depth (in				land Hydrology Pr	resent? Yes NoX
(includes cap		162 14	o Deptii (iii	ulies)		_ *****	iana myanology m	esent: res No
	corded Data (stream	m gauge, mon	itoring well, aerial	photos, pr	evious ins	spections),	, if available:	
Remarks:								









Project/Site: Lake Ralph Hall Supplemental JD				Fannin			
Applicant/Owner: Upper Trinity Regional Water District				State: TX	_ Samplin	g Point: WP30)7
Investigator(s): Jason Voight, Andrew Sample				ange:			
Landform (hillslope, terrace, etc.): Valley		Local r	elief (concave,	convex, none): Concave	э	Slope (%	o): <u>0-1%</u>
				_ Long: <u>-95.97666</u>			
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classif			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answ			
SUMMARY OF FINDINGS – Attach site ma							es, etc
Hydrophytic Vegetation Present? Yes X	No	T.	ls the Sample	d Araa			
Hydric Soil Present? Yes X	No		within a Wetla		≺ No		
Wetland Hydrology Present? Yes X	No		within a wetta	163			
Remarks:			_		_		
Heavy storms the previous day; depr				I with former cha	nnel sc	ar; not	
hydraulically connected to any existing	ng stream	chan	nel				
VEGETATION – Use scientific names of pl	ants.						
	Absolute	Domir	nant Indicator	Dominance Test wo	rksheet:		
Tree Stratum (Plot size: 700 sq ft)	·		es? Status	Number of Dominant			
Fraxinus pennsylvanica Celtis laevigata	<u>30</u> 15	Yes Yes		That Are OBL, FACW (excluding FAC-):	, or FAC	3	(A)
3. Ulmus americana	30	Yes			:		_ (**)
4.				Total Number of Dom Species Across All St		3	(B)
	75	= Total	Cover	Percent of Dominant			
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW		100	_ (A/B)
1. Celtis laevigata		No	FAC	Prevalence Index wo	rksheet:		
Fraxinus pennsylvanica Ulmus americana		No No	FAC FAC	Total % Cover of:		Multiply by:	
Juniperus virginiana	<u>5</u>	No	UPL	OBL species			
5.				FACW species	x	2 =	
- S	30	= Total	Cover	FAC species	x	3 =	
Herb Stratum (Plot size: 450 sq ft)				FACU species			
1. Toxicodendron radicans	3	No.	FACU	UPL species			
2. Bignonia capreolata		No		Column Totals:	(A)	(B)
3				Prevalence Inde	ex = B/A =		
4				Hydrophytic Vegetat	ion Indica	tors:	
5				1 - Rapid Test for		-	
7.				2 - Dominance Te			
8.				3 - Prevalence In			
9				4 - Morphological data in Remar	Adaptation ks or on a	ns' (Provide su separate shee	upporting t)
10				Problematic Hydr			
Woody Vine Stratum (Plot size: 450 sq ft)	5	= Total	Cover	¹ Indicators of hydric s	oil and weti	and hydrology	, must
1				be present, unless dis			illust
2.				Hydrophytic			-
	0	= Total	Cover	Vegetation	, x	No	
% Bare Ground in Herb Stratum 95				Present? Y	es^	No	
Remarks:							

Profile Desc	cription: (Describe	to the dept	h needed to docu	ment the i	indicator o	or confirm	m the absence of	indicators.)
Depth	Matrix			ox Feature		. 2		
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/1	95	10 YR 4/6	_ 5	C	M	Clay	
	_						· ——— —	_
							<u></u>	
	oncentration, D=De					d Sand G	rains. ² Location	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless other	erwise not	ed.)		Indicators for	Problematic Hydric Soils ³ :
Histosol	. ,		Sandy	Gleyed Ma	atrix (S4)			k (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			irie Redox (A16) (LRR F, G, H)
	istic (A3)			ed Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)	-		Mucky Mir			_	ns Depressions (F16)
	d Layers (A5) (LRR uck (A9) (LRR F, G,	,		Gleyed Ma ed Matrix (l				Houtside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	00 (7111)	_	ed Dark Su	, ,			low Dark Surface (TF12)
	/lucky Mineral (S1)			Depression	, ,			plain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G	, H) 🔲 High P	lains Depre	essions (F	16)	³ Indicators of h	nydrophytic vegetation and
5 cm Μι	ucky Peat or Peat (S	S3) (LRR F)	(M	LRA 72 & 7	73 of LRR	H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive	Layer (if present):							
Type:								V
Depth (in	ches):						Hydric Soil Pre	esent? Yes X No No
Remarks:								
Dadau fa		4. Time al				4!		duia aaile wateenallee danle aail
Redox re	atures preser	it; Tinn c	ay, occasion	ally floc	oaea is	nation	ally listed nyo	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicators							
_	cators (minimum of		check all that ann	alva)			Secondary	Indicators (minimum of two required)
	Water (A1)	one required	Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			nvertebrate	e (B13)		_	ly Vegetated Concave Surface (B8)
Saturation	, ,		_ `	Sulfide O	, ,			ge Patterns (B10)
	larks (B1)			on Water T				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe		na Roots		re tilled)
1 1 1	posits (B3)			not tilled)		ng rtoots	` ' 🗖 `	h Burrows (C8)
	at or Crust (B4)			of Reduce)		ion Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			k Surface (,		rphic Position (D2)
	on Visible on Aerial	Imagery (B7		plain in Re				eutral Test (D5)
	stained Leaves (B9)		, (,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,			leave Hummocks (D7) (LRR F)
Field Obser	. ,						<u> </u>	. , , , , ,
Surface Wat	er Present?	Yes N	lo X Depth (ii	nches):				
Water Table			lo X Depth (ii					
Saturation P			lo X Depth (ii			l l	land Hydrology P	resent? Yes X No No
(includes cap		1031	10 Depti (ii	icrics)		_ '''	iana myarology m	103 <u></u> 110 <u></u>
Describe Re	corded Data (strear	n gauge, moi	nitoring well, aerial	photos, pr	evious insp	pections),	, if available:	
Remarks:								









Project/Site: Lake Ralph Hall	ject/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							P338	
Investigator(s): Jason Voight, Andrew Sample		Section,	Township, Ra	nge:				
Landform (hillslope, terrace, etc.): Valley	lief (concave,	ve, convex, none): Concave Slope (%			(%): <u>0-1%</u>			
Subregion (LRR): Southwest Prairies	Lat: 33.4	45173		Long: <u>-95.9845</u>		Datum:	NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi				
Are climatic / hydrologic conditions on the site typical fo	r this time of ve							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No	
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site ma						,	ures, etc	
Hydrophytic Vegetation Present? Yes X	No		the Complet	1 Area				
Hydric Soil Present? Yes	No X		the Sampled		No	X		
Wetland Hydrology Present? Yes	No X	W	itiiiii a wetiai	iid: 165	140			
Remarks:								
Delineated during heavy rainfall, forr	ner chann	el scai	ſ					
VEGETATION – Use scientific names of p	lants.							
	Absolute	Domina	ant Indicator	Dominance Test work	ksheet:			
Tree Stratum (Plot size: 700 sq ft)			s? Status	Number of Dominant S				
1. Ulmus americana	20	Yes	FAC	That Are OBL, FACW,		4	(4)	
2. Celtis laevigata	40	Yes	FAC	(excluding FAC-):			(A)	
3. Fraxinus pennsylvanica	20	Yes	FAC	Total Number of Domin		4	(D)	
4				Species Across All Stra	ata:	<u> </u>	(B)	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	80	= Total C	Cover	Percent of Dominant S		100	(A/B)	
1. Celtis laevigata	15	No	FAC	That Are OBL, FACW,	OI FAC.		(A/D)	
2. Fraxinus pennsylvanica	5	No	FAC	Prevalence Index wo				
3.				Total % Cover of:				
4				OBL species				
5				FACW species				
450 sq ft	20	= Total C	Cover	FACILIAN AND ADDRESS				
Herb Stratum (Plot size: 450 sq ft 1. Viola missouriensis	10	No	FACW	FACU species		4 =		
2. Elymus virginica	20	Yes	FAC	Column Totals:				
3. Toxicodendron radicans	5	No	FACU	Oolulliii Totais.	(^		(D)	
4.				Prevalence Index				
5.				Hydrophytic Vegetati				
6.				1 - Rapid Test for		•	on	
7.				2 - Dominance Te				
8				3 - Prevalence Ind				
9				4 - Morphological data in Remark				
10				Problematic Hydro	phytic Ve	getation ¹ (E	xplain)	
Woody Vino Strotum (Dlot size, 450 sq ft	35	= Total C	Cover	¹ Indicators of hydric so		•		
Woody Vine Stratum (Plot size: 450 sq ft) 1. Toxicodendron radicans	5	No	FACU	be present, unless dist				
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic				
	10	= Total C		Vegetation	V			
% Bare Ground in Herb Stratum 65		· i Stai C		Present? Ye	es X	No	_	
Remarks:								

Profile Desc	ription: (Describ	e to the depth	needed to docu	ment the i	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature			- .	ъ.
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100					Clay	
				_				
					. ——			
		=						
	oncentration, D=D					d Sand Gr		on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all L	RRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	· ,			Gleyed Ma	, ,			ck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•		_	airie Redox (A16) (LRR F, G, H)
	stic (A3)			d Matrix (S	,			face (S7) (LRR G)
	en Sulfide (A4)	. =\		Mucky Mir			-	ns Depressions (F16)
	d Layers (A5) (LRF uck (A9) (LRR F, G	,		Gleyed Ma ed Matrix (l			_ `	H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	200 (7111)	_	ed Dark Su	` '			llow Dark Surface (TF12)
	lucky Mineral (S1)			Depression	. ,			plain in Remarks)
_	Mucky Peat or Pea		, H) 🔲 High Pl	ains Depre	essions (F	16)		hydrophytic vegetation and
5 cm Μι	icky Peat or Peat (S3) (LRR F)	(MI	RA 72 & 7	73 of LRR	H)	wetland h	ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pr	esent? Yes NoX
Remarks:								
N	T'			1		- H - P -	(and and and along the
ino read	x. Tinn cia	y, occasi	onally flood	ded is	nation	ally lis	stea nyaric	soil; naturally dark soil
HYDROLO	GY							
	drology Indicator	6.						
_	cators (minimum o		shock all that ann	lv.)			Cocondon	Indicators (minimum of two required)
	•	one requirea,		* *				Indicators (minimum of two required)
	Water (A1)		Salt Crust		- (D40)			e Soil Cracks (B6)
ı —	ater Table (A2)			vertebrate				ely Vegetated Concave Surface (B8)
Saturation Notes N	larks (B1)			Sulfide O				ge Patterns (B10)
	nt Deposits (B2)			on Water T		ing Roots		ed Rhizospheres on Living Roots (C3)
	posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)		ing Roots	• • — •	re tilled) h Burrows (C8)
	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
	oosits (B5)		_	Surface (•	†)		orphic Position (D2)
I 💳 🗀 .	on Visible on Aeria	ıl İmagery (R7)		plain in Re				eutral Test (D5)
	tained Leaves (B9		Unier (Ex	piaiii iii ixe	iliaiks)			Heave Hummocks (D7) (LRR F)
Field Obser	`)						icave Hummocks (B7) (ERRT)
Surface Wat		Vac N	o X Depth (ir	ches).				
			o X Depth (ir					
Water Table							and Hedralani B	resent? Yes No X
Saturation P (includes car		Yes N	o X Depth (ir	icnes):		_ weti	and Hydrology P	resent? Yes No
	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pr	eviou s ins	pections),	if available:	
Remarks:								





Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin Sampling Date: 6/1/2017							
Applicant/Owner: Upper Trinity Regional Water District				State: TX				
Investigator(s): Jason Voight, Andrew Sample		Section,	Township, Ra	nge:				
Landform (hillslope, terrace, etc.): Valley		Local rel	ief (concave,	convex, none): Concave		Slope (%)): <u>0-1%</u>	
Subregion (LRR): Southwest Prairies	Lat: 33.4	15203		Long: <u>-95.98456</u>		Datum: NA	AD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific				
Are climatic / hydrologic conditions on the site typical for t								
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"			No	
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe				
SUMMARY OF FINDINGS – Attach site map						•	es, etc.	
Hydrophytic Vegetation Present? Yes X	No	lo	the Sampled	LAron				
Hydric Soil Present? Yes	NoX		ithin a Wetlar		No	No X		
Wetland Hydrology Present? Yes	NoX		umi a wenai	10: 103				
Remarks:								
Delineated during heavy rainfall; former	er chann	el scar	•					
VEGETATION – Use scientific names of pla	nts							
VEGETATION 636 30161111116 Harries of pla	Absolute	Domina	nt Indicator	Dominance Test work	rshoot:			
Tree Stratum (Plot size: 700 sq ft)			Status	Number of Dominant S				
1. Morus rubra	25	Yes	FACU	That Are OBL, FACW,		2		
2. Fraxinus pennsylvanica	45	Yes	FAC	(excluding FAC-):		3	_ (A)	
3				Total Number of Domir		4		
4				Species Across All Stra	ata:	4	_ (B)	
Sapling/Shrub Stratum (Plot size: 700sq ft)	70	= Total C	Cover	Percent of Dominant S		75		
1. Celtis laevigata	10	No	FAC	That Are OBL, FACW,	or FAC:	75	_ (A/B)	
2. Fraxinus pennsylvanica	20	Yes	FAC	Prevalence Index wor	ksheet:			
3. Morus rubra	10	No	FACU	Total % Cover of:		Multiply by:		
4.				OBL species				
5.		-		FACW species				
450 (1	40	= Total C	Cover	FAC species		3 =	_	
Herb Stratum (Plot size: 450 sq ft)	10	No	FAC	FACU species		4 =	_	
Elymus virginica Toxicodendron radicans	10	No No	FACU	UPL species Column Totals:				
3. Ambrosia trifida	20	Yes	FAC	Column Totals:	(A)	(D)	
				Prevalence Index	a = B/A =			
4. 5.				Hydrophytic Vegetati	on Indica	tors:		
6.				1 - Rapid Test for	Hydrophyt	tic Vegetation		
7.				2 - Dominance Tes				
8.				3 - Prevalence Ind				
9.				4 - Morphological data in Remark	Adaptation	ns' (Provide su senarate sheet	pporting	
10		-		Problematic Hydro				
450 4	35	= Total C	Cover	<u> </u>			,	
Woody Vine Stratum (Plot size: 450 sq ft) 1. Toxicodendron radicans	5	No	FACU	¹ Indicators of hydric so be present, unless dist			must	
Toxicodendron radicans Parthenocissus quinquefolia	5	No	FACU					
2. 1 diamenoussus quinqueiona				Hydrophytic Vegetation				
% Bare Ground in Herb Stratum 65		= Total C	ovei		sX	No		
Remarks:				1				
Buttressed tree trunks								

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator (or confir	m the absence	of indicators.)
Depth	Matrix Redox Features							
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-12	10 YR 2/1	100					Clay	
12-18	10 YR 2/1	80	10 YR 5/2	20	С	М	Clay	depletions below 12 inches
								
				_				
								
	-							
	oncentration, D=Dep					d Sand G		cation: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all	_				_	for Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed M				Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S				Prairie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (,		_	Surface (S7) (LRR G)
	n Sulfide (A4)	- \			ineral (F1)			Plains Depressions (F16)
	d Layers (A5) (LRR lick (A9) (LRR F, G,	,		ed Matrix (latrix (F2)		_ `	red Vertic (F18)
	d Below Dark Surfac			Dark Surf	. ,			arent Material (TF2)
	ark Surface (A12)	0 (7111)	_		urface (F7)			Shallow Dark Surface (TF12)
	lucky Mineral (S1)			Depression				(Explain in Remarks)
	/lucky Peat or Peat ((S2) (LRR (essions (F	16)		of hydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(ML	RA 72 &	73 of LRR	H)	wetlan	d hydrology must be present,
							unless	disturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil	Present? Yes NoX
Remarks:								
Does not fit	any of the hydrid	soil indic	ators. Tinn Clay,	occasio	onally floo	ded, is	a nationally li	sted hydric soil. Naturally dark soils
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of c	ne required	d; check all that appl	ly)			Seconda	ary Indicators (minimum of two required)
☐ Surface	Water (A1)		Salt Crust	(B11)			☐ Surf	face Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			rsely Vegetated Concave Surface (B8)
☐ Saturation	on (A3)		Hydrogen	Sulfide C	dor (C1)		Drai	inage Patterns (B10)
☐ Water M	arks (B1)		☐ Dry-Seaso	on Water	Table (C2)		Oxio	dized Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized I	Rhizosphe	eres on Livi	ing Roots	(C3) (w	here tilled)
Drift Dep	oosits (B3)		(where	not tilled)		☐ Cra	yfish Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduc	ed Iron (C4	!)	☐ Sati	uration Visible on Aerial Imagery (C9)
-	osits (B5)		Thin Muck		•	•		omorphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B	7) Dther (Ex	plain in R	emarks)			C-Neutral Test (D5)
☐ Water-S	tained Leaves (B9)	0 , (,		,			st-Heave Hummocks (D7) (LRR F)
Field Obser	vations:							. , , , , ,
Surface Wate	er Present? Y	'es	No X Depth (in	ches):				
Water Table			No X Depth (in					
Saturation P			No X Depth (in				land Hydrolog	y Present? Yes No _X
(includes cap	oillary fringe)							,
Describe Re	corded Data (stream	gauge, mo	onitoring well, aerial	photos, p	reviou s ins	pections)	, if available:	
Remarks:								







Project/Site: Lake Ralph Hall		City/County	: Ladonia/F	annin	_ Sampling [Date: <u>6/1/20</u>	17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	_ Sampling F	Point: WP34	.3
Investigator(s): Jason Voight, Andrew Sample		Section, To	wnship, Ra	inge:			
Landform (hillslope, terrace, etc.): Valley		Local relief	(concave,	convex, none): Concave		_ Slope (%)): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	15285		Long: <u>-95.98395</u>		Datum: NA	4D83
Soil Map Unit Name: _Tinn Clay, Occasionally Flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for t	his time of ve						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		25 X 1	Nο
Are Vegetation, Soil _X, or Hydrology				eeded, explain any answe	•		
SUMMARY OF FINDINGS – Attach site map						•	as atc
Attach site ma	3 3110 111119	Jampini	g point i		<u>, importa</u>	- reature	
Hydrophytic Vegetation Present? Yes X		Is th	e Sampled	I Area			
Hydric Soil Present? Yes		with	in a Wetlar	nd? Yes	No	X	
Wetland Hydrology Present? Yes Remarks:	No^						
Delineated during heavy rainfall. Old to OHWM VEGETATION – Use scientific names of pla		o forme	r N. Sul	phur channel. Ch	nannel fu	ıll of gra	ss, no
	Absolute	Dominant	Indicator	Dominance Test worl	ksheet:		
Tree Stratum (Plot size: 700 sq ft)		Species?		Number of Dominant S			
Celtis laevigata Fraxinus pennsylvanica	<u>30</u> 40	Yes Yes	FAC FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	4	(A)
		103	TAO		_		_ (' ')
3				Total Number of Domir Species Across All Stra		4	(B)
4	70	= Total Co	/er				_ (-)
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total Co	vei	Percent of Dominant S That Are OBL, FACW,		100	(A/B)
1. Celtis laevigata	5	No	FAC				_
2. Fraxinus pennsylvanica	20	Yes	FAC	Prevalence Index wor Total % Cover of:		Multiply by:	
3. Ulmus americana	_ 1	No	FAC	OBL species			
4				FACW species			
5	35			FAC species			
Herb Stratum (Plot size: 450 sq ft	30	= Total Co	ver	FACU species			
1. Elymus virginica	60	Yes	FAC	UPL species			
2. Carex blanda	5	No	FAC	Column Totals:	(A)		(B)
3. Ambrosia trifida	15	No	FAC		D/A		
4				Prevalence Index Hydrophytic Vegetati			
5		-		1 - Rapid Test for			
6				2 - Dominance Te		vegetation	
7				3 - Prevalence Ind			
8			-	4 - Morphological		(Provide su	pporting
9				data in Remark	s or on a ser	oarate sheet	t)
10	80	T-1-1-0		Problematic Hydro	ophytic Veget	ation ¹ (Expl	ain)
Woody Vine Stratum (Plot size: 450 sq ft)		= Total Co	ver	¹ Indicators of hydric so	oil and wetlan	d hydrology	must
1. Smilax bona-nox	5	No	FACU	be present, unless dist			
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic			
% Bare Ground in Herb Stratum 20	10	= Total Co	ver	Vegetation Present? Ye	es X	No	
Remarks:							

Profile Desc	ription: (Describ	e to the depth	needed to docu	ment the i	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			x Feature			- .	ъ.
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/2	100					Clay	
					. ——			
	oncentration, D=De					d Sand Gr		on: PL=Pore Lining, M=Matrix.
	Indicators: (Appl	icable to all L					_	r Problematic Hydric Soils ³ :
Histosol	, ,			Gleyed Ma	, ,			ck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5 d Matrix (S	•		_	nirie Redox (A16) (LRR F, G, H)
Black Hi	en Sulfide (A4)			Mucky Mir	,			ace (S7) (LRR G) ns Depressions (F16)
	d Layers (A5) (LRF	R F)		Gleyed Ma			-	H outside of MLRA 72 & 73)
	ick (A9) (LRR F, G	,		ed Matrix (_ `	Vertic (F18)
	d Below Dark Surfa			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)			ed Dark Su	. ,			llow Dark Surface (TF12)
	lucky Mineral (S1)			Depressio	, ,			plain in Remarks)
	Mucky Peat or Pea	. , ,		ains Depre	,			hydrophytic vegetation and
5 cm ivit	icky Peat or Peat (53) (LRR F)	(IVII	RA 72 & 1	73 OT LKK	. П)		ydrology must be present, sturbed or problematic.
Restrictive I	Layer (if present):						unicas dis	starbed of problematic.
Type:	, (р,							
, , <u> </u>	ches):						Hydric Soil Pro	esent? Yes No_X
Remarks:	,							
No redo	x. Tinn clay	y, occasi	onally floor	ded is	nation	ally lis	sted hydric	soil; naturally dark soil
LIVERGLO	OV							
HYDROLO								
_	drology Indicator							
	cators (minimum of	one required;		• •				Indicators (minimum of two required)
	Water (A1)		Salt Crus					e Soil Cracks (B6)
1 –	ater Table (A2)			vertebrate				ely Vegetated Concave Surface (B8)
Saturation				Sulfide O				ge Patterns (B10)
	larks (B1)			on Water 7		: Dt-		ed Rhizospheres on Living Roots (C3)
111	nt Deposits (B2) posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)		ing Roots		re tilled) h Burrows (C8)
1 1 1	at or Crust (B4)			of Reduce		1)		tion Visible on Aerial Imagery (C9)
	oosits (B5)			Surface (+)	_	orphic Position (D2)
I 💳	on Visible on Aeria	ıl İmagery (B7)		plain in Re				eutral Test (D5)
	tained Leaves (B9			piaiii iii ike	iliaiks)			Heave Hummocks (D7) (LRR F)
Field Obser	`	/						icave Hammoone (27) (21tt 1)
Surface Wat		Yes N	o X Depth (ir	iches):				
Water Table			o X Depth (ir					
Saturation P			o X Depth (ir				and Hydrology P	resent? Yes No _X
(includes car	oillary fringe)							
Describe Re	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pr	eviou s ins	pections),	if available:	
Remarks:								
i .								





Project/Site: Lake Ralph Hall	City/County: Ladonia/Fannin Sampling Date: 6/1/2017						17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Samplin	ampling Point: WP347	
Investigator(s): Jason Voight, Andrew Sample		Section	, Township, R	lange:			
Landform (hillslope, terrace, etc.): Valley		Local re	elief (concave	, convex, none): Concave		Slope (%): 0-1%	
Subregion (LRR): Southwest Prairies	Lat: 33.4	15366		Long:95.98271		Datum: NA	AD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No
Are Vegetation, SoilX, or Hydrology				needed, explain any answe	ers in Rem	narks.)	
SUMMARY OF FINDINGS – Attach site ma							es, etc.
Hydrophytic Vegetation Present? Yes X	No		lo the Comple	ad Area			
Hydric Soil Present? Yes	No X		ls the Sample within a Wetla		No	Χ	
Wetland Hydrology Present? Yes	No X		within a weth	and: 165			
Remarks:		_			_		
Delineated during heavy rainfall. Old	tributary t	o forr	mer N. Su	ılphur channel. Ch	nannel	full of gra	ss, no
ОНWМ							
VEGETATION – Use scientific names of pla	ants.						
700 cg ft	Absolute		nant Indicator	Dominance Test worl	sheet:		
Tree Stratum (Plot size: 700 sq ft 1. Celtis laevigata	<u>% Cover</u> 15	Specie No	es? Status FAC	- Number of Dominant S			
2. Fraxinus pennsylvanica	20	Yes		_ That Are OBL, FACW, (excluding FAC-):	or FAC	3	(A)
3. Ulmus americana	45	Yes		- _ Total Number of Domir	nant		
4.				Species Across All Stra		4	_ (B)
	80	= Total	Cover	Percent of Dominant S	pecies		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	_	NI-	FAC	That Are OBL, FACW,		75	_ (A/B)
1. Celtis laevigata	<u>5</u> 	No No		Prevalence Index wo	ksheet:		
Fraxinus pennsylvanica Ulmus americana	25	Yes		Total % Cover of:		Multiply by:	
4. Ulmus crassifolia		No		OBL species	x	1 =	
5.	<u> </u>			FACW species	x	2 =	
	45	= Total	Cover	FAC species	x	3 =	
Herb Stratum (Plot size: 450 sq ft)	4.5	N 1.	E4.0	FACU species		4 =	
Ampelopsis arborea Chasmanthium latifolium	<u>15</u> 70	No Yes	FAC FACU	UPL species			
			FACU	_ Column Totals:	(A	.)	(B)
3			-	Prevalence Index	a = B/A =		
4. 5.				Hydrophytic Vegetati	on Indica	tors:	
6.				1 - Rapid Test for		J	
7.				2 - Dominance Te			
8.				3 - Prevalence Ind			
9				- 4 - Morphological data in Remark			
10				Problematic Hydro			
Washing Charles (Blat size, 450 sq ft	85	= Total	Cover	¹ Indicators of hydric so			,
Woody Vine Stratum (Plot size: 450 sq ft) 1. Smilax bona-nox	5	No	FACU	be present, unless dist			must
2. Parthenocissus quinquefolia	5	No		- Hydrophytic			
	10	= Total	Cover	Vegetation	V		
% Bare Ground in Herb Stratum 15			-	Present? Ye	s^_	No	
Remarks:							

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	indicator	or confirn	n the absence of i	ndicators.)
Depth	Matrix			x Feature				_
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/2	100					Clay	
					. '			
					· ——			_
				_				
	-				·			
1							. 2.	
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
	Indicators: (Appli	cable to all Li						Problematic Hydric Soils ³ :
Histosol				Gleyed Ma				((A9) (LRR I, J)
	oipedon (A2)			Redox (S5				irie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3) n Sulfide (A4)			d Matrix (S Mucky Mir	,		_	ace (S7) (LRR G) s Depressions (F16)
	d Layers (A5) (LRR	E)		Gleyed Ma				I outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,	,		d Matrix (_ `	/ertic (F18)
	d Below Dark Surfa			Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	,	_		urface (F7))	_	ow Dark Surface (TF12)
Sandy M	lucky Mineral (S1)		Redox I	Depressio	ns (F8)		Other (Exp	plain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G,	H) High Pla	ains Depre	essions (F	16)	³ Indicators of h	ydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	83) (LRR F)	(ML	RA 72 & 1	73 of LRR	H)	wetland hy	drology must be present,
							unless dist	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (ind	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:								
l		•						
No red	lox. Linn (Clay, o	ccasiona	lly flo	odec	l, is a	ı natıonall	y listed hydric soil.
LIVERGLO	O.V.							<u> </u>
HYDROLO								
Wetland Hyd	drology Indicators	:						
	cators (minimum of	one required;	check all that appl	y)			Secondary I	ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surface	Soil Cracks (B6)
<u> </u> High Wa	iter Table (A2)		Aquatic In	vertebrate	es (B13)		Sparsel	y Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		☐ Drainag	e Patterns (B10)
Water M	arks (B1)		Dry-Seaso	n Water 7	Γable (C2)		U Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		U Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (wher	re tilled)
☐ Drift Dep	oosits (B3)		(where	not tilled)			Crayfish	Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	4)	Saturati	on Visible on Aerial Imagery (C9)
☐ Iron Dep	osits (B5)		Thin Muck	Surface ((C7)		Geomoi	rphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B7)	Other (Exp	olain in Re	emarks)		☐ FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)
Field Observ	vations:							
Surface Wate	er Present?	Yes No	o X Depth (in	ches):				
Water Table			Depth (in					
Saturation P			Depth (in				land Hydrology Pr	resent? Yes No X
(includes cap	oillary fringe)							
Describe Red	corded Data (strear	n gauge, mon	itoring well, aerial	photos, pr	eviou s ins	pections),	if available:	
Remarks:								







Project/Site: Lake Ralph Hall		City/Coun	ity: Ladonia/F	annin	Sampling	Date: 6/1/2	017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	Point: WP3	349
Investigator(s): Jason Voight, Andrew Sample		Section, 7	Гownship, Ra	nge:			
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave		Slope (%	%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	1538		Long: <u>-95.98113</u>		Datum: N	IAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							res, etc
Hydrophytic Vegetation Present? Yes X	No	la	the Complet	I Avon			
Hydric Soil Present? Yes	No X		the Sampled thin a Wetlar		No_	Χ	
Wetland Hydrology Present? Yes X	No	WI	uiiii a vvetiai	id: 165			
Remarks:							
Delineated during heavy rainfall. Forn	ner N. Su	lphur c	channel.				
VEGETATION – Use scientific names of pla	ants.						
	Absolute	Domina	nt Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft)			? Status	Number of Dominant S			
1. Celtis laevigata	40	Yes	FAC	That Are OBL, FACW,		5	(4)
2. Fraxinus pennsylvanica	30	Yes	FAC	(excluding FAC-):			(A)
3. Ulmus americana	20	Yes	FAC	Total Number of Domir		6	(D)
4				Species Across All Stra	ıta:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	90	= Total C	over	Percent of Dominant S That Are OBL, FACW,		83	(A/B)
1. Celtis laevigata	20	Yes	FAC	That Ale Obl., FACW,	UI FAC.		(A/b)
2.				Prevalence Index wor			
3.				Total % Cover of:		Multiply by:	
4				OBL species			
5				FACW species			
450 sq ft	20	= Total C	over	FACULARISIS			
Herb Stratum (Plot size: 450 sq ft) 1. Viola missouriensis	5	No	FACW	FACU species		1 =	
2. Chasmanthium latifolium	30	Yes	FACU	Column Totals:			
3. Elymus virginicus	15	Yes	FAC	Column Foldio.	(//)		(B)
4.				Prevalence Index			
5.				Hydrophytic Vegetati			
6.				1 - Rapid Test for		•	
7.				2 - Dominance Tes			
8				3 - Prevalence Ind 4 - Morphological			
9				data in Remark			
10				Problematic Hydro	phytic Veg	jetation¹ (Exp	olain)
Woody Vine Stratum (Plot size: 450 sq ft)	50	= Total C	over	¹ Indicators of hydric so	il and weth	and hydrolog	v muet
woody vine Stratum (Plot size: 400 34 ft)	5	No	FACU	be present, unless dist			y must
2. Parthenocissus quinquefolia	5	No	FACU	Hydrophytic			
	10	= Total C	over	Vegetation	~		
% Bare Ground in Herb Stratum 50				Present? Ye	s	No	-
Remarks:							

Profile Desc	ription: (Describe	to the depth	needed to docur	nent the i	indicator	or confirn	n the absence	of indicators.)
Depth	Matrix			x Feature				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-8	10 YR 3/2	100					Clay	
8-18	10 YR 5/2	80					Clay	20 % Mottles of 10 YR 3/2
	-			-				
					·			
	-				·			
1Tuno: C. C.	noontrotion D Do	olotion DM D	advaged Matrix Co	Course	d or Cooto		roino ² l o	notion, DL Doro Lining M Motric
	oncentration, D=Deplicators: (Applicators)					a Sana G		cation: PL=Pore Lining, M=Matrix. for Problematic Hydric Soils ³ :
Histosol		cable to all Li		Gleyed Ma			_	Muck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5	. ,			Prairie Redox (A16) (LRR F, G, H)
Black Hi				d Matrix (S				Surface (S7) (LRR G)
	n Sulfide (A4)			Mucky Mir	,			Plains Depressions (F16)
	Layers (A5) (LRR	F)		Gleyed Ma			_	RR H outside of MLRA 72 & 73)
	ıck (A9) (LRR F, G ,	•		d Matrix (. ,			red Vertic (F18)
Depleted	d Below Dark Surface	ce (A11)	Redox	Dark Surfa	ace (F6)		Red P	arent Material (TF2)
Thick Da	ark Surface (A12)		Deplete	d Dark Su	ırface (F7)			Shallow Dark Surface (TF12)
	lucky Mineral (S1)			Depressio	, ,			(Explain in Remarks)
	Mucky Peat or Peat				essions (F	,		of hydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	33) (LRR F)	(ML	RA 72 & 1	73 of LRR	H)		d hydrology must be present,
Dootrietive I	_ayer (if present):						uniess	disturbed or problematic.
Type:			_					Present? Yes No _X
	ches):						Hydric Soil	Present? Yes No _^_
Remarks:								
Doos not motol	h any hydria agil india	otoro Tipo Clay	, accessionally floods	ad io o noti	onally liste	d budria aail	L noturally dark a	oil; Earthworms and grubs present in soil core.
Does not mater	rany nyune son mule	ators. Tillir Olay	, occasionally noods	ou, is a riali	orially listed	i riyane son	. Haturally dark s	on, Lattiworms and grubs present in son core.
HYDROLO	GY							
	drology Indicators							
_			ahaali all that anni				Casanda	and Indicators (minimum of two required)
	cators (minimum of	one required; o						ary Indicators (minimum of two required)
	Water (A1)		Salt Crust		- (D40)			face Soil Cracks (B6)
	iter Table (A2)		Aquatic In		, ,			rsely Vegetated Concave Surface (B8)
Saturation Water M			Hydrogen					inage Patterns (B10)
	arks (B1)		Dry-Seaso		, ,	D (-		dized Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F			ing Roots	` ′ 🗂 `	/here tilled)
	posits (B3)			not tilled)		1)		yfish Burrows (C8)
-	at or Crust (B4)		Presence		•	+)		uration Visible on Aerial Imagery (C9)
	oosits (B5)	I (DZ)	Thin Muck		. ,			omorphic Position (D2)
_	on Visible on Aerial	Imagery (B7)	U Other (Exp	olain in Re	emarks)			C-Neutral Test (D5)
	tained Leaves (B9)						<u></u> Fros	st-Heave Hummocks (D7) (LRR F)
Field Observ		/ N-	X Destitution	-1>				
Surface Wate			Depth (in					
Water Table			Depth (in					Y
Saturation Pr		Yes No	X Depth (in	ches):		_ Wetl	and Hydrolog	y Present? Yes X No
(includes cap Describe Red	corded Data (strean	n gauge, moni	toring well, aerial	photos, pr	eviou s ins	pections).	if available:	
	(3 3.7 2.0	,	, [= .		/,		
Remarks:								
r comand.								







Project/Site: Lake Ralph Hall		City/Cou	nty: Ladonia/F	annin	Samplin	g Date: 6/1/2	2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Samplin	g Point: WP:	350
Investigator(s): Jason Voight, Andrew Sample		Section,	Township, Ra	inge:			
Landform (hillslope, terrace, etc.): Valley		Local re	elief (concave,	convex, none): Concave		Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	45273		_ Long: <u>-95.98159</u>		Datum: _	NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for	this time of ve						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"			No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							ıres, etc.
	No			· · · · · · · · · · · · · · · · · · ·	· ·		<u> </u>
	No X		the Sampled		N	X	
	No	l w	rithin a Wetla	na? Yes	No		
Remarks:		,					
Delineated during heavy rainfall.							
VEGETATION – Use scientific names of pl	ante						
VEGETATION OSC SCIENCING Harnes of pr	Absolute	Domin	ant Indicator	Dominance Test wor	kshoot:		
Tree Stratum (Plot size: 700 sq ft)			s? Status	Number of Dominant S			
1. Celtis laevigata	5	No	FAC	That Are OBL, FACW,		5	
2. Fraxinus pennsylvanica	10	No	FAC	(excluding FAC-):			(A)
3. Ulmus americana	10	No	FAC	Total Number of Domi		6	(5)
4. Ulmus crassifolia	35	Yes	FAC	Species Across All Str	ata:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	60	= Total (Cover	Percent of Dominant S		83	(4 (5)
1. Celtis laevigata	20	Yes	FAC	That Are OBL, FACW,	or FAC:		(A/B)
2. Fraxinus pennsylvanica	15	Yes	FAC	Prevalence Index wo	rksheet:		
3. Symphoricarpos orbiculatus	15	Yes	FACU	Total % Cover of:		Multiply by	<u>:</u>
4				OBL species			
5				FACW species		•	
450 og #	50	= Total (Cover	FAC species			
Herb Stratum (Plot size: 450 sq ft 1. Amaranthus tuberculatus	25	Yes	FAC	FACU species		4 =	
Torilis arvensis		No	UPL	UPL species Column Totals:			
3. Elymus virginicus	15	Yes	FAC	Column Totals.	(^	.)	(D)
4 Ambrosia trifida	5	No	FAC	Prevalence Index	< = B/A =		
5				Hydrophytic Vegetati			
6.				1 - Rapid Test for		•	า
7.				2 - Dominance Te			
8.				3 - Prevalence Inc			
9				4 - Morphological data in Remark			
10				Problematic Hydro		•	,
450 og #	50	= Total (Cover	I		,	. ,
Woody Vine Stratum (Plot size: 450 sq ft)				¹ Indicators of hydric so be present, unless dist			gy must
1					<u>.</u>		
2	0	- Total (Cover	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 50		- Total (OUVEI	Present? Ye	es <u>X</u>	No	_
Remarks:				•			
1							

Profile Desc	cription: (Describ	e to the depth	n needed to docu	ment the i	indicator	or confirm	the absence of	indicators.)
Depth	Matrix			ox Feature			_	
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1						Clay	
	oncentration, D=De	•				d Sand Gr	ains. ² Locati	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appl	icable to all L	RRs, unless other	rwise not	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	(A1)		Sandy	Gleyed Ma	atrix (S4)		1 cm Muc	ck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•			airie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			ace (S7) (LRR G)
	en Sulfide (A4)			Mucky Mir			_	ns Depressions (F16)
	d Layers (A5) (LRF	,		Gleyed Ma			_ `	H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G d Below Dark Surfa			ed Matrix (I	,			Vertic (F18)
	d Below Dark Suna ark Surface (A12)	ace (ATT)	_	Dark Surfa ed Dark Su	, ,			nt Material (TF2) llow Dark Surface (TF12)
	Mucky Mineral (S1)			Depression	, ,			plain in Remarks)
	Mucky Peat or Pea			ains Depre	` ,	16)	 ·	hydrophytic vegetation and
	ucky Peat or Peat (. , .		RA 72 & 7	•	,		ydrology must be present,
		, , ,	`			,		sturbed or problematic.
Restrictive I	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pr	esent? Yes No _X
Remarks:								
No redo	x. Tinn Clay	/, occasio	onally flood	ed, is a	a natio	nally li	sted hydric	soil; naturally dark soil
HYDROLO	CV							
_	drology Indicator							
	cators (minimum of	one required;						Indicators (minimum of two required)
	Water (A1)		Salt Crus					e Soil Cracks (B6)
1 🧮 🕆	ater Table (A2)			vertebrate	, ,			ely Vegetated Concave Surface (B8)
Saturation				Sulfide O				ge Patterns (B10)
	larks (B1)			on Water T				ed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		· · · · · · · · · · · · · · · · · · ·			ing Roots (ere tilled)
1 1 1	posits (B3)			not tilled)				sh Burrows (C8)
"	at or Crust (B4)			of Reduce		l)	_	tion Visible on Aerial Imagery (C9)
I 🚍 💮 .	posits (B5)			k Surface (orphic Position (D2)
_	on Visible on Aeria		Other (Ex	plain in Re	emarks)			eutral Test (D5)
	tained Leaves (B9)					Frost-F	Heave Hummocks (D7) (LRR F)
Field Obser			Χ					
Surface Wat			o X Depth (ir					
Water Table			o X Depth (ir					Y
Saturation P		Yes N	o X Depth (ir	nches):		_ Wetla	and Hydrology P	Present? Yes X No
(includes cap Describe Re	olliary fringe) corded Data (strea	m gauge, mor	nitoring well. aerial	photos. pr	eviou s ins	pections).	if available:	
	2 2 2 2 3 3 (0.100)	J J - , OI	J 2, ac.iai	,, pi	2220	, , ,		
Remarks:								
. tomano.								









Project/Site: Lake Ralph Hall		City/Count	ty: Ladonia/F	annin	Sampling	Date: 6/1/20)17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	Point: WP35	51
Investigator(s): Jason Voight, Andrew Sample		Section, T	ownship, Ra	inge:			
Landform (hillslope, terrace, etc.): Valley		Local relie	ef (concave,	convex, none): Concave		Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	15274		_ Long: <u>-95.97993</u>		Datum: N	AD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" p		Yes X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							es, etc.
Hydrophytic Vegetation Present? Yes X	No	lo 4	uh a Camumla a				
Hydric Soil Present? Yes X	No		the Sampled thin a Wetlan		No		
Wetland Hydrology Present? Yes X	No	Wit	.iiii a wetiai	103			
Remarks:							
Former North Sulphur channel acting	as an act	tive cha	annel				
VEGETATION – Use scientific names of pla	ants.						
	Absolute	Dominar	nt Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft)			? Status	Number of Dominant S			
1. Fraxinus pennsylvanica	15	No	FAC	That Are OBL, FACW,		1	(4)
2. Acer negundo	75	Yes	FAC	(excluding FAC-):			_ (A)
3		-		Total Number of Domin		1	(B)
4	90			Species Across All Stra	ııa.		_ (D)
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total Co	over	Percent of Dominant Sp That Are OBL, FACW,		100	(A/B)
1. Acer negundo	15	No	FAC				_ (//////
2. Ulmus americana	5	No	FAC	Prevalence Index wor		8.4 Jet 1. J	
3				Total % Cover of:			
4		-		OBL species			
5	20			FAC species			
Herb Stratum (Plot size: 450 sq ft)	20	= Total Co	over	FACU species		1 =	
1. Carex blanda	2	No	FAC	UPL species			
2. Elymus virginica	5	No	FAC	Column Totals:			
3. Toxicodendron radicans	2	No	FACU	Duamala da a la dam	. D/A		
4				Prevalence Index Hydrophytic Vegetation			
5				1 - Rapid Test for H			
6				2 - Dominance Tes		-	
7				3 - Prevalence Inde	ex is ≤3.0 ¹		
8				4 - Morphological A			
9 10				data in Remarks		•	•
10.		= Total Co	over	Problematic Hydro	phytic Veg	jetation' (Exp	lain)
Woody Vine Stratum (Plot size: 450 sq ft) 1.			5 V C1	¹ Indicators of hydric soi be present, unless distu			must
2.				Hydrophytic			
			over	Vegetation	Y		
% Bare Ground in Herb Stratum 91				Present? Ye	s^_	No	
Remarks:							

Profile Desc	cription: (Describe	e to the dep	th needed to docu	ment the	indicator	or confir	m the absence	of indicators.)				
Depth	Matrix			ox Feature								
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks				
0-8	10 YR 3/1	100					- <u></u>					
8-18	10 YR 4/2	95	10 YR 4/6	5	C	M	Clay	Redox past 8 inches				
						-						
	_					-	· ——					
			=Reduced Matrix, C			ed Sand G		cation: PL=Pore Lining, M=Matrix.				
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless other	rwise no	ted.)		_	for Problematic Hydric Soils ³ :				
Histosol	. ,			Gleyed M	, ,			Muck (A9) (LRR I, J)				
	pipedon (A2)			Redox (S	•			Prairie Redox (A16) (LRR F, G, H)				
Black Histic (A3) Hydrogen Sulfide (A4) Stripped Matrix (S6) Loamy Mucky Mineral (F1)								Surface (S7) (LRR G) Plains Depressions (F16)				
Stratified Layers (A5) (LRR F) Loamy Mucky Mineral (F1) Loamy Mucky Mineral (F1) Loamy Gleyed Matrix (F2)							_	RR H outside of MLRA 72 & 73)				
Stratified Layers (A5) (LRR F) 1 cm Muck (A9) (LRR F, G, H) Depleted Matrix (F2) Depleted Matrix (F3)								eed Vertic (F18)				
	d Below Dark Surfa			Dark Surf	. ,			arent Material (TF2)				
	ark Surface (A12)		Deplete	ed Dark S	urface (F7)		Very S	Shallow Dark Surface (TF12)				
	Mucky Mineral (S1)			Depression	. ,			(Explain in Remarks)				
	Mucky Peat or Peat	` ' '	· · · —		essions (F	,		of hydrophytic vegetation and				
<u> </u> 5 cm Mu	ucky Peat or Peat (S3) (LRR F)	(ML	-RA 72 &	73 of LRR	(H)	wetland hydrology must be present, unless disturbed or problematic.					
Postrictivo	Layer (if present):						uniess	alsturbed or problematic.				
Type:	Layer (ii present).											
, , <u> </u>	ches):						Hydric Soil	Present? Yes X No No				
Remarks:	CHE3).						Trydric 3011	Tresent: res No				
Remarks.												
Redox fe	atures presei	nt: Tinn o	clay, occasion	ally flo	oded is	nation	ally listed l	hydric soil; naturally dark soil				
HYDROLO	GY											
Wetland Hy	drology Indicators	s:										
Primary India	cators (minimum of	one require	d; check all that app	ly)			Seconda	ary Indicators (minimum of two required)				
Surface	Water (A1)		Salt Crust	t (B11)			☐ Suri	face Soil Cracks (B6)				
High Wa	ater Table (A2)		Aquatic Ir	vertebrate	es (B13)		✓ Spa	rsely Vegetated Concave Surface (B8)				
Saturation	on (A3)		Hydrogen	Sulfide C	dor (C1)		Dra	inage Patterns (B10)				
Water M	larks (B1)		Dry-Seas	on Water	Table (C2)		Oxid	dized Rhizospheres on Living Roots (C3)				
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	eres on Liv	ing Roots	(C3) (w	vhere tilled)				
Drift De	posits (B3)		(where	not tilled)		Cra	yfish Burrows (C8)				
Algal Ma	at or Crust (B4)		Presence	of Reduc	ed Iron (C4	4)	Sati	uration Visible on Aerial Imagery (C9)				
│	oosits (B5)		Thin Mucl	k Surface	(C7)		☐ Geo	omorphic Position (D2)				
Inundati	on Visible on Aeria	I Imagery (B	7) <u> </u>	plain in R	emarks)		☐ FAC	C-Neutral Test (D5)				
Water-S	tained Leaves (B9)						<u></u> Fros	st-Heave Hummocks (D7) (LRR F)				
Field Obser												
Surface Wat	er Present?	Yes	No X Depth (ir	nches):		_						
Water Table	Present?	Yes	No X Depth (ir	nches):								
Saturation P		Yes	No X Depth (ir	nches):		Wet	land Hydrolog	y Present? Yes X No				
(includes cap		m gallao m	onitoring well, aerial	photos n	rovious ins	noctions)	if available:					
Describe Re	corucu Daia (Silea	ıı yauye, III	ornioning well, aeilai	ριισισο, β	i eviou s II IS	heerious)	, 11 avallable.					
Remarks:												
iveillatiks.												





Project/Site: Lake Ralph Hall Supplemental JD		City/Cou	ınty: Ladonia/	Fannin	_ Samplin	g Date: 5/31/20	017	
Applicant/Owner: Upper Trinity Regional Water District	rict State: TX Sampling Point: WP 404							
Investigator(s): Jason Voight, Andrew Sample		Section,	, Township, Ra	ange:				
Landform (hillslope, terrace, etc.): Valley		Local re	elief (concave,	convex, none): Concav	е	Slope (%)	: <u>0-1%</u>	
	Lat: 33.4	16224		Long: <u>-95.91757</u>		Datum: NA	D83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classi	fication: PF	O1A		
Are climatic / hydrologic conditions on the site typical for	this time of year	ar? Yes	. X No_	(If no, explain in	Remarks.)			
Are Vegetation, Soil, or Hydrology	_significantly	disturbe	d? Are	"Normal Circumstances	' present?	Yes X N	10	
Are Vegetation, Soil \underline{X} , or Hydrology	_ naturally pro	blematio	c? (If n	eeded, explain any ansv	vers in Rem	arks.)		
SUMMARY OF FINDINGS - Attach site ma	p showing	samp	ling point	locations, transec	ts, impor	tant feature	es, etc.	
Hydrophytic Vegetation Present? Yes	No X							
Hydric Soil Present? Yes			s the Sample			V		
Wetland Hydrology Present? Yes X		V	vithin a Wetla	ind? Yes	No	^		
Remarks:		ı						
VEGETATION – Use scientific names of pla	ants							
	Absolute	Domin	ant Indicator	Dominance Test wo	rksheet:			
Tree Stratum (Plot size: 700 sq ft)			es? Status	Number of Dominant				
1. Fraxinus pennsylvanica	95	Yes	FAC	That Are OBL, FACW		1	(4)	
2. Maclura pomifera	2	No	FACU	(excluding FAC-):		1	(A)	
3. Celtis laevigata	2	No	FAC	Total Number of Dom		2	(D)	
4				Species Across All St	rata:		_ (B)	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	99	= Total	Cover	Percent of Dominant That Are OBL, FACW		50%	(A/B)	
1. Fraxinus pennsylvanica	5	No	FAC	That Are OBL, FACW	, or FAC.		_ (A/D)	
2. Celtis laevigata	5	No	FAC	Prevalence Index we				
3.				Total % Cover of		Multiply by:		
4						1 = 0	_	
5					7 x			
450 sq ft	10	= Total	Cover					
Herb Stratum (Plot size: 450 sq ft) Lolium multiflorum	50	Yes	s UPL	FACU species 2 UPL species 50	^	$5 = \frac{250}{}$		
1. <u>Conditi mallinoram</u> 2				Column Totals: 159			— (B)	
3.							(2)	
4.				Prevalence Inde				
5				Hydrophytic Vegeta				
6				1 - Rapid Test fo		•		
7				2 - Dominance T				
8				3 - Prevalence In 4 - Morphologica			onortina	
9						separate sheet		
10				Problematic Hyd	rophytic Ve	getation ¹ (Expla	ain)	
Woody Vine Stratum (Plot size: 450 sq ft)	50	= Total	Cover	¹ Indicators of hydric s	oil and wet	and hydrology	must	
1				be present, unless dis			muot	
2.				Hydrophytic				
	0	= Total	Cover	Vegetation	,	Y		
% Bare Ground in Herb Stratum 50				Present?	es	No X		
Remarks:								

Profile Desc	ription: (Describe	to the depth	needed to docu	ment the i	ndicator	or confirn	n the absence of	indicators.)	
Depth	Matrix			ox Feature:	4				
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks	
0-18	10 YR 3/1	90					Clay		
l ———									
¹Type: C=Co	oncentration, D=De	pletion, RM=F	Reduced Matrix, C	S=Covered	d or Coate	d Sand G	rains. ² Location	on: PL=Pore Lining, M=Ma	atrix.
Hydric Soil	Indicators: (Appli	cable to all L	RRs, unless other	rwise note	ed.)			Problematic Hydric Soils	_
Histosol	(A1)		Sandy	Gleyed Ma	trix (S4)		1 cm Muc	k (A9) (LRR I, J)	
Histic Ep	oipedon (A2)		Sandy	Redox (S5)		Coast Pra	irie Redox (A16) (LRR F, C	3, H)
	stic (A3)			d Matrix (S	,			ace (S7) (LRR G)	
	en Sulfide (A4)			Mucky Mir			_	s Depressions (F16)	
	d Layers (A5) (LRR	,		Gleyed Ma				l outside of MLRA 72 & 7	(3)
	uck (A9) (LRR F, G			ed Matrix (I	,			Vertic (F18)	
	d Below Dark Surfa ark Surface (A12)	ce (ATT)		Dark Surfa ed Dark Su	. ,		_	nt Material (TF2) low Dark Surface (TF12)	
	Mucky Mineral (S1)			Depression	, ,			plain in Remarks)	
_	Mucky Peat or Peat	(S2) (LRR G,		lains Depre	. ,	16)		nydrophytic vegetation and	
5 cm Μι	ıcky Peat or Peat (S3) (LRR F)		_RA 72 & 7	•	,		drology must be present,	
							unless dis	turbed or problematic.	
Restrictive I	Layer (if present):								
Type:			<u> </u>						
Depth (in	ches):						Hydric Soil Pre	esent? Yes No	o <u>X</u>
Remarks:									
No redox	k features; Ti	nn clay, c	occasionally	floode	d is na	tionally	/ listed hydri	c soil; naturally da	ark soils
HYDROLO	CV								
_	drology Indicators								,
	cators (minimum of	one required;						Indicators (minimum of two	required)
	Water (A1)		Salt Crus					e Soil Cracks (B6)	
	ater Table (A2)			vertebrate	, ,			y Vegetated Concave Surf	ace (B8)
Saturation			_ :	Sulfide O	, ,		`	ge Patterns (B10)	D ((00)
I = Water IV	larks (B1)			on Water T	, ,	D (-		d Rhizospheres on Living I	Roots (C3)
111	nt Deposits (B2)		·	Rhizosphe		ing Roots		re tilled)	
1 1 1	posits (B3)			not tilled)		1)		n Burrows (C8) ion Visible on Aerial Image	m, (CO)
	at or Crust (B4) posits (B5)			of Reduce k Surface (+)	_	rphic Position (D2)	Ty (C9)
I 💳	on Visible on Aerial	Imagani (P7)		plain in Re				eutral Test (D5)	
	tained Leaves (B9)	illiagely (b1)		piairi iri Ke	illaiks)			eave Hummocks (D7) (LR	DE/
Field Obser							<u> </u>	eave Hullillocks (D1) (Liv	
Surface Wat		Voc. N	o X Donth (in	oboo):					
			Depth (in						
Water Table			Depth (in					10 V X	
Saturation P (includes car		Yes N	Depth (ir	nches):		_ Weti	and Hydrology P	resent? Yes X N	ю
Describe Re	corded Data (strear	n gauge, mon	itoring well, aerial	photos, pr	evious ins	pections),	if available:		
	-			-		•			
Remarks:									
outside e	edge of forme	r channe	Lscar						
Juisiue e	age of forme	, onanio	1 3001						





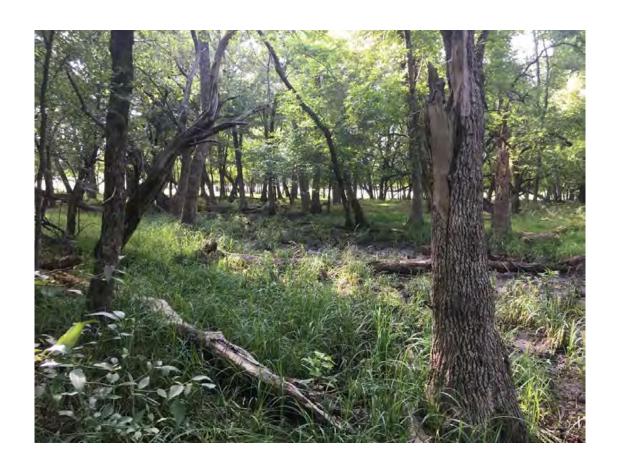


Project/Site: Lake Ralph Hall Supplemental JD	(City/County:	Ladonia/F	annin	Sampling Date: 5/31/17	
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP 405	
Investigator(s): Jason Voight, Andrew Sample				inge:		
Landform (hillslope, terrace, etc.): Valley		Local relief	(concave,	convex, none): Concave	Slope (%): <u>0-1</u> °	%
Subregion (LRR): Southwest Prairies	Lat: 33.4	16255		Long: -95.91884	Datum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical fo						
Are Vegetation, Soil, or Hydrology					present? Yes X No	
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site ma						tc.
Hydrophytic Vegetation Present? Yes X	_ No	la 4h	. Cammia	I Augo		
Hydric Soil Present? Yes X	No		e Sampled in a Wetla		No	
Wetland Hydrology Present? Yes X Remarks:		With	iii a vvetiai	103		
depressional area associated with fo	rmor chan	nol scar	·· not h	draulically conno	octod to any ovieting	
stream channel	ninei Gian	ilei scai	, HOUTIN	diadilcally corline	cled to any existing	
Stream channel						
VEGETATION – Use scientific names of p	lants.					
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover	Dominant Species?		Dominance Test work		
1. Fraxinus pennsylvanica	65	Yes	FAC	Number of Dominant Sport That Are OBL, FACW, or		
2. Celtis laevigata	5	No	FAC	(excluding FAC-):	2 (A))
3.				Total Number of Domin	ant	
4				Species Across All Stra	ta: <u>2</u> (B)	1
Continue (Charles Charles (Platein 700 sq ft	70	= Total Cov	ver .	Percent of Dominant Sp		
Sapling/Shrub Stratum (Plot size: 700 sq ft 1. Fraxinus pennsylvanica	5	No	FAC	That Are OBL, FACW,	or FAC: 100% (A/E	B)
2. Maclura pomifera	2	No	FACU	Prevalence Index wor	ksheet:	
3.		-		Total % Cover of:	Multiply by:	
4.					x 1 =	
5					x 2 =	
Hart Otratus (Distains 450 sq.ft	7	= Total Cov	ver .		x 3 =	
Herb Stratum (Plot size: 450 sq ft 1. Carex crus-corvi	70	Yes	OBL	FACU species	x 4 = x 5 =	
Carex crus-corvi 2.					(A) (B	3)
3					(-)	,
4					= B/A =	
5				Hydrophytic Vegetation		
6				2 - Dominance Tes	Hydrophytic Vegetation	
7				3 - Prevalence Inde		
8					Adaptations ¹ (Provide supporti	na
9				data in Remarks	s or on a separate sheet)	9
10		= Total Cov		Problematic Hydro	phytic Vegetation ¹ (Explain)	
Woody Vine Stratum (Plot size: 450 sq ft) 1				¹ Indicators of hydric soi be present, unless distu	l and wetland hydrology must urbed or problematic.	
2				Hydrophytic		
20	0	= Total Cov	ver .	Vegetation	s_XNo	
% Bare Ground in Herb Stratum 30 Remarks:				100		

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence of	indicators.)
Depth	Matrix			x Feature		. 2	<u>-</u>	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	90	10 YR 4/6	10	<u>C</u>	M	Clay	
·				_	_	-		
				_	_			
					_	_		
			-					
	-			_				
	oncentration, D=Dep					ed Sand C		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Applic	able to all					_	r Problematic Hydric Soils ³ :
Histosol	. ,				atrix (S4)			k (A9) (LRR I, J)
	pipedon (A2)			Redox (S	•			airie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (,		_	ace (S7) (LRR G)
	n Sulfide (A4)	- \			ineral (F1)		_	ns Depressions (F16)
	d Layers (A5) (LRR ick (A9) (LRR F, G,			ed Matrix	latrix (F2)		_ `	H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfac			Dark Surf	. ,			nt Material (TF2)
	ark Surface (A12)	C (ATT)			urface (F7	7)		llow Dark Surface (TF12)
	fucky Mineral (S1)			Depression		,		plain in Remarks)
	lucky Peat or Peat	(S2) (LRR (ressions (F16)		hydrophytic vegetation and
	icky Peat or Peat (S				73 of LR			ydrology must be present,
							unless dis	sturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Pro	esent? Yes X No
Remarks:							<u> </u>	
Redox fe	atures presen	t; Tinn c	lay, occasion	ally floo	oded is	nation	ally listed hyd	dric soil; naturally dark soil.
HYDROLO	GY							
Wetland Hy	drology Indicators:							
Primary India	cators (minimum of o	one required	d; check all that app	ly)			Secondary	Indicators (minimum of two required)
☐ Surface	Water (A1)		Salt Crust	(B11)			Surface	e Soil Cracks (B6)
	iter Table (A2)		Aquatic Ir		es (B13)			ly Vegetated Concave Surface (B8)
✓ Saturation	on (A3)		Hydrogen	Sulfide C	odor (C1)		Drainag	ge Patterns (B10)
✓ Water M	arks (B1)		Dry-Seas	on Water	Table (C2	2)	Oxidize	ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized	Rhizospho	eres on Li	ving Roots	s (C3) (whe	re tilled)
	posits (B3)		(where	not tilled)	•	☐ Crayfis	h Burrows (C8)
	at or Crust (B4)		Presence	of Reduc	ed Iron (C	(4)		tion Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		Thin Mucl			,		orphic Position (D2)
	on Visible on Aerial	Imagery (B			, ,			eutral Test (D5)
	tained Leaves (B9)	5 , (, `		,			leave Hummocks (D7) (LRR F)
Field Obser	. ,							. , , , ,
Surface Wate	er Present?	'es	No X Depth (ir	ches):				
Water Table			No X Depth (ir					
Saturation P			No Depth (ir				tland Hydrology P	resent? Yes X No
(includes cap		62	140 Depti1 (ii	iciies)		_ ***	liana riyarology r	resent: resNo
	corded Data (stream	n gauge, mo	onitoring well, aerial	photos, p	revious in	spections)	, if available:	
Remarks:								
Former of	hannel scar f	orms is	olated depres	sion				
. 5111101 0		JIJ 13	c.atou doprod					







Project/Site: Lake Ralph Hall Supplemental JD		City/Cou	ınty: Ladonia/F	annin	Sampling Date: 5/31/20	17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP 406	3
Investigator(s): Jason Voight, Andrew Sample		Section,	, Township, Ra	inge:		
Landform (hillslope, terrace, etc.): Valley		Local re	elief (concave,	convex, none): Concave	Slope (%):	0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	46259		_ Long: <u>-95.91885</u>	Datum: NAD	283
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for	this time of yea					
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" p		0
Are Vegetation, Soil X, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site ma						s, etc.
Hydrophytic Vegetation Present? Yes X	No					
Hydric Soil Present? Yes			s the Sampled		N- Y	
Wetland Hydrology Present? Yes		\ \	vithin a Wetlaı	nd? Yes	No X	
Remarks:						
VEGETATION – Use scientific names of plants	ants.					
Tree Stratum (Plot size: 700 sq ft)	Absolute		ant Indicator	Dominance Test work	sheet:	
1. Fraxinus pennsylvanica	40	Yes	es? Status FAC	Number of Dominant Sp That Are OBL, FACW, of		
2. Celtis laevigata	20	Yes		(excluding FAC-):	2	(A)
3. Maclura pomifera	5	No	FACU	Total Number of Domin	ant	
4. Ulmus crassifolia	5	No	FAC	Species Across All Stra	^	(B)
	70	= Total	Cover	Percent of Dominant Sp	necies	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, of		(A/B)
1. Maclura pomifera	5	No	FACU	Prevalence Index wor	ksheet:	
2				Total % Cover of:		
3					$x 1 = \frac{0}{}$	_
4				FACW species 5		_
5	5	= Total	Cover	FAC species 70	x 3 = 210	_
Herb Stratum (Plot size: 450 sq ft)		= TOtal	Covei	FACU species 14	x 4 = 56	_
1. Viola missouriensis	5	No	FACW	UPL species 90	$x = \frac{450}{}$	_
2. Carex planostachys	90	Yes	<u>UPL</u>	Column Totals: 179	(A) <u>726</u>	_ (B)
3. Elymus virginicus	5	No	FAC	Prevalence Index	$- R/\Delta - 4.06$	
4				Hydrophytic Vegetation		
5					Hydrophytic Vegetation	
6				2 - Dominance Tes		
7				3 - Prevalence Inde	ex is ≤3.0 ¹	
8					Adaptations ¹ (Provide supp	
9 10.					s or on a separate sheet)	
10.		= Total	Cover	Problematic Hydrop	ohytic Vegetation ¹ (Explai	ın)
Woody Vine Stratum (Plot size: 450 sq ft		- 10101	00701		l and wetland hydrology n	nust
1. Parthenocissus quinquefolia	2	No	FACU	be present, unless distu	irbed or problematic.	
2. Smilax bona-nox	2	No	FACU	Hydrophytic		
% Bare Ground in Herb Stratum 0%	4	= Total	Cover	Vegetation Present? Yes	s No	
Remarks:						

Profile Des	cription: (Describe	to the depth	needed to docu	ment the i	indicator	or confirn	n the absence o	f indicators.)
Depth	Matrix			ox Feature		. 2		
(inches)	Color (moist)	<u>%</u>	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 3/1	100					Clay	
								<u> </u>
				_				
	-							_
	-							
	oncentration, D=Dep					d Sand G		tion: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all LF	RRs, unless other	rwise not	ed.)		Indicators fo	or Problematic Hydric Soils ³ :
Histoso	, ,			Gleyed Ma	. ,			ıck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	,			rairie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S	,			rface (S7) (LRR G)
	en Sulfide (A4) d Layers (A5) (LRR	- \		Mucky Mir			_	nins Depressions (F16)
	uck (A9) (LRR F, G,	,		Gleyed Maded Matrix (t H outside of MLRA 72 & 73) d Vertic (F18)
	d Below Dark Surfac	,		Dark Surfa	,			rent Material (TF2)
	ark Surface (A12)	, o (,)	_	ed Dark Su	, ,)	_	allow Dark Surface (TF12)
_	Mucky Mineral (S1)			Depressio	, ,			explain in Remarks)
2.5 cm	Mucky Peat or Peat	(S2) (LRR G ,	H) 🔲 High P	ains Depre	essions (F	16)	³ Indicators of	f hydrophytic vegetation and
5 cm M	ucky Peat or Peat (S	3) (LRR F)	(MI	RA 72 & 7	73 of LRR	H)		hydrology must be present,
							unless d	listurbed or problematic.
Restrictive	Layer (if present):							
Type:			_					
Depth (in	ches):						Hydric Soil P	resent? Yes No X
Remarks:								
NI I -		- (6						and a second formally ordered and an all
ivo read	x reatures; is	solated t	ormer cnai	nnei sc	car tori	ms cio	sea aepre	ssion; naturally dark soil
HYDROLO	GY							
	drology Indicators	,						
-	cators (minimum of		chack all that ann	lv/)			Sacandan	y Indicators (minimum of two required)
	Water (A1)	nie requirea, i	Salt Crus	•				•
	, ,		_	vertebrate	o (P12)			ce Soil Cracks (B6) sely Vegetated Concave Surface (B8)
Saturati	ater Table (A2)			Sulfide O	. ,			age Patterns (B10)
	farks (B1)			on Water 1				zed Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe	, ,		· 	ere tilled)
	posits (B3)			not tilled)		ing Roots		ish Burrows (C8)
1 1 1	at or Crust (B4)			of Reduce		1)		ation Visible on Aerial Imagery (C9)
1 1 -	posits (B5)			k Surface (*)	_	norphic Position (D2)
ı ==	ion Visible on Aerial	Imagery (B7)		plain in Re				Neutral Test (D5)
	Stained Leaves (B9)	imagery (Dr)	<u> </u>	piairiirite	inano,			Heave Hummocks (D7) (LRR F)
Field Obser	. ,							ricave riamineons (B7) (Entry)
Surface Wat		/as No	X Depth (ir	rches).				
Water Table			Depth (ir Depth (ir					
							and Hudralagu	Present? Yes No X
Saturation F (includes ca	resent? pillary fringe)	res No	Depth (ir	icnes):		_ weti	and nydrology	Present? res No
	corded Data (stream	n gauge, moni	toring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
No hydro	ologic indicato	rs observ	/ed					
	g.o maioato	. 5 555011						





Project/Site: Lake Ralph Hall Supplemental JD City/County: Ladonia/Fannin Sampling Date: 6/2/2							2/2017
Applicant/Owner: Upper Trinity Regional Water District			-	State: TX	Samp	· -	
Investigator(s): Jason Voight, Andrew Sample				Range:			
Landform (hillslope, terrace, etc.): Valley				=		Slope	(%): 0-1%
Subregion (LRR): Southwest Prairies							
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI c			
Are climatic / hydrologic conditions on the site typical for t							
Are Vegetation, Soil, or Hydrology				Are "Normal Circumsta			No
Are Vegetation, SoilX, or Hydrology				If needed, explain any			110
SUMMARY OF FINDINGS – Attach site ma							tures, etc.
Hydrophytic Vegetation Present? Ves X	No						·
Hydric Soil Present? Yes	NoX		Is the Samp within a We		s I	No X	
Wetland Hydrology Present? Yes	No X		within a vve	tiana: 10	· '		
Heavy storms the previous day; outside		sted	wetland	delineated at v	vp307		
VEGETATION – Use scientific names of pla	Absolute	Domir	nant Indicat	or Dominance Tes	t workshoot		
Tree Stratum (Plot size: 700 sq ft)			ies? Statu				
1. Fraxinus pennsylvanica	10	No	FAC	That Are OBL, F	ACW, or FAC	2	443
2. Ulmus americana	5	No	FAC	excluding FAC-	·):		(A)
3				Total Number of		2	(5)
4	4.5			Species Across	All Strata:		(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	15	= Total	l Cover	Percent of Domi		. 100	(A/B)
1. Ulmus americana	5	No	FAC	That Are OBL, F	ACVV, OI FAC	,	(A/b)
2. Juniperus virginiana	5	No	FAC	Prevalence Inde			
3					er of:	-	
4				OBL species			
5				FACW species FAC species			
Herb Stratum (Plot size: 450 sq ft	10	= Total	l Cover	FACU species		x 4 =	
1. Toxicodendron radicans	5	No	FACU				
2. Bignonia capreolata	5	No	FAC	Column Totals:			
3. Ambrosia trifida	30	Yes	FAC				
4. Amaranthus tuberculatus	10	No	FAC		Index = B/A		
5. Torilis arvensis	10	No	FAC	Hydrophytic Ve	_		
6. Elymus virginicus	20	Yes		— 🔽 2 Dominar	est for Hydrop ace Test is >50	-	ion
7. Erigeron annuus	10	No	FACU		ce Index is ≤3		
8					ogical Adaptat		e supportina
9				— data in R	emarks or on	a separate sl	heet)
10				— <u> </u>	Hydrophytic \	Vegetation ¹ (E	Explain)
Woody Vine Stratum (Plot size: 450 sq ft 1.		= Total		¹ Indicators of hybe present, unle			
2.				Hydrophytic			
		= Total		Vegetation	,. v		
% Bare Ground in Herb Stratum 10	-			Present?	Yes X	No	
Remarks:							

Profile Desc	ription: (Describe	e to the depth	needed to docui	nent the	indicator	or confirr	n the absence of i	ndicators.)
Depth	Matrix			x Feature	S1	. 2	- :	5
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	100					Clay	
					. '			_
·				-	· ——			_
				_				
	-			-	·			
1= 0.0							2	
	oncentration, D=De					ed Sand G		n: PL=Pore Lining, M=Matrix.
	Indicators: (Appli	cable to all LR					_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				(A9) (LRR I, J)
	oipedon (A2)			Redox (S5	•			rie Redox (A16) (LRR F, G, H)
Black Hi	` '			d Matrix (S	,		_	ce (S7) (LRR G)
	n Sulfide (A4) d Layers (A5) (LRR	E/		Mucky Mii Gleyed Mi			-	s Depressions (F16) outside of MLRA 72 & 73)
	ick (A9) (LRR F, G			d Matrix (, ,		Reduced V	,
	d Below Dark Surfa			Dark Surfa	,			t Material (TF2)
	ark Surface (A12)	00 (7111)			urface (F7))	=	ow Dark Surface (TF12)
	fucky Mineral (S1)			Depressio	` '	,		lain in Remarks)
	Mucky Peat or Peat	(S2) (LRR G, I			essions (F	16)		ydrophytic vegetation and
	icky Peat or Peat (RA 72 & 1	73 of LRR	R H)		drology must be present,
							unless dist	urbed or problematic.
Restrictive I	_ayer (if present):							
Type:			_					
Depth (inc	ches):						Hydric Soil Pres	sent? Yes No_X
Remarks:								
∣No re	dox fea	tures						
HYDROLO	GY							
Wetland Hyd	drology Indicators	s:						
Primary Indic	cators (minimum of	one required; o	heck all that appl	y)			Secondary Ir	ndicators (minimum of two required)
☐ Surface	Water (A1)		Salt Crust	(B11)			Surface	Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			/ Vegetated Concave Surface (B8)
☐ Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainage	e Patterns (B10)
☐ Water M	arks (B1)		☐ Dry-Seaso	on Water 1	Γable (C2)		Oxidized	d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F		, ,		(C3) (where	e tilled)
	posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)		J	· · — ·	Burrows (C8)
	at or Crust (B4)		Presence			4)		on Visible on Aerial Imagery (C9)
-	oosits (B5)		Thin Muck			,		phic Position (D2)
	on Visible on Aerial	Imagery (B7)	Other (Ex		. ,			utral Test (D5)
	tained Leaves (B9)	0 , (,	<u> </u>	J. G. I.	marko)			eave Hummocks (D7) (LRR F)
Field Observ	. ,						<u> </u>	(= 1, (= 11.1.)
Surface Water		Yes No	X Depth (in	ches).				
Water Table			X Depth (in					
							land Usahalama Pu	esent? Yes No _X
Saturation Proceed (includes cape		Yes No	X Depth (in	cnes):		wet	iand Hydrology Pro	esent? Yes No
	corded Data (stream	m gauge, monit	oring well, aerial	photos, pr	evious ins	pections),	, if available:	
			-			,		
Remarks:								
. to.manto.								









Project/Site: Lake Ralph Hall Supplemental JD	nental JD City/County: Ladonia/Fannin Sampling Date: 6						17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling		
Investigator(s): Jason Voight, Andrew Sample				nge:			
Landform (hillslope, terrace, etc.): Valley		Local rel	ief (concave,	convex, none): Concave		Slope (%)	0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	15314		Long: -95.97526		Datum: NA	D83
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for th							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances" p		es X N	lo
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site map							s, etc.
Hydrophytic Vegetation Present? Yes X 1	No	le	the Sampled	Aroa			
Hydric Soil Present? Yes X	No		ithin a Wetlar		No		
Wetland Hydrology Present? Yes X	No						
Remarks:							
Heavy storms the previous day; depres				with former char	inel sca	r; not	
hydraulically connected to any existing	stream	chann	iel				
VEGETATION – Use scientific names of plan	nts.						
700 #	Absolute		ant Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft 1. Fraxinus pennsylvanica	<u>% Cover</u> 65	Species Yes	Status FAC	Number of Dominant S			
Ilmus americana Ulmus americana	20	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	2	(A)
3. Celtis laevigata	10	No	FAC		-		,
4				Total Number of Domir Species Across All Stra		2	(B)
	95	= Total C	Cover	Percent of Dominant S	necies		
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW,		100	(A/B)
1. Ulmus americana	5 5	No	FAC	Prevalence Index wor	ksheet:		
Celtis laevigata Fraxinus pennsylvanica	_ 5	No	FAC FAC	Total % Cover of:		Multiply by:	
				OBL species			
4				FACW species	x 2	=	_
<u> </u>	10	= Total C	Cover	FAC species	x 3	=	_
Herb Stratum (Plot size: 450 sq ft)				FACU species		=	_
1. Elymus virginicus	- 1	No	FAC	UPL species			
Bignonia capreolata Ambrosia trifida		No No	FAC FAC	Column Totals:	(A)	-	(B)
Torilis arvensis	- 3	No	FAC	Prevalence Index	= B/A = _		
¬''				Hydrophytic Vegetation	on Indicato	ors:	
5 6				1 - Rapid Test for I	Hydrophytic	Vegetation	
7.				2 - Dominance Tes			
8.				3 - Prevalence Ind		4	
9				4 - Morphological / data in Remark	Adaptations s or on a se	' (Provide sur eparate sheet)	porting
10				Problematic Hydro			
Washi Vina Chahim (District 450 sq ft	10	= Total C	Cover	Indicators of hydric so	. ,		,
Woody Vine Stratum (Plot size: 450 sq ft) 1				be present, unless dist			must
2				Hydrophytic			
0/ Page Cround in Hosh Strature 90	0			Vegetation Ye	s X	No	
% Bare Ground in Herb Stratum 90 Remarks:				10			

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the i	indicator	or confirr	n the absence of	f indicators.)
Depth	Matrix			x Feature	S	2		
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	95	10 YR 4/6	5	C	M	Clay	
·					. ———			
	-			_				
				_				
				_				
	-							
			=Reduced Matrix, C			d Sand G		tion: PL=Pore Lining, M=Matrix.
_		cable to all	LRRs, unless othe				_	or Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				ck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5				rairie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (S	,		=	face (S7) (LRR G)
	n Sulfide (A4)	- \		Mucky Mir			_	ins Depressions (F16)
	d Layers (A5) (LRR ick (A9) (LRR F, G,			Gleyed Maded Matrix (_ `	H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfac			Dark Surfa	,			ent Material (TF2)
	ark Surface (A12)	DC (A11)		ed Dark Su	, ,			allow Dark Surface (TF12)
	fucky Mineral (S1)			Depressio	, ,			xplain in Remarks)
	lucky Peat or Peat	(S2) (LRR (ains Depre	. ,	16)		hydrophytic vegetation and
	icky Peat or Peat (S			.RA 72 & 7	•			nydrology must be present,
							unless di	isturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil P	resent? Yes X No
Remarks:								
Redox fe	atures preser	nt; Tinn o	clay, occasion	ally floo	oded is	nation	ally listed hy	dric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one require	d; check all that app	ly)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			☐ Surfac	ce Soil Cracks (B6)
	iter Table (A2)			vertebrate	s (B13)			ely Vegetated Concave Surface (B8)
Saturation			= '	Sulfide O	, ,			age Patterns (B10)
	arks (B1)			on Water 1				ted Rhizospheres on Living Roots (C3)
	nt Deposits (B2)			Rhizosphe	, ,	na Roots		ere tilled)
	posits (B3)			not tilled)			` ′ 🗖 `	sh Burrows (C8)
	at or Crust (B4)		_ `	of Reduce		1)		ation Visible on Aerial Imagery (C9)
"	oosits (B5)			Surface (•	,		orphic Position (D2)
	on Visible on Aerial	Imagery (B	_	plain in Re	. ,			Neutral Test (D5)
I 💳	tained Leaves (B9)			p.a	,,,,a,,,,,			Heave Hummocks (D7) (LRR F)
Field Obser	. ,						<u> </u>	(= 1, (= 111)
Surface Water		/es	No X Depth (ir	rches).				
Water Table			No X Depth (ir					
							land Uudrelee:	Present? Yes X No
Saturation Pi (includes cap		res	No X Depth (ir	icnes):		_ wet	iand Hydrology i	Present? Yes No
		n gauge, m	onitoring well, aerial	photos, pr	evious ins	pections),	, if available:	
Remarks:								













Project/Site: Lake Ralph Hall Supplemental JD		City/Cour	nty: Ladonia/F	annin g	Sampling Date: 5/3	1/2017
Applicant/Owner: Upper Trinity Regional Water District		State: TX S	Sampling Point: WF	ampling Point: WP 474		
Investigator(s): Jason Voight, Andrew Sample		Section,	Township, Ra	nge:		
Landform (hillslope, terrace, etc.): Valley		Local rel	ief (concave,	convex, none): Concave	Slope	(%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	15216		Long: <u>-95.94622</u>	Datum:	NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifica		
Are climatic / hydrologic conditions on the site typical for tl	nis time of yea					
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" pre		No
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answers		
SUMMARY OF FINDINGS – Attach site map					,	ures, etc.
Hydrophytic Vegetation Present? Yes X	No					
Hydric Soil Present? Yes			the Sampled		M- V	
Wetland Hydrology Present? Yes x		W	ithin a Wetlar	10? Yes	No _X	
Remarks:						
VEGETATION – Use scientific names of pla	nts.					
700 cg ft	Absolute		nt Indicator	Dominance Test works	heet:	
Tree Stratum (Plot size: 700 sq ft) 1 Acer negundo	% Cover	Yes	S? Status FAC	Number of Dominant Spe		
2. Ulmus americana	45	Yes	FAC	That Are OBL, FACW, or (excluding FAC-):	3 <u>3</u>	(A)
3				Total Number of Domina	nt	
4				Species Across All Strata	4	(B)
T	95	= Total C	Cover	Percent of Dominant Spe		
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW, or		(A/B)
1. Acer negundo	10		FAC	Prevalence Index works	shoot:	
2. Morus rubra	10	Yes	FACU	Total % Cover of:		٧٠.
3				OBL species		
4				FACW species		
5	20	= Total C		FAC species		
Herb Stratum (Plot size: 450 sq ft)		= rotar C	over	FACU species		
1. Lolium multiflorum	2	No	UPL	UPL species		
2. Carex crus-corvi	2	No	OBL	Column Totals:	(A)	(B)
3				Prevalence Index =	_ B/A _	
4				Hydrophytic Vegetation		
5				1 - Rapid Test for Hy		n
6				2 - Dominance Test		
7				3 - Prevalence Index	is ≤3.0 ¹	
8				4 - Morphological Ad		
9 10		-			or on a separate sh	•
10.	4	- Total C	`over	Problematic Hydroph	nytic Vegetation (E	xplain)
Woody Vine Stratum (Plot size:) 1			, over	¹ Indicators of hydric soil a be present, unless disturb		ogy must
2.				Hydrophytic		
-		= Total C	Cover	Vegetation	X No.	
% Bare Ground in Herb Stratum 96				Present? Yes	<u>х</u> Nо	_
Remarks:		0	D.	mat have been the second	and the section of th	. 11
Up between remnant channels of form	ner North	Sulph	iur River;	not nydraulically c	or nydrologica	ally
connected to existing main channel.						

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confir	m the absence of in	ndicators.)
Depth	Matrix			x Feature	S1	. 2		
(inches) 0-18	Color (moist) 10 YR 2/1		Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
	10 18 2/1	99	10.1/2 1/2				Clay	
12-18			10 YR 4/6	1	С	M	Clay	
								
								
·								
			=Reduced Matrix, CS			ed Sand G		n: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless other	rwise not	ed.)		Indicators for F	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				(A9) (LRR I, J)
	ipedon (A2)			Redox (S5			_	rie Redox (A16) (LRR F, G, H)
Black His	, ,			d Matrix (S	,			ce (S7) (LRR G)
	n Sulfide (A4) Layers (A5) (LRR I	E)		Mucky Mi Gleyed M			_	Depressions (F16) outside of MLRA 72 & 73)
	ck (A9) (LRR F, G ,			d Matrix (, ,		Reduced V	•
	Below Dark Surfac			Dark Surfa				t Material (TF2)
	rk Surface (A12)	,	_	d Dark Su	, ,)		ow Dark Surface (TF12)
Sandy M	ucky Mineral (S1)		Redox [Depressio	ns (F8)		Other (Expl	lain in Remarks)
	lucky Peat or Peat (. , ,		ains Depr	•	,		drophytic vegetation and
5 cm Mu	cky Peat or Peat (S	3) (LRR F)	(ML	RA 72 &	73 of LRI	R H)		drology must be present,
Destrictive I	.ayer (if present):						unless disti	urbed or problematic.
	shoo):						Hudria Sail Bros	sent? Yes No X
Remarks:	ches):						nyunc son Fres	sent? res NO
Remarks.								
Insufficient	redox features	observe	ed: Tinn clay, oc	casiona	ally floo	ded is n	nationally listed h	nydric soil; naturally dark soil
HYDROLO	GY							
Wetland Hyd	Irology Indicators:							
Primary Indic	ators (minimum of o	ne require	d; check all that appl	y)			Secondary In	dicators (minimum of two required)
Surface \	Water (A1)		Salt Crust	(B11)			Surface :	Soil Cracks (B6)
	ter Table (A2)		Aquatic In		es (B13)			Vegetated Concave Surface (B8)
Saturation			Hydrogen					e Patterns (B10)
Water Ma	arks (B1)		Dry-Seaso	n Water	Table (C2)	Oxidized	Rhizospheres on Living Roots (C3)
Sedimen	t Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	s (C3) (where	e tilled)
☐ Drift Dep	osits (B3)		(where i	not tilled))		Crayfish	Burrows (C8)
☐ Algal Ma	t or Crust (B4)		Presence	of Reduce	ed Iron (C	4)	Saturatio	on Visible on Aerial Imagery (C9)
☐ Iron Dep	osits (B5)		Thin Muck	Surface	(C7)		Geomorp	phic Position (D2)
Inundation	on Visible on Aerial	lmagery (B	7) 📙 Other (Exp	olain in Re	emarks)		FAC-Net	utral Test (D5)
✓ Water-St	ained Leaves (B9)							eave Hummocks (D7) (LRR F)
Field Observ								
Surface Water			No X Depth (in					
Water Table	Present? Y	'es	No X Depth (in	ches):				
Saturation Pr (includes cap		'es	No X Depth (in	ches):		Wet	tland Hydrology Pre	esent? Yes X No No
		gauge, m	onitoring well, aerial ¡	photos, pr	evious in	spections)	, if available:	
Remarks:								
between	meander ben	ids of ir	npounded sec	tion of	remna	ant forr	mer North Sul	phur River channel





Project/Site: Lake Ralph Hall Supplemental JD		City/Cou	unty: Ladonia/F	annin	Sampling Date:		
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Poin	Sampling Point: WP 482	
Investigator(s): Jason Voight, Andrew Sample				ange:			
Landform (hillslope, terrace, etc.): Valley		Local re	elief (concave,	convex, none): Concave		Slope (%): 0-1%	
Subregion (LRR): Southwest Prairies	Lat: 33.4	16276		Long: <u>-95.91907</u>	Da	atum: NAD83	
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		X No	
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							
Hydrophytic Vegetation Present? Yes _X	No		o the Complet	J Avon			
Hydric Soil Present? Yes X	No		s the Sampled within a Wetla		No _X		
	No x						
Remarks:							
depressional area associated with fo	rmer chan	inel s	car; not hy	draulically conne	ected to an	y existing	
stream channel							
VEGETATION – Use scientific names of p	lants.						
To Otation (District 700 sq ft	Absolute		nant Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft) 1. Celtis laevigata	<u>% Cover</u> 10	Specie No	es? Status FAC	Number of Dominant S That Are OBL, FACW,			
2. Ulmus crassifolia	50	Yes	FAC	(excluding FAC-):	3	(A)	
3. Fraxinus pennsylvanica	20	Yes	FAC	Total Number of Domir	nant		
4. Maclura pomifera	10	No	FACU	Species Across All Stra	2	(B)	
700 (90	= Total	Cover	Percent of Dominant S	pecies		
Sapling/Shrub Stratum (Plot size: 700 sq ft)	5	No	FAC	That Are OBL, FACW,		(A/B)	
Fraxinus pennsylvanica Gleditsia triacanthos	5	No No	FAC	Prevalence Index wor	ksheet:		
3. Ulmus crassifolia		No	FAC	Total % Cover of:	Mult	iply by:	
4. Celtis laevigata	5	No	FAC	OBL species	x 1 =		
5.				FACW species			
	20	= Total	Cover	FAC species			
Herb Stratum (Plot size: 450 sq ft)	4.5	Vaa	EAC)//	FACU species			
Carex cherokeensis Ptilimnium nuttallii	<u>15</u>	Yes No	FACW FACW	UPL species Column Totals:			
				Column Totals:	(A)	(B)	
3				Prevalence Index	= B/A =		
5				Hydrophytic Vegetation			
6.				1 - Rapid Test for I		getation	
7.				2 - Dominance Tes			
8				3 - Prevalence Ind			
9				4 - Morphological / data in Remark	s or on a separa	ate sheet)	
10				Problematic Hydro	phytic Vegetatic	on ¹ (Explain)	
Woody Vine Stratum (Plot size: 450 sq ft)	20	= Total	Cover	¹ Indicators of hydric so	il and wetland h	vdrology must	
1				be present, unless dist			
2				Hydrophytic			
909/		= Total		Vegetation Present? Ye	es X No		
% Bare Ground in Herb Stratum 80% Remarks:				r-resents fe	3 NO		
INCHIAINS.							

Depth Main Select February Select Februa	Profile Des	cription: (Describe	to the dep	oth needed to docur	nent the	indicator	or confir	m the absence of in	dicators.)		
10 YR 3/1 98 10 YR 4/6 2							2	_			
4-18 10 YR 3/1 98 10 YR 4/6 2 C M Clay Type: Caconcentration. 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.) Histic Epredon (A2)			Color (moist)	%	Type'	Loc	<u>Texture</u>	Remarks			
"Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. "Location: PL=Pore Lining, M=Matrix. Hydric Soll Indicators: (Applicable to all LRRs, unless otherwise noted.) Histosol (A) Histosol (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histos (A) Black Histosol (A) Black Hist	0-4	10 YR 3/1	100								
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	4-18	10 YR 3/1	98	10 YR 4/6	2	С	M	Clay			
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)		-			-						
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)							-				
Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)											
Histoso (A1)							ed Sand (
Histic Epipedon (A2) Sandy Redox (S5) Coast Partaine Redox (A16) (LRR F, G, H)	Hydric Soil	Indicators: (Applie	cable to all	LRRs, unless other	rwise no	ted.)		_	•		
Straped Matrix (S6)		• ,			-	, ,					
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) High Pfains Depressions (F16) Curry Muck (A5) (LRR F, G, H) Loamy Gleyed Matrix (F2) Depleted Below Dark Surface (A11) Depleted Below Dark Surface (A12) Depleted Balsw Dark Surface (F3) Depleted Balsw Dark Surface (F3) Depleted Balsw Dark Surface (F3) Depleted Dark Surface									, , , , , , , , , , , , , , , , , , , ,		
Startified Layers (A5) (LRR F)		, ,			,	,		=	` , ` ,		
Depleted Below Dark (A9) (LRR F, G, H) Depleted Matrix (F3) Redox Dark Surface (A12) Redox Dark Surface (A12) Depleted Below Dark Surface (A12) Depleted Dark Surface (F1) Redox Dark Surface (F1) Very Shallow Dark Surface (TF12) Other (Explain in Remarks) Ot		, ,						_			
Depleted Below Dark Surface (A11)			,					_ `	•		
Thick Dark Surface (A12)						. ,			, ,		
Sandy Mucky Mineral (S1) Sandy Mucky Mineral (S2) (LRR G, H) Redox Depressions (F8) High Plains Depressions (F16) Sindicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic. Restrictive Layer (if present): Type: Depth (inches): Redox features present; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soils Hydric Soil Present? Yes X No Remarks: Redox features present; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soils HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required: check all that apply) Surface Water (A1) Surface Water (A1) High Water Table (A2) Saturation (A3) Saturation (A3) Saturation (A3) Saturation Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Presence of Reduced Iron (C4) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Iron Deposits (B5) Surface Water Present? Water Table Present? Water Table Present? Weter No X Depth (inches): Water Table Present? Water Table Present? Weter Present? Weter No X Depth (inches): Water Table Present? Weter Present? Water Table Present? Weter No X Depth (inches): Water Table Present? Weter Ack Surface (C7) Water Present? Water Table Present? Weter No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Remarks:			ce (A11)	_		` ,					
2.5 cm Mucky Peat or Peat (S2) (LRR G, H)		, ,)		, ,		
S cm Mucky Peat or Peat (S3) (LRR F)			(S2) (I DD				(16)	 · · ·	,		
Restrictive Layer (if present): Type: Depth (inches): Remarks: Redox features present; Tinn clay, occasionally flooded is nationally listed hydric soil; naturally dark soils HYDROLOGY Wetland Hydrology Indicators: Primary Indicators (minimum of one required; check all that apply) Surface Water (A1) High Water Table (A2) Aquatic Invertebrates (B13) Hydrogen Sulfide Odor (C1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) In Deposits (B5) In Inundation Visible on Aerial Imagery (B7) Water Stained Leaves (B9) Field Observations: Surface Water Present? Yes No Depth (inches): Sufface Water Present? Yes No Depth (inches): Saturation Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Table Present? Yes No Depth (inches): Water Marks: Wetland Hydrology 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): Wetland Hydrology Present? Yes No X Depth (inches): Water Table Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X Depth (inches):								•	. , .		
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Surface Water (A1)	_			d: check all that anni-	v)			Secondary In	dicators (minimum of two required)		
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Saturation (A3)				_		(D40)			` ,		
Water Marks (B1)				_					• , ,		
Sediment Deposits (B2) 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? Water Table 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): Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:		` '		_ ` `		, ,					
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☐ Iron Deposits (B5) ☐ Thin Muck Surface (C7) ☐ Geomorphic Position (D2) ☐ Inundation Visible on Aerial Imagery (B7) ☐ Other (Explain in Remarks) ☐ FAC-Neutral Test (D5) ☐ 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? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _X Depth (inches): Becorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:											
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Water Table Present? Yes No _X Depth (inches): Saturation Present? Yes No _X Depth (inches): Wetland Hydrology Present? Yes No _X Depth (inches): Uncludes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Field Obser										
Saturation Present? Yes No X Depth (inches): Wetland Hydrology Present? Yes No X (includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Surface Wat	ter Present?	Yes	No X Depth (in	ches):						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Water Table	Present?	Yes	No X Depth (in	ches):						
(includes capillary fringe) Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Remarks:	Saturation P	resent?	Yes	No X Depth (in	ches):		We	tland Hydrology Pre	esent? Yes No X		
Remarks:	(includes ca	pillary fringe)									
	Describe Re	Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:									
insufficient hydrological indicators observed	Remarks:										
	insufficie	nt hydrologic	al indica	ators observed	t						
		, 5									







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		
				nge:		
Landform (hillslope, terrace, etc.): Valley				=	S	Slope (%): 0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	6313	•	Long: -95.91921	Da	itum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for this	s time of yea					
Are Vegetation, Soil, or Hydrologys				"Normal Circumstances" p		X No
Are Vegetation, Soil x, or Hydrology n				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site map						
Hydrophytic Vegetation Present? Yes X N	^					
Hydrophytic Vegetation Present? Yes X N Hydric Soil Present? Yes X N			ne Sampled			
Wetland Hydrology Present? Yes X N	0	with	nin a Wetlar	nd? Yes X	No	_
Remarks:						
depressional area associated with form	er chan	nel sca	r; not hy	draulically conne	cted to any	y stream
channel				•	·	•
VEGETATION – Use scientific names of plan	ts.					
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		Indicator Status	Dominance Test work		
1. Quercus macrocarpa	10	No	FACU	Number of Dominant Sport Are OBL, FACW, or		
2. Ulmus crassifolia	60	Yes	FAC	(excluding FAC-):	1	(A)
3. Fraxinus pennsylvanica	10	No	FAC	Total Number of Domin	ant	
4	<u> </u>			Species Across All Stra	ta: <u>1</u>	(B)
700 07 #	80	= Total Co	ver	Percent of Dominant Sp	pecies	
Sapling/Shrub Stratum (Plot size: 700 sq ft 1. Ulmus crassifolia	5	No	FAC	That Are OBL, FACW,		(A/B)
				Prevalence Index wor	ksheet:	
2				Total % Cover of:	<u>Mult</u> i	iply by:
3				OBL species 8	x 1 = 8	
5.				FACW species 5		
	5	= Total Co	ver		$x 3 = \frac{24}{3}$	
Herb Stratum (Plot size: 450 sq ft)				FACU species 10		
1. Carex crus-corvi	8	No	OBL		x 5 =	
2. Ptilimnium nuttallii	5 5	No	FACW	Column Totals: 103	(A)	98 (B)
3. Amaranthus tuberculatus		No	FAC	Prevalence Index	= B/A = 2.89	
4				Hydrophytic Vegetation	on Indicators:	
5				1 - Rapid Test for F	, , , ,	jetation
6				2 - Dominance Tes		
8.				3 - Prevalence Inde		
9				4 - Morphological A		
10.				Problematic Hydro		,
450 6	18	= Total Co	ver	l		
Woody Vine Stratum (Plot size: 450 sq ft) 1				¹ Indicators of hydric soi be present, unless distu		
2				Hydrophytic		
	•	= Total Co		Vegetation	. X N.	
% Bare Ground in Herb Stratum 82				Present? Ye	s <u>X</u> No	
Remarks:						

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence of in	ndicators.)
Depth	Matrix			x Feature		2	-	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 3/1	98					Clay	
4-18			10YR 4/6	2	С	М	Clay	
								_
						-		
		 		-	-			
								
				_	_	_		
	-					-		
1- 0.0							2	
			Reduced Matrix, CS			ed Sand G		n: PL=Pore Lining, M=Matrix.
_		cable to all	LRRs, unless othe				_	Problematic Hydric Soils ³ :
Histosol	. ,				atrix (S4)			(A9) (LRR I, J)
	oipedon (A2)			Redox (S				rie Redox (A16) (LRR F, G, H)
Black Hi	stic (A3) n Sulfide (A4)			d Matrix (,		=	ce (S7) (LRR G)
	d Layers (A5) (LRR	E)			ineral (F1) latrix (F2)	1	-	s Depressions (F16) outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,			d Matrix			Reduced V	,
	d Below Dark Surfac			Dark Surf	. ,			t Material (TF2)
	ark Surface (A12))O (/ (urface (F7	')		ow Dark Surface (TF12)
	lucky Mineral (S1)			Depression		,		lain in Remarks)
	Aucky Peat or Peat	(S2) (LRR (•	essions (I	- 16)		ydrophytic vegetation and
	ıcky Peat or Peat (S				73 of LR			drology must be present,
							unless dist	urbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Pres	sent? Yes X No
Remarks:								
Redox fea	atures observ	ed; Tinn	clay, occasion	nally flo	oded i	s natio	nally listed hyd	dric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators							
Primary India	cators (minimum of	one required	d; check all that appl	y)			Secondary Ir	ndicators (minimum of two required)
-	Water (A1)		☐ Salt Crust				Surface	Soil Cracks (B6)
	iter Table (A2)		Aquatic In		es (B13)			Vegetated Concave Surface (B8)
Saturation			Hydrogen					e Patterns (B10)
	arks (B1)		Dry-Seaso)		d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized F					e tilled)
111	posits (B3)			not tilled		virig rtoots		Burrows (C8)
	at or Crust (B4)		Presence			·//)		on Visible on Aerial Imagery (C9)
-	osits (B5)		Thin Muck			·¬)		phic Position (D2)
	on Visible on Aerial	Imagary (B	=		` '			utral Test (D5)
	tained Leaves (B9)	iiiagery (Di	Other (LX)	Jiaiii iii iX	ciliaiks)			eave Hummocks (D7) (LRR F)
Field Obser	. ,						<u> </u>	save Hummocks (DT) (ERRT)
		/00	No X Depth (in	ohoo):				
Surface Water								
Water Table			No x Depth (in					v
Saturation P		res	No X Depth (in	ches):		Wet	tland Hydrology Pro	esent? Yes X No No
(includes cap Describe Re		n gauge, mo	onitoring well, aerial	photos. n	revious in	spections)	, if available:	
	(2.1.2	5 . 5 . ,	J : ,	,, p		,		
Remarks:								
				ا جاجاجا				
aepressi	onai area ass	ociated	with former c	nanne	scar			









Project/Site: Lake Ralph Hall Supplemental JD		City/Coun	ty: Ladonia/F	annin	Sampling	g Date: 6/2/2	2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	g Point: WP5	581
Investigator(s): Jason Voight, Andrew Sample		Section, T	Гownship, Ra	inge:			
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave,	convex, none): Concave		Slope (%	%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	45307		Long: <u>-95.97526</u>		Datum: N	NAD83
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for t	his time of ye						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site ma							res, etc.
Hydrophytic Vegetation Present? Yes X	No	le i	the Sampled	I Area			
Hydric Soil Present? Yes	NoX		thin a Wetlaı		No	Χ	
Wetland Hydrology Present? Yes	No X		u wena				
Remarks: Heavy storms the previous day; outside							
VEGETATION – Use scientific names of pla							
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		nt Indicator ? Status	Dominance Test worl			
1. Fraxinus pennsylvanica	10	No	FAC	Number of Dominant S That Are OBL, FACW,			
2. Ulmus americana	35	Yes	FAC	(excluding FAC-):		4	(A)
3. Celtis laevigata	35	Yes	FAC	Total Number of Domi		-	
4				Species Across All Stra	ata:	5	(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	80	= Total C	over	Percent of Dominant S		80	(4 (5)
1. Ulmus americana	5	No	FAC	That Are OBL, FACW,	or FAC:	- 60	(A/B)
2. Celtis laevigata	10	No	FAC	Prevalence Index wo	ksheet:		
3. Fraxinus pennsylvanica	20	Yes	FAC	Total % Cover of:		Multiply by:	<u>:</u>
4. Quercus muehlenbergii	5	No	FAC	OBL species			
5. Acer negundo	5	No	FAC	FACW species			
Harb Ctrature (Blat size, 450 sq ft	45	= Total C	over	FACIL species			
Herb Stratum (Plot size: 450 sq ft 1. Elymus virginicus	35	Yes	FAC	FACU species		4 = 5 =	
2. Torilis arvensis	10	No	UPL	Column Totals:			
3. Ambrosia trifida	10	No	FAC				
4. Parthenocissus quinquefolia	10	No	FACU	Prevalence Index			
5. Toxicodendron radicans	30	Yes	FACU	Hydrophytic Vegetati			
6				1 - Rapid Test for 2 - Dominance Te		•	1
7				3 - Prevalence Ind			
8				4 - Morphological			supporting
9				data in Remark			
10				Problematic Hydro	phytic Ve	getation¹ (Exp	olain)
Woody Vine Stratum (Plot size: 450 sq ft)	95	= Total C	over	¹ Indicators of hydric so	il and wetl	and hydrolog	y must
1. Parthenocissus quinquefolia	5	No	FACU	be present, unless dist			
2.	5	No	FAC	Hydrophytic			
-	10	= Total C	over	Vegetation	as X	No	
% Bare Ground in Herb Stratum5 Remarks:				rieseitt: 16		140	_

Profile Desc	cription: (Describ	e to the depth	n needed to docu	ment the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature	1		- .	D
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 3/1	100			·		Clay	
				_				
								_
	oncentration, D=D					d Sand G		on: PL=Pore Lining, M=Matrix.
	Indicators: (App	licable to all L	_				_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma	, ,			k (A9) (LRR I, J)
. —	pipedon (A2) istic (A3)			Redox (S5	•			irie Redox (A16) (LRR F, G, H)
	en Sulfide (A4)			d Matrix (S Mucky Mir	,			ace (S7) (LRR G) s Depressions (F16)
	d Layers (A5) (LR f	R F)		Gleyed Ma			_	d outside of MLRA 72 & 73)
	uck (A9) (LRR F, G	,		ed Matrix (Vertic (F18)
	d Below Dark Surf			Dark Surfa			_	nt Material (TF2)
Thick Da	ark Surface (A12)		Deplete	ed Dark Su	ırface (F7)		Very Shal	low Dark Surface (TF12)
	/lucky Mineral (S1)			Depressio	, ,			plain in Remarks)
	Mucky Peat or Pea	` ' ` '	· · —	ains Depre	,	,		nydrophytic vegetation and
5 cm IVIU	ucky Peat or Peat	(S3) (LRR F)	(IVII	RA 72 & 7	/3 Of LRR	(H)		ydrology must be present, sturbed or problematic.
Restrictive	Layer (if present)	•					uniess dis	numbed of problematic.
Type:	_ayo. (p. 000)							
, , <u> </u>	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:			<u> </u>				,	
No redox	x features; T	inn clay,	occasionally	floode	ed is na	ationally	y listed hydr	ic soil; naturally dark soil
LIVEROLO	OV							
HYDROLO								
_	drology Indicator							
	cators (minimum o	f one required;						Indicators (minimum of two required)
	Water (A1)		Salt Crus		(=)		_	e Soil Cracks (B6)
ı 📻 🐧	ater Table (A2)		_	vertebrate	. ,			ly Vegetated Concave Surface (B8)
Saturation	` '			Sulfide O			`	ge Patterns (B10)
	larks (B1)			on Water 1				ed Rhizospheres on Living Roots (C3)
1 1 1	nt Deposits (B2)			Rhizosphe		ing Roots		re tilled)
1 1 1	posits (B3)			not tilled)		1\		h Burrows (C8)
1 1 -	at or Crust (B4) posits (B5)			of Reduce Surface (+)	_	ion Visible on Aerial Imagery (C9) rphic Position (D2)
	on Visible on Aeria	al Imagary (R7)		plain in Re				eutral Test (D5)
	stained Leaves (B9		Other (Ex	piairi iri Ke	emarks)			leave Hummocks (D7) (LRR F)
Field Obser	`	7						icave Hammocks (D7) (ERRT)
Surface Wat		Yes N	o X Depth (ir	iches).				
Water Table			o X Depth (ir					
Saturation P			o X Depth (ir				and Hydrology P	resent? Yes NoX
(includes car	oillary fringe)							105 110
Describe Re	corded Data (strea	am gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
l								









Section Section Section Section Township Ranges Section Section Township Ranges Section Sect	Project/Site: Lake Ralph Hall Supplemental JD		City/Co	ounty: L	adonia/F	annin	Sampling	g Date: 6/2/20	17
Lacial relief (concave, convex, none); Concave Slope (%); C-1%	Applicant/Owner: Upper Trinity Regional Water District								
Lacia relief (concave, convex, none); Concave Slope (%); 0-17%	Investigator(s): Jason Voight, Andrew Sample		Section	n, Town	ıship, Ra	nge:			
Design (LRR): Southwest Praintes						=		Slope (%)): <u>0-1%</u>
May Unit Name:									
re climatic / hydrologic conditions on the site typical for this time of year? Yes X No (If no, explain in Remarks.) re Vegetation Soil or Hydrology agignificantly disturbed? Are Normal Circumstances' present? Yes X No re Vegetation or Soil X or Hydrology naturally problematic? (If needed, explain any answers in Remarks.) ### Vegetation Present? Yes No X within a Wettand? Yes No X Wettand Hydrology Present? Or Son Yes No X within a Wettand? Yes No X within a Wettand? Yes No X Wettand Hydrology Present? Yes No X within a Wettand? Yes No X Wettand Hydrology Present? Yes No X Wettand Hydrology Present? Yes No X within a Wettand? Yes No X Wettand Hydrology Present? Yes No X Wettand Hydrology Present? Yes No X within a Wettand? Yes No X Wettand Hydrology Present? Yes No X No X Wettand Hydrology Present? Yes No X No X No X No X No X No X No X No									
re VegetationSoil or Hydrology naturally problematic?									
Soling X									No
Hydrophytic Vegetation Present? Yes No X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Within a Wetland? Yes No X X Yes No X X Within a Wetland? Yes No X X Yes N									
Hydric Soil Present? Yes									es, etc.
Hydric Soil Present? Yes									
No X N	Hydric Soil Present? Yes	No X			-		No	Х	
Heavy storms the previous day; depressional area associated with former channel scar; not hydraulically connected to any existing stream channel **EGETATION - Use scientific names of plants.** Tree Stratum (Plot size; 700 sq ft	Wetland Hydrology Present? Yes	No X		Within	a wenai	103			
Provide the composition of the stratum (Plot size: 700 sq ft % Cover 1 Faxinus pennsylvanica 10 No FAC 10 Faxinus pennsyl							_		
### Stratum (Plot size: 700 sq ft					ciated	with former chan	nel sc	ar; not	
Absolute	hydraulically connected to any existin	g stream	chan	nnel					
Absolute	VEGETATION – Use scientific names of pla	ants.							
Fraxinus pennsylvanica	-		Domii	nant Ir	dicator	Dominance Test work	sheet:		
2. Celtis laevigata 3.									
Total Number of Dominant Species Across All Strata: 3 (B)							or FAC	1	(A)
Species Across All Strata: 3 (B)					AC				- (7.9
Total Cover Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)								3	(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft 1, Celtis laevigata 5 No FAC FAC That Are OBL, FACW, or FAC: 33.3 (A/B)	4.	70	- Total	l Cover		·			- (/
Prevalence Index worksheet: Total % Cover of: Multiply by:	· · · · · · · · · · · · · · · · · · ·		- 10141	ii Oovei				33.3	(A/B)
Total % Cover of:	1. Celtis laevigata	5	No	<u>F</u>	AC	Provalence Index wer	kehooti		
A								Multiply by:	
Factor F						-			
Section Factor									
Herb Stratum (Plot size: 450 sq ft 1. Elymus virginicus 5 No FAC 2. Amaranthus tuberculatus 8 No FAC 3. Ambrosia trifida 4. Campsis radicans 5. Toxicodendron radicans 6. Erigeron annuus 7. 8. 9. 10. Woody Vine Stratum (Plot size: 450 sq ft 1. Parthenocissus quinquefolia 2. No FAC Woody Vine Stratum (Plot size: 450 sq ft 1. Parthenocissus quinquefolia 2. No FAC Was a prevalence Index = B/A = 3.3 FACU Species 45	0		- Total	I Cover		FAC species 105	x:	3 = 315	_
2. Amaranthus tuberculatus 3. Ambrosia trifida 4. Campsis radicans 5. Toxicodendron radicans 6. Erigeron annuus 7. 8. 9. 10. Woody Vine Stratum (Plot size: 450 sq ft 1. Parthenocissus quinquefolia 1. Parthenocissus quinquefolia 2. Amaranthus tuberculatus 8. No FAC Prevalence Index = B/A = 3.3 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ 4 - Morphological Adaptations¹ (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation¹ (Explain) 1 - Parthenocissus quinquefolia 5 No FACU 2 - Total Cover Hydrophytic Vegetation¹ (Explain) 1 - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic. Hydrophytic Vegetation Present? 1 - Rapid Test for Hydrophytic Vegetation 1 - Rapid Test for Hydrophytic	Herb Stratum (Plot size: 450 sq ft		- 10141	ii Oovei		FACU species 45	x	4 = 180	_
3. Ambrosia trifida 4. Campsis radicans 5. Toxicodendron radicans 6. Erigeron annuus 7.									
4. Campsis radicans 20 Yes FACU 5. Toxicodendron radicans 20 Yes FACU 6. Erigeron annuus 20 No FACU 7. 8. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9. 9.						Column Totals: 150	(A)) 495	(B)
Second problematic Hydrophytic Vegetation Indicators: Second problematic Hydrophy						Prevalence Index	= B/A =	3.3	
6. Erigeron annuus 2 No FACU 7. 8. 9.									
7. 8. 9. 10. Woody Vine Stratum (Plot size: 450 sq ft) 1. Parthenocissus quinquefolia 2. 5 No FACU No FAC No FAC 10 = Total Cover No FAC No FAC Hydrophytic Vegetation Yes NoX No X						1 - Rapid Test for I	- lydrophyt	ic Vegetation	
8						2 - Dominance Tes	t is >50%	1	
9						3 - Prevalence Inde	x is ≤3.0 ¹	1	
10						4 - Morphological A	daptation	ns ¹ (Provide su	pporting
Woody Vine Stratum (Plot size: 450 sq ft 1 Parthenocissus quinquefolia 5 No FACU 2									
1. Parthenocissus quinquefolia 5 No FACU 2. 5 No FAC 10 = Total Cover Wegetation Present? Yes No X No YAC Hydrophytic Vegetation Present? Yes No X	450 %	65	= Total	l Cover		I		, ,	,
2		5	No	_	ΔΟΙΙ				must
% Bare Ground in Herb Stratum 35 Total Cover Present? Yes No X							<u>.</u>		
% Bare Ground in Herb Stratum 35 Present? Yes No X						Vegetation			
Remarks:	% Bare Ground in Herb Stratum 35		- 10141	. OUVEI		Present? Ye	s	No X	

Profile Desc	cription: (Describ	e to the depth	needed to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)
Depth	Matrix			x Features	-		-	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks
0-18	10 YR 2/1	100					Clay	
				_ _	_ _			
	oncentration, D=D					d Sand Gr		on: PL=Pore Lining, M=Matrix.
	Indicators: (Appl	icable to all L					_	Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma	, ,			k (A9) (LRR I, J)
. —	pipedon (A2) istic (A3)			Redox (S5 d Matrix (S	•		_	irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
	en Sulfide (A4)			Mucky Mir	,			ns Depressions (F16)
	d Layers (A5) (LRF	R F)		Gleyed Ma			-	d outside of MLRA 72 & 73)
	uck (A9) (LRR F, G		Deplete	ed Matrix (I	=3)			Vertic (F18)
	d Below Dark Surfa	ace (A11)	_	Dark Surfa	. ,			nt Material (TF2)
_	ark Surface (A12) ⁄lucky Mineral (S1)			ed Dark Su Depressio	, ,			low Dark Surface (TF12) plain in Remarks)
	Mucky Peat or Pea			ains Depre	. ,	16)	 · · ·	nydrophytic vegetation and
	ucky Peat or Peat (` , ` .		RA 72 & 7	•	•		/drology must be present,
		, , ,	,			,		turbed or problematic.
Restrictive	Layer (if present):							
Type:								
Depth (in	ches):						Hydric Soil Pre	esent? Yes NoX
Remarks:								
No rodov	, footuros. T	المام مامانا	بالمعمنمممي	floodo	d io no	stion all	u liated budge	io ocile poternolle donk ocil
ino redox	k realures; r	inn clay,	occasionally	noode	a is na	alionali	y iistea riyar	ic soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicator	s:						
_	cators (minimum o		check all that app	ly)			Secondary I	Indicators (minimum of two required)
	Water (A1)		☐ Salt Crus					e Soil Cracks (B6)
	ater Table (A2)			vertebrate	s (B13)			ly Vegetated Concave Surface (B8)
Saturation	on (A3)		_ `	Sulfide O	. ,			ge Patterns (B10)
☐ Water M	larks (B1)		Dry-Seas	on Water T	able (C2)		Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	res on Liv	ing Roots	(C3) (whe	re tilled)
│	posits (B3)		(where	not tilled)			Crayfisl	h Burrows (C8)
1 1 -	at or Crust (B4)			of Reduce		1)		ion Visible on Aerial Imagery (C9)
	posits (B5)			k Surface (rphic Position (D2)
	on Visible on Aeria		Other (Ex	plain in Re	marks)			eutral Test (D5)
	tained Leaves (B9)					Frost-H	eave Hummocks (D7) (LRR F)
Field Obser		V N	X Described	-1>				
Surface Wat			o X Depth (ir					
Water Table			o X Depth (ir				am al I lando - 1 5	X
Saturation P (includes car		resN	o X Depth (ir	icnes):		_ vveti	and Hydrology Pi	resent? Yes No _X
	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
İ								











Project/Site: Lake Ralph Hall Supplemental JD	(City/Coun	ty: Ladonia/F	annin	Sampling Date: 6/2/2017	
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP585	
Investigator(s): Jason Voight, Andrew Sample	:			nge:		
Landform (hillslope, terrace, etc.): Valley		Local reli	ef (concave, o	convex, none): Concave	Slope (%): <u>0</u>)-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	5207		Long: -95.9732	Datum: NAD8	33
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for thi						
Are Vegetation, Soil, or Hydrologys					present? Yes X No	
Are Vegetation, SoilX _, or Hydrology r				eded, explain any answe		
SUMMARY OF FINDINGS – Attach site map				ocations, transects	, important features,	, etc.
Hydrophytic Vegetation Present? Yes X N	10	la d	the Commission	A		
Hydric Soil Present? Yes X	lo		the Sampled thin a Wetlar		No	
Wetland Hydrology Present? Yes X	lo		umi a weda	103		
Remarks:						
Heavy storms the previous day; depres				with former chan	inel scar; not	
hydraulically connected to any existing	stream	chann	el			
VEGETATION – Use scientific names of plan	nts.					
700 4	Absolute		nt Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 700 sq ft 1. Fraxinus pennsylvanica	% Cover 50	Species Yes	? Status FAC	Number of Dominant Sp		
Celtis laevigata	15	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	2	(A)
3. Ulmus crassifolia	5	No	FAC			,
4				Total Number of Domin Species Across All Stra		(B)
	70	= Total C	over	Percent of Dominant Sp	necies	
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW,		(A/B)
1. Celtis laevigata	5	No	FAC	Prevalence Index wor	ksheet:	
Fraxinus pennsylvanica Ulmus crassifolia					Multiply by:	
					x 1 =	
4					x 2 =	
J	5	= Total C	over	FAC species	x 3 =	
Herb Stratum (Plot size: 450 sq ft)				FACU species		
1. Toxicodendron radicans	5	No No	FACU		x 5 =	
Viola missouriensis Ambrosia trifida	- 2 8	No No	FACW FAC	Column Totals:	(A)	(B)
o			- FAC	Prevalence Index	= B/A =	_
4				Hydrophytic Vegetation	on Indicators:	
5				l 💳	Hydrophytic Vegetation	
7.				2 - Dominance Tes		
8.				3 - Prevalence Inde		
9				4 - Morphological A	Adaptations ¹ (Provide suppo s or on a separate sheet)	orting
10					phytic Vegetation ¹ (Explain))
West Was Obstacle (Distains 450 sq.ft	15	= Total C	over	-		
Woody Vine Stratum (Plot size: 450 sq ft) 1 Toxicodendron radicans/Campsis radicans	5/5	No	FACU/FACU	be present, unless distu	il and wetland hydrology mu urbed or problematic.	JSI
2 Smilax bona-nox	5	No	FACU	Hydrophytic		
	15	= Total C	over	Vegetation	V	
% Bare Ground in Herb Stratum 85				Present? Ye	sX No	
Remarks:						·

Profile Desc	ription: (Describe	to the dep	th needed to docur	nent the i	indicator	or confirr	n the absence of	indicators.)
Depth	Matrix			x Feature			_	
(inches)	Color (moist)	%	Color (moist)	<u>%</u>	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 2/1	95	10 YR 4/6	5	C	M	Clay	
	-							<u> </u>
·			-					
								<u>. </u>
· -								
								_
			=Reduced Matrix, CS			d Sand G		ion: PL=Pore Lining, M=Matrix.
_		cable to all	LRRs, unless other				_	r Problematic Hydric Soils ³ :
Histosol	. ,			Gleyed Ma				ck (A9) (LRR I, J)
	oipedon (A2)			Redox (S5				airie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (S			=	face (S7) (LRR G)
	n Sulfide (A4) d Layers (A5) (LRR	E)		Mucky Mir Gleyed Ma			_	ns Depressions (F16) H outside of MLRA 72 & 73)
	ick (A9) (LRR F, G ,			d Matrix (_ `	Vertic (F18)
	d Below Dark Surfac			Dark Surfa	,			ent Material (TF2)
	ark Surface (A12)	()	_		ırface (F7)			illow Dark Surface (TF12)
	lucky Mineral (S1)			Depressio	, ,			xplain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR (3, H) 🔲 High Pla	ains Depre	essions (F	16)	³ Indicators of	hydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)	wetland h	ydrology must be present,
							unless di	sturbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (inc	ches):						Hydric Soil Pr	resent? Yes X No
Remarks:								
Redox fe	atures presen	nt; Tinn d	clay, occasion	ally floo	oded is	nation	ally listed hy	dric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators	:						
Primary India	cators (minimum of	one require	d; check all that appl	y)			Secondary	Indicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surfac	e Soil Cracks (B6)
High Wa	iter Table (A2)		Aquatic In		s (B13)			ely Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Draina	ge Patterns (B10)
Water M	arks (B1)		Dry-Seaso	n Water 1	Table (C2)		Oxidiz	ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (whe	ere tilled)
Drift Dep	oosits (B3)		(where i	not tilled)			Crayfis	sh Burrows (C8)
Algal Ma	at or Crust (B4)		Presence	of Reduce	ed Iron (C4	!)	Satura	tion Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		Thin Muck	Surface ((C7)		Geom	orphic Position (D2)
Inundation	on Visible on Aerial	Imagery (B	7) 🔲 Other (Exp	olain in Re	emarks)		☐ FAC-N	leutral Test (D5)
☐ Water-S	tained Leaves (B9)						Frost-l	Heave Hummocks (D7) (LRR F)
Field Obser	vations:							
Surface Water	er Present?	res .	No X Depth (in	ches):				
Water Table			No X Depth (in					
Saturation P			No X Depth (in				land Hydrology F	Present? Yes X No No
(includes cap	oillary fringe)							195 <u> </u>
Describe Re	corded Data (strean	n ga uge, m	onitoring well, aerial	ohotos, pr	evious ins	pections),	, if available:	
Remarks:								







Project/Site: Lake Ralph Hall Supplemental JD	(City/Count	y: Ladonia/F	annin	Sampling Date: 5/31/26	017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP 62	24
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local relie	ef (concave,	convex, none): Concave	Slope (%)): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	16309		Long: <u>-95.91971</u>	Datum: NA	4D83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology	significantly	disturbed?	Are '	'Normal Circumstances" p	present? Yes X	۷o
Are Vegetation, Soil _x, or Hydrology	naturally pro	blematic?	(If ne	eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showing	sampli	ng point l	ocations, transects	s, important feature	es, etc.
Hydrophytic Vegetation Present? Yes X	No	le t	he Sampled	I Area		
Hydric Soil Present? Yes X	No		hin a Wetlar		No	
Wetland Hydrology Present? Yes X Remarks:	No					
depressional area associated with fo	rmer chan	nel sca	ar; not hy	draulically conne	ected to any exis	ting
stream channel			, ,	,	•	J
VEGETATION – Use scientific names of pl	ante					
VEGETATION – Ose scientific fiames of pr	Absolute	Dominar	nt Indicator	Dominance Test work	rsheet:	
Tree Stratum (Plot size: 700 sq ft)			Status	Number of Dominant S		
1. Fraxinus pennsylvanica	65	Yes	FAC	That Are OBL, FACW,	•	(4)
2. Celtis laevigata		No No	FAC	(excluding FAC-):	<u>.</u>	_ (A)
3. Ulmus crassifolia		No	FAC	Total Number of Domin Species Across All Stra	4	(B)
4	80	Total Co				_ (D)
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total Co	over	Percent of Dominant S That Are OBL, FACW,		(A/B)
1. Ulmus crassifolia	5	No	FAC			_ (/ (/ 2/)
2. Celtis laevigata	5	No	FAC	Prevalence Index wor		
3				Total % Cover of: OBL species 12	$\frac{\text{Multiply by:}}{\text{x 1 = } \frac{12}{}}$	
4				FACW species 8		_
5	4.0				x 3 = 270	
Herb Stratum (Plot size: 450 sq ft)	10	= Total Co	over	FACU species		_
1. Carex crus-corvi	12	No	OBL	UPL species	x 5 =	
2. Ptilimnium nuttallii	8	No	FACW	Column Totals: 110	(A) <u>298</u>	(B)
3				Prevalence Index	- Β/Δ _ 2.71	
4				Hydrophytic Vegetation	<u></u>	
5					Hydrophytic Vegetation	
6				2 - Dominance Tes		
7				✓ 3 - Prevalence Index	ex is ≤3.0 ¹	
8 9				4 - Morphological	Adaptations ¹ (Provide su	pporting
10					s or on a separate sheet	
	0.0	= Total Co	over	Problematic Hydro	phytic Vegetation ¹ (Expla	ain)
Woody Vine Stratum (Plot size: 450 sq ft) 1				¹ Indicators of hydric so be present, unless dist	il and wetland hydrology urbed or problematic.	must
2				Hydrophytic		
20		= Total Co		Vegetation	a X Na	
% Bare Ground in Herb Stratum 80				Present? Ye	es X No	
Remarks:						

Profile Des	cription: (Describe	to the dep	oth needed to docum	nent the	indicator	or confir	m the absence	e of indicators.)
Depth	Matrix			x Feature		2	_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
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	M	Clay	
	-		-					· ·
				·	_		_	·
				·	_			·
							_	
							_	
¹ Type: C=C	oncentration. D=Der	oletion. RM	=Reduced Matrix, CS	S=Covere	ed or Coate	ed Sand C	Grains. ² Lo	ocation: PL=Pore Lining, M=Matrix.
			LRRs, unless other					s for Problematic Hydric Soils ³ :
Histosol	(A1)		☐ Sandy C	Sleyed M	latrix (S4)		☐ 1 cm	Muck (A9) (LRR I, J)
	pipedon (A2)			Redox (S	, ,			t Prairie Redox (A16) (LRR F, G, H)
Black H	istic (A3)		Stripped	d Matrix ((S6)		Dark	Surface (S7) (LRR G)
	en Sulfide (A4)			-	ineral (F1)		_	Plains Depressions (F16)
	d Layers (A5) (LRR				Matrix (F2)		`	RR H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G ,			d Matrix	. ,			ced Vertic (F18)
	d Below Dark Surfac	ce (A11)	_		face (F6)			Parent Material (TF2)
	ark Surface (A12) Mucky Mineral (S1)			o Dark S Depressio	ons (E8))		Shallow Dark Surface (TF12) (Explain in Remarks)
	Mucky Peat or Peat	(S2) (I RR			ressions (F	16)		s of hydrophytic vegetation and
	ucky Peat or Peat (S				73 of LRF			nd hydrology must be present,
	aony i our or i our (e	,, (=)	(,		s disturbed or problematic.
Restrictive	Layer (if present):							·
Type:								
Depth (in	ches):						Hydric Soi	il Present? Yes X No
Remarks:								
Redox fe	atures observ	ed; Tinn	ı clay, occasior	nally flo	ooded is	s natio	nally listed	hydric soil; naturally dark soil
HYDROLO	ACV							
-	drology Indicators			,			0	
	-	one require	d; check all that apply	-				dary Indicators (minimum of two required)
	Water (A1)		Salt Crust				_	rface Soil Cracks (B6)
	ater Table (A2)		Aquatic Inv					arsely Vegetated Concave Surface (B8)
Saturati			Hydrogen					ainage Patterns (B10)
	larks (B1)		☐ Dry-Seaso					idized Rhizospheres on Living Roots (C3)
111	nt Deposits (B2)		Oxidized R			ing Roots		where tilled)
	posits (B3)		(where r					ayfish Burrows (C8)
111	at or Crust (B4)		Presence			4)		turation Visible on Aerial Imagery (C9)
	posits (B5)		Thin Muck					comorphic Position (D2)
	on Visible on Aerial	Imagery (B	7) U Other (Exp	olain in R	emarks)			C-Neutral Test (D5)
	Stained Leaves (B9)						<u></u> Fro	ost-Heave Hummocks (D7) (LRR F)
Field Obser			v					
Surface Wat			No X Depth (inc					
Water Table			No X Depth (inc					
Saturation P		Yes	No X Depth (inc	ches):		Wet	tland Hydrolog	gy Present? Yes X No
(includes ca	pillary fringe)	n dalide m	onitoring well, aerial p	photos n	revious ins	nections)) if available:	
Describe Re	oordou Dala (Siledii	ıı gauge, III	ormorning well, aelidi k	σποιόδ, μ	novious iiis	,pccii0113)	,, ii avaliabl e .	
Remarks:								
	onal area con	ooiotod	with former of	hanna	d coor			
uepressi	orial alea ass	ocialed	with former c	ııaıııe	o Sudi			







Project/Site: Lake Ralph Hall Supplemental JD		City/Coun	nty: Ladonia/F	annin	Sampling	g Date: 6/2/20	17
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling	Point: WP62	6
Investigator(s): Jason Voight, Andrew Sample				nge:			
Landform (hillslope, terrace, etc.): Valley				=		Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies							
Soil Map Unit Name: Tinn Clay, Occasionally flooded				NWI classification: none			
Are climatic / hydrologic conditions on the site typical for the							
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"		Yes X	No
Are Vegetation, SoilX, or Hydrology				eeded, explain any answe			
SUMMARY OF FINDINGS – Attach site map							es, etc.
Hydrophytic Vegetation Present? Yes X	No						
Hydric Soil Present? Yes X	No		the Sampled thin a Wetlar		No_		
Wetland Hydrology Present? Yes X	No	W1	uiiii a vveuai	id: Tes			
Remarks:							
Heavy storms the previous day; depre				with former char	nel sca	ar; not	
hydraulically connected to any existing	g stream	chann	el				
VEGETATION – Use scientific names of pla	nts.						
<u>-</u>	Absolute	Domina	nt Indicator	Dominance Test work	sheet:		
Tree Stratum (Plot size: 700 sq ft)			? Status	Number of Dominant S	pecies		
1. Fraxinus pennsylvanica	45	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	2	(A)
Celtis laevigata Ulmus crassifolia	<u>20</u> 5	Yes No	FAC FAC				_ (/\)
			170	Total Number of Domir Species Across All Stra		2	(B)
4	70	= Total C	'ovor				_ (5)
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total C	ovei	Percent of Dominant S That Are OBL, FACW,		100	(A/B)
1. Celtis laevigata	5	No	FAC				_
2. Fraxinus pennsylvanica	5	No	FAC	Prevalence Index wor Total % Cover of:		Multiply by:	
3				OBL species			
4				FACW species			
5	10	Total C		FAC species			
Herb Stratum (Plot size: 450 sq ft)		= Total C	over	FACU species			_
1. Toxicodendron radicans	5	No	FACU	UPL species			
2. Viola missouriensis	10	No	FACW	Column Totals:	(A)		(B)
3. Ambrosia trifida	_ 3	No	FAC	Prevalence Index	- Β/Δ -		
4. Elymus virginicus	2	No	FAC	Hydrophytic Vegetation			
5				1 - Rapid Test for I			
6				2 - Dominance Tes	st is >50%		
7				3 - Prevalence Ind	ex is ≤3.0 ¹		
8				4 - Morphological	Adaptation	s ¹ (Provide su	pporting
10.				data in Remark			
10.		= Total C	over	Problematic Hydro	pnytic veg	jetation (Expi	ain)
Woody Vine Stratum (Plot size: 450 sq ft)				¹ Indicators of hydric so be present, unless dist			must
1. Toxicodendron radicans		No	FACU	be present, unless dist	Jibea oi pi	iobiematic.	
2. Smilax bona-nox		No	FACU_	Hydrophytic Vegetation			
% Bare Ground in Herb Stratum 80	10	= Total C	over		s X	No	
Remarks:							

Profile Desc	cription: (Describe	to the dept	th needed to docu	ment the i	ndicator	or confirm	m the absence of	indicators.)
Depth	Matrix			ox Features		. ?	_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-18	10 YR 2/1	95	10 YR 4/6	_ 5	C	M	Clay	
							·	
	oncentration, D=De					d Sand G	rains. ² Location	on: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Appli	cable to all	LRRs, unless othe	rwise note	ed.)		Indicators for	r Problematic Hydric Soils ³ :
Histosol	. ,		Sandy	Gleyed Ma	trix (S4)			ck (A9) (LRR I, J)
	pipedon (A2)			Redox (S5	•		_	airie Redox (A16) (LRR F, G, H)
	istic (A3)			d Matrix (S			_	ace (S7) (LRR G)
	en Sulfide (A4)	- \		Mucky Mir			_	ns Depressions (F16)
	d Layers (A5) (LRR uck (A9) (LRR F, G ,	,		Gleyed Ma ed Matrix (I			_ `	H outside of MLRA 72 & 73) Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	(*****)	_	ed Dark Su				llow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)		✓ Redox	Depression	ns (F8)		Other (Ex	plain in Remarks)
	Mucky Peat or Peat	. , .		ains Depre	•	,		hydrophytic vegetation and
5 cm Mu	ucky Peat or Peat (S	S3) (LRR F)	(ML	RA 72 & 7	73 of LRR	H)		ydrology must be present,
Destrictive	l aver (if present).						unless dis	sturbed or problematic.
	Layer (if present):							
Type:	ches):						Hudria Sail Br	esent? Yes X No
Remarks:	cnes)						nyuric 30ii Pi	esentr res NO
Remarks.								
Redox fe	atures preser	nt: Tinn o	lav. occasion	ally floo	oded is	nation	ally listed hyd	dric soil; naturally dark soil
HYDROLO	GY							
Wetland Hy	drology Indicators	: :						
Primary India	cators (minimum of	one required	l; check all that app	ly)			Secondary	Indicators (minimum of two required)
☐ Surface	Water (A1)		Salt Crust	t (B11)			Surface	e Soil Cracks (B6)
High Wa	ater Table (A2)		Aquatic Ir	vertebrate	s (B13)		✓ Sparse	ly Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainag	ge Patterns (B10)
Water M	larks (B1)		Dry-Seas	on Water T	able (C2)		Oxidize	ed Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized	Rhizosphe	res on Livi	ng Roots	(C3) (whe	re tilled)
☐ Drift Dep	posits (B3)		(where	not tilled)			Crayfis	h Burrows (C8)
H Algal Ma	at or Crust (B4)			of Reduce		.)		tion Visible on Aerial Imagery (C9)
	oosits (B5)			k Surface (orphic Position (D2)
	on Visible on Aerial		') <u> </u>	plain in Re	marks)			eutral Test (D5)
	tained Leaves (B9)						Frost-H	Heave Hummocks (D7) (LRR F)
Field Obser			V					
Surface Wat			No X Depth (ir					
Water Table			No X Depth (ir					V
Saturation P		Yes 1	No X Depth (ir	nches):		_ Wet	land Hydrology P	resent? Yes X No No
(includes car Describe Re	olliary fringe) corded Data (strear	m gauge, mo	nitoring well, aerial	photos, pr	evious ins	nections).	if available:	
20001120110	20.000	gaage,e	ege, ded.	p. 10100, p.	01.0000	,	, αταιιασίοι	
Remarks:								









Project/Site: Lake Ralph Hall Supplemental JD	(City/Cou	nty: Ladonia/F	annin	Sampling Date: 5/31/2017
Applicant/Owner: Upper Trinity Regional Water District					Sampling Point: WP 709
Investigator(s): Jason Voight, Andrew Sample	;	Section,	Township, Ra	inge:	
Landform (hillslope, terrace, etc.): Valley					Slope (%): 0-1%
Subregion (LRR): Southwest Prairies					
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi	
Are climatic / hydrologic conditions on the site typical for t					
Are Vegetation, Soil, or Hydrology					
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map					
Hydrophytic Vegetation Present? Yes _x Hydric Soil Present? Yes _x Wetland Hydrology Present? Yes _x Remarks:	No		the Sampled		No
depressional area associated with for stream channel	mer chan	nel sc	ar; not hy	draulically conne	ected to any existing
VEGETATION – Use scientific names of pla	ints.				
Tage Chapture (Diet sing, 700 sq ft	Absolute		ant Indicator	Dominance Test work	ksheet:
Tree Stratum (Plot size: 700 sq ft) 1. Fraxinus pennsylvanica	30	Yes	s? Status FAC	Number of Dominant S That Are OBL, FACW,	
2. Ulmus crassifolia	25	Yes	FAC	(excluding FAC-):	2 (A)
3. Celtis laevigata	15	No	FAC	Total Number of Domii	nant
4. Maclura pomifera	10	No	FACU	Species Across All Stra	0
Sapling/Shrub Stratum (Plot size: 700 sq ft)		= Total (Percent of Dominant S That Are OBL, FACW,	
Fraxinus pennsylvanica Maclura pomifera	<u>2</u>	No No	FAC FACU	Prevalence Index wo	rksheet:
			FACO		Multiply by:
3				OBL species 10	x 1 = 10
4 5				FACW species 5	x 2 = 10
o	7	= Total (Cover	FAC species 77	
Herb Stratum (Plot size: 450 sq ft)					x 4 = <u>60</u>
1. Carex crus-corvi		No	OBL		x 5 =
2. Viola missouriensis	$-\frac{2}{3}$	No	FACW	Column Totals: 107	(A) <u>311</u> (B)
Ptilimnium nuttallii Amaranthus tuberculatus		No No	FACW FAC	Prevalence Index	x = B/A = 2.91
"-				Hydrophytic Vegetati	on Indicators:
5				1 - Rapid Test for	Hydrophytic Vegetation
6 7				2 - Dominance Te	st is >50%
8				3 - Prevalence Ind	
9.					Adaptations ¹ (Provide supporting so or on a separate sheet)
10					ophytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft		= Total (I	oil and wetland hydrology must
1		= Total (Hydrophytic Vegetation Present? Ye	esx No
Remarks:					

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth	Matrix	Redox Features			_			
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Remarks
0-18	10 YR 3/1	80	10 YR 4/6	20	С	М	Clay	
						-		
								
-			-					
				_	_	_		
	-			- ·		-		
1- 0.0							21	
			=Reduced Matrix, C			ed Sand (: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless othe				_	Problematic Hydric Soils ³ :
Histosol	. ,				atrix (S4)			(A9) (LRR I, J) e Redox (A16) (LRR F, G, H)
Black His	ipedon (A2)			Redox (Sadd Matrix (_	e (S7) (LRR G)
	n Sulfide (A4)			,	ineral (F1)	١		Depressions (F16)
	Layers (A5) (LRR	F)		-	latrix (F2)		_	outside of MLRA 72 & 73)
	ck (A9) (LRR F, G ,			ed Matrix			Reduced Ve	•
	Below Dark Surfac			Dark Surf	. ,		_	Material (TF2)
Thick Da	rk Surface (A12)		Deplete	d Dark S	urface (F7	7)	Very Shallo	w Dark Surface (TF12)
_	ucky Mineral (S1)			Depression	. ,			ain in Remarks)
	lucky Peat or Peat (essions (l	,		drophytic vegetation and
5 cm Mu	cky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 &	73 of LR	R H)		rology must be present,
Dontaletius I	(if						unless distu	irbed or problematic.
_	ayer (if present):							
								V
	:hes):						Hydric Soil Pres	ent? Yes X No
Remarks:								
D. I. (11 . (1			and Paradia d	
Redox rea	atures promine	ent; i inr	n ciay, occasio	nally fi	ooaea	is natio	onaliy iisted nyd	ric soil, naturally dark soil
HYDROLO	ev.							
_	Irology Indicators:							
		one require	d; check all that appl					dicators (minimum of two required)
Surface \	Water (A1)		Salt Crust	(B11)				Soil Cracks (B6)
High Wa	ter Table (A2)		Aquatic In					Vegetated Concave Surface (B8)
Saturation	n (A3)		Hydrogen				☐ Drainage	Patterns (B10)
Water M	arks (B1)		Dry-Seaso		,	,		Rhizospheres on Living Roots (C3)
	t Deposits (B2)		Oxidized F	Rhizosph	eres on Li	ving Roots	s (C3) (where	tilled)
	osits (B3)		(where	not tilled)			Burrows (C8)
	t or Crust (B4)		Presence			(4)	Saturation	n Visible on Aerial Imagery (C9)
☐ Iron Dep	osits (B5)		H Thin Muck		` '			phic Position (D2)
	on Visible on Aerial	Imagery (B	7) U Other (Exp	plain in R	emarks)			tral Test (D5)
	ained Leaves (B9)						Frost-Hea	ave Hummocks (D7) (LRR F)
Field Observ				0				
Surface Water			No Depth (in					
Water Table	Present? Y	'es	No x Depth (in	ches):				
Saturation Pr	esent? Y		No Depth (in				tland Hydrology Pre	sent? Yes X No
(includes cap			:				\ :f = :=: = -	
Describe Red	corded Data (stream	ı gauge, m	onitoring well, aerial	pnotos, p	revious in	spections), ii avallable:	
Remarks:								
depression	onal area ass	ociated	with former c	hanne	l 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 Sar				P 801
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local reli	ief (concave,	convex, none): Concave	Slope	(%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies						
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology				'Normal Circumstances"		No
Are Vegetation, Soil x, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site ma						tures, etc.
Hydrophytic Vegetation Present? Yes _x					<u>· · · · · · · · · · · · · · · · · · · </u>	<u> </u>
Hydric Soil Present? Yes X			the Sampled		No	
Wetland Hydrology Present? Yes X Remarks:	No	WI	thin a Wetlar	id? fes	No	
depressional area associated with for	mer chan	nel sc	ar: not hv	draulically conne	ected to anv e	xistina
stream channel			, ,	,	,	3
VECETATION . Her estantific manner of mil						
VEGETATION – Use scientific names of plants		D	1P	I Danis Tankana		
Tree Stratum (Plot size: 700 sq ft)	Absolute % Cover		int Indicator Status	Dominance Test work Number of Dominant S		
1. Ulmus crassifolia	60	Yes	FAC	That Are OBL, FACW,	or FAC	
2. Fraxinus pennsylvanica	5	No	FAC	(excluding FAC-):	2	(A)
3. Maclura pomifera		No	FACU	Total Number of Domir	^	(5)
4. Celtis laevigata	2	No	FAC	Species Across All Stra	ata: <u>2</u>	(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	72	= Total C	Cover	Percent of Dominant S		(A /D)
1. Fraxinus pennsylvanica	2	No	FAC	That Are OBL, FACW,	OFFAC: 100%	(A/B)
2. Ulmus crassifolia	2	No	FAC	Prevalence Index wor		
3. Gleditsia triacanthos	2	No	FAC	Total % Cover of:		oy:
4. Maclura pomifera	2	No	FACU	1	x 1 = 70	
5	<u> </u>			FACW species 10 78	x 2 = 234	
Herb Stratum (Plot size: 450 sq ft)	8	= Total C	Cover		x = 4 = 36	
1. Carex crus-corvi	70	Yes	OBL	UPL species		
2. Ptilimnium nuttalli	10	No	FACW	Column Totals: 167		
3. Amaranthus tuberculatus	5	No	FAC			
4.				Prevalence Index		
5				Hydrophytic Vegetation		
6				2 - Dominance Tes	Hydrophytic Vegetati	on
7				3 - Prevalence Ind		
8					Adaptations ¹ (Provide	e supporting
9	 _			data in Remark	s or on a separate sh	neet)
10	05			Problematic Hydro	phytic Vegetation ¹ (E	Explain)
Woody Vine Stratum (Plot size: 450 sq ft)	00	= Total C	Cover	¹ Indicators of hydric so	il and wetland hydrol	ogy must
1. Campsis radicans	2	No	FACU	be present, unless dist		
2				Hydrophytic		
15	2	= Total C	Cover	Vegetation Ye	es X No	
% Bare Ground in Herb Stratum 15 Remarks:				riescht! fe	.5 NU	
remars.						

Profile Desc	ription: (Describe	to the dept	h needed to docum	nent the	indicator	or confirm	n the absence of i	indicators.)
Depth	Matrix		Redox	k Feature	s			•
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²		Remarks
0-18	10 YR 3/1	98	10 YR 4/6	2	С	М	Clay	
				-		-		
								_
	-							_
1		 .						
			Reduced Matrix, CS			ed Sand G		on: PL=Pore Lining, M=Matrix.
		able to all I	LRRs, unless other				_	Problematic Hydric Soils ³ :
Histosol	` '				atrix (S4)			k (A9) (LRR I, J)
	pipedon (A2)			ledox (S5				irie Redox (A16) (LRR F, G, H)
Black Hi	n Sulfide (A4)			Matrix (S	neral (F1)		_	ace (S7) (LRR G) s Depressions (F16)
	l Layers (A5) (LRR I	F)			atrix (F2)		_	outside of MLRA 72 & 73)
	ick (A9) (LRR F, G, I	,		d Matrix (_ `	Vertic (F18)
	d Below Dark Surfac			ark Surfa	,			nt Material (TF2)
Thick Da	ark Surface (A12)		Depleted	d Dark Su	urface (F7)	Very Shall	ow Dark Surface (TF12)
	lucky Mineral (S1)		_	epressio	. ,		Other (Exp	olain in Remarks)
	lucky Peat or Peat (, , ,	· · · —		essions (F	,		nydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(MLF	RA 72 &	73 of LRF	RH)		drology must be present,
B (1)							unless dis	turbed or problematic.
_	_ayer (if present):							
								Y
	ches):						Hydric Soil Pre	esent? Yes X No No
Remarks:								
Dodov for	aturaa abaamu	adı Tinn	alay, agaaaian	مال، داد	adad i	o notion	adly liated by	طعنو ممناه ممثل بحمالي طمعاد ممنا
Redox lea	atures observe	ea, rinn	ciay, occasion	ally lic	oded i	s natior	ially listed fly	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicators:							
			; check all that apply	٨			Secondary	ndicators (minimum of two required)
	Water (A1)	nie required	Salt Crust					Soil Cracks (B6)
	iter Table (A2)		Aquatic Inv		o (P12)			y Vegetated Concave Surface (B8)
			Hydrogen S					ge Patterns (B10)
Saturation	arks (B1)		Dry-Season					d Rhizospheres on Living Roots (C3)
	nt Deposits (B2)		Oxidized R					re tilled)
	oosits (B3)		(where n			ilig Roots		n Burrows (C8)
	at or Crust (B4)		Presence of			4)		ion Visible on Aerial Imagery (C9)
_	osits (B5)		Thin Muck		,	+)		rphic Position (D2)
	on Visible on Aerial	lmagary (P7			. ,			eutral Test (D5)
_	tained Leaves (B9)	iiiagery (b <i>i</i>) <u> </u>	iaiii iii ixe	erriai K5)			eave Hummocks (D7) (LRR F)
Field Observ	. ,							eave Hammooks (B1) (ERKT)
Surface Water		os N	No X Depth (inc	hes).				
			No X Depth (inc					
Water Table							land Hedrala me D	
Saturation Proceed (includes cape		es r	No X Depth (inc	nes):		weti	iand Hydrology Pr	resent? Yes X No
		gauge, mo	nitoring well, aerial p	hotos, pi	evious ins	spections),	if available:	
			·					
Remarks:								
	nnal area acc	ociated	with former ch	าลทกอ	l scar			
acpicasi	Jilai alba ass	Joialed	WIGH TOTTING! CI	iai ii l C	Joan			





Project/Site: Lake Ralph Hall Supplemental JD		City/County:	Ladonia/F	annin	Sampling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District				Sampling Point: WP 857	
Investigator(s): Jason Voight, Andrew Sample				inge:	
Landform (hillslope, terrace, etc.): Valley		Local relief	(concave,	convex, none): Concave	Slope (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	16282		_ Long: <u>-95.92099</u>	Datum: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific	
Are climatic / hydrologic conditions on the site typical fo					
Are Vegetation, Soil, or Hydrology					oresent? Yes X No
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answe	
SUMMARY OF FINDINGS - Attach site ma	ap showing	samplin	g point l	ocations, transects	s, important features, etc.
Hydrophytic Vegetation Present? Yes X	No	le the	e Sampled	ΙΛιοο	
Hydric Soil Present? Yes x	No		in a Wetlaı		No
Wetland Hydrology Present? Yes X Remarks:	_ No				
depressional area associated with fo	rmer chan	nel scar	; not hy	draulically conne	ected to any existing
stream channel				,	, 0
VEGETATION – Use scientific names of p	lante				
VEGETATION – Use scientific fiames of p	Absolute	Dominant	Indicator	Dominance Test work	rsheet:
Tree Stratum (Plot size: 700 sq ft)		Species?		Number of Dominant S	
1. Fraxinus pennsylvanica	50	Yes	FAC	That Are OBL, FACW,	or FAC
2. Ulmus crassifolia		No No	FAC	(excluding FAC-):	<u>1</u> (A)
3. Celtis laevigata	<u>10</u>	No No	FACU FACU	Total Number of Domin Species Across All Stra	4
4. Maclura pomifera		-		·	
Sapling/Shrub Stratum (Plot size: 700 sq ft)	10	= Total Cov	er	Percent of Dominant Sport Are OBL, FACW,	
1. Fraxinus pennsylvanica	5	No	FAC		
2				Prevalence Index wor	
3				Total % Cover of: OBL species 5	$ \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad \qquad $
4					x = 0 $x = 0$
5	-			FAC species 75	
Herb Stratum (Plot size: 450 sq ft	5	= Total Cov	er		x 4 = 28
1. Carex crus-corvi	5	No	OBL		x 5 = 0
2.				Column Totals: 87	
3				Prevalence Index	- B/Δ - 2.97
4				Hydrophytic Vegetation	
5					Hydrophytic Vegetation
6				2 - Dominance Tes	
7				✓ 3 - Prevalence Inde	ex is ≤3.0 ¹
8 9				4 - Morphological A	Adaptations ¹ (Provide supporting
10					s or on a separate sheet)
10.	_	= Total Cov		Problematic Hydro	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450 sq ft) 1. Campsis radicans	2	No	FACU	¹ Indicators of hydric soi be present, unless dist	il and wetland hydrology must urbed or problematic.
2.				Hydrophytic	
% Bare Ground in Herb Stratum 95		= Total Cov	er	Vegetation	esX No
Remarks:					

Profile Descr	ription: (Describe	to the dep	th needed to docur	nent the	indicator	or confir	rm the absence of in	dicators.)
Depth	Matrix		Redox Features			2	_	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²		Remarks
0-18	10 YR 3/1	90	10 YR 4/6	10	<u>C</u>	M	Clay	
				-				
			-	-		-		
					_			
				_		_		
				-	-			
1- 0.0							21	
			Reduced Matrix, CS			ed Sand (r: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless othe				_	Problematic Hydric Soils ³ :
Histosol (,				atrix (S4)			(A9) (LRR I, J) ie Redox (A16) (LRR F, G, H)
Black His	ipedon (A2)			Redox (S: d Matrix (_	ce (S7) (LRR G)
	n Sulfide (A4)			,	neral (F1)			Depressions (F16)
	Layers (A5) (LRR I	F)			latrix (F2)		_	outside of MLRA 72 & 73)
	ck (A9) (LRR F, G ,			d Matrix	. ,		Reduced Ve	•
	Below Dark Surfac		✓ Redox I	Dark Surf	ace (F6)			Material (TF2)
Thick Da	rk Surface (A12)		Deplete	d Dark S	urface (F7	')	Very Shallo	w Dark Surface (TF12)
	ucky Mineral (S1)			Depression	. ,			ain in Remarks)
	ucky Peat or Peat (· · · —		essions (l	,		drophytic vegetation and
5 cm Mud	cky Peat or Peat (S	3) (LRR F)	(ML	RA 72 &	73 of LR	R H)		rology must be present,
Dootsietive I	('f						unless distu	urbed or problematic.
_	ayer (if present):							
								V
	hes):						Hydric Soil Pres	ent? Yes X No
Remarks:								
Dada (a.			.1				and Paradia d	ele estimation de la company
Redox fea	itures observe	ea; iinn	ciay, occasion	nally fic	oaea	s natio	naliy listed nyd	ric soil; naturally dark soil
HYDROLOG	2V							
_	rology Indicators:							
		ne required	d; check all that appl					dicators (minimum of two required)
✓ Surface V	Vater (A1)		Salt Crust	(B11)				Soil Cracks (B6)
High Wat	er Table (A2)		Aquatic In					Vegetated Concave Surface (B8)
Saturatio	n (A3)		Hydrogen				☐ Drainage	Patterns (B10)
Water Ma	arks (B1)		Dry-Seaso		,	,		Rhizospheres on Living Roots (C3)
	t Deposits (B2)		Oxidized F	Rhizosphe	eres on Li	ving Roots	s (C3) (where	tilled)
☐ Drift Dep				not tilled				Burrows (C8)
	or Crust (B4)		Presence		`	4)	Saturatio	n Visible on Aerial Imagery (C9)
Iron Depo			H Thin Muck		` '			phic Position (D2)
	n Visible on Aerial	Imagery (B	7) <u> </u>	olain in R	emarks)			ıtral Test (D5)
	ained Leaves (B9)						Frost-Hea	ave Hummocks (D7) (LRR F)
Field Observ		.,		0				
Surface Wate			No Depth (in					
Water Table F	Present? Y	'es	No X Depth (in	ches):				
Saturation Pre		'es <u>X</u>	No Depth (in	ches):		We	tland Hydrology Pre	sent? Yes X No
(includes capi		aguag ma	onitoring well, aerial	nhotoo n	rovious in	on option o	\ if available:	
pescribe kec	orueu Data (Stream	ı yauye, m	Antoning well, aerial	ρποιός, ρ	revious in	apeciions,	j, ii availaDI C .	
Daws								
Remarks:								
depression	nal area ass	ociated	with former c	hanne	l scar			





Project/Site: Lake Ralph Hall Supplemental JD		City/Coun	nty: Ladonia/F	annin	Sampling Date: <u>5/31/2017</u>	7
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP 1146	3
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local reli	ief (concave,	convex, none): Concave	Slope (%): <u></u>	0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	1625		Long: <u>-95.92113</u>	Datum: NAD8	83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded						
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology					oresent? Yes X No	
Are Vegetation, SoilX, or Hydrology	naturally pro	blematic?	? (If ne	eded, explain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS – Attach site ma	ap showing	sampli	ing point l	ocations, transects	, important features	, etc.
Hydrophytic Vegetation Present? Yes X	No	le	the Sampled	Aroa		
Hydric Soil Present? Yes X	No		ithin a Wetlar		No	
Wetland Hydrology Present? Yes X Remarks:	No					
depressional area associated with fo	rmer chan	nel sc	ar not hy	draulically conne	ected to any existin	าต
stream channel	iiiioi onan	1101 00	ar, mot my	diddiiodiiy ooriile	otou to arry oxiotii	9
VEGETATION – Use scientific names of pl						
Tree Stratum (Plot size: 700 sq ft)	Absolute <u>% Cover</u>		int Indicator Status	Dominance Test work Number of Dominant S		
1. Fraxinus pennsylvanica	60	Yes	FAC	That Are OBL, FACW,	or FAC	
2. Maclura pomifera	10	No	FACU	(excluding FAC-):	2	(A)
3. Ulmus crassifolia	15	No	FAC	Total Number of Domin		
4. Celtis laevigata	5	No	FAC	Species Across All Stra	ata: <u>2</u> ((B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	90	= Total C	Cover	Percent of Dominant Sport That Are OBL, FACW,		(A/B)
1. Fraxinus pennsylvanica	5	No	FAC			(, (, D)
2. Celtis laevigata	2	No	FAC	Prevalence Index wor		
3				Total % Cover of: OBL species 25		-
4				· ·	x = 20 $x = 4$	-
5					x 3 = 276	-
Herb Stratum (Plot size: 450 sq ft)	7	= Total C	Cover		x = 48	-
1 Carex crus-corvi	10	No	OBL		x 5 = 0	•
2. Amaranthus tuberculatus	5	No	FAC	Column Totals: 131		(B)
3. Chasmanthium latifolium	2	No	FACU		2.60	
4. Viola missouriensis	2	No	FACW	Prevalence Index		
5. Lemna minor	15	Yes	OBL	Hydrophytic Vegetation	on Indicators: Hydrophytic Vegetation	
6				2 - Dominance Tes		
7				3 - Prevalence Inde		
8					Adaptations ¹ (Provide suppo	ortina
9		-		data in Remarks	s or on a separate sheet)	
10				Problematic Hydro	phytic Vegetation ¹ (Explain)	ı)
Woody Vine Stratum (Plot size: 450 sq ft)		= Total C		¹ Indicators of hydric soil be present, unless distri	il and wetland hydrology muurbed or problematic.	ust
1				, .	<u> </u>	
2		= Total C		Hydrophytic Vegetation	V	
% Bare Ground in Herb Stratum 66%		- 10tai 0	.0701	Present? Ye	sX No	
Remarks:				•		

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence o	f indicators.)
Depth Matrix Redox Features								
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²		Remarks
0-18	10 YR 3/1	80	10 YR 4/6	20	<u>C</u>	<u>M</u>	Clay	
	-				_			
					_	_		
1= 0.0			- IN () O					
	oncentration, D=De					ed Sand C		tion: PL=Pore Lining, M=Matrix.
	Indicators: (Applie	cable to all	_				_	or Problematic Hydric Soils ³ :
Histosol	• ,				atrix (S4)			resirie Pedey (A16) (LBB F. C. H)
	pipedon (A2) istic (A3)			Redox (S d Matrix (rairie Redox (A16) (LRR F, G, H) rface (S7) (LRR G)
	en Sulfide (A4)			,	ineral (F1)	١	=	ins Depressions (F16)
	d Layers (A5) (LRR	F)			fatrix (F2)	'	_	H outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,			ed Matrix			_ `	d Vertic (F18)
	d Below Dark Surface	,		Dark Surf	. ,			ent Material (TF2)
Thick D	ark Surface (A12)		Deplete	ed Dark S	urface (F7	7)	Very Sha	allow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)		✓ Redox	Depression	ons (F8)		Other (E	xplain in Remarks)
	Mucky Peat or Peat		· · · —		ressions (f hydrophytic vegetation and
5 cm Mi	ucky Peat or Peat (S	83) (LRR F)	(MI	-RA 72 &	73 of LR	R H)		hydrology must be present,
							unless d	listurbed or problematic.
	Layer (if present):							
Type:								V
Depth (in	ches):						Hydric Soil P	resent? Yes X No No
Remarks:								
D								
Redox fe	atures observ	ed; linn	clay, occasio	nally flo	ooded	is natio	nally listed h	ydric soil; naturally dark soil
HYDROLO	ACV							
-	drology Indicators							
_	cators (minimum of	one require						y Indicators (minimum of two required)
	Water (A1)		Salt Crus	t (B11)				ce Soil Cracks (B6)
	ater Table (A2)		Aquatic Ir					ely Vegetated Concave Surface (B8)
Saturati			Hydroger		, ,			age Patterns (B10)
Water N	/larks (B1)		☐ Dry-Seas		,	•		zed Rhizospheres on Living Roots (C3)
1 1 1	nt Deposits (B2)		Oxidized	Rhizosph	eres on Li	ving Roots		ere tilled)
	posits (B3)		_ `	not tilled	•			sh Burrows (C8)
	at or Crust (B4)		Presence			(4)	_	ation Visible on Aerial Imagery (C9)
	posits (B5)		H Thin Muc		. ,			norphic Position (D2)
	on Visible on Aerial	Imagery (B	7) <u> </u>	plain in R	emarks)			Neutral Test (D5)
Water-S	Stained Leaves (B9)							Heave Hummocks (D7) (LRR F)
Field Obser				0	in all an			
Surface Wat			No Depth (ir					
Water Table	Present?	Yes	No X Depth (ir	nches):				
Saturation P	resent?	Yes X	No Depth (ir	nches):		We	tland Hydrology	Present? Yes X No No
(includes ca	pillary fringe)						\ :f ==: = = =.	
Describe Re	corded Data (stream	n gauge, mo	onitoring well, aerial	pnotos, p	revious in	spections)), if available:	
Remarks:								
depressi	onal area ass	sociated	with former of	hanne	l scar			
1								









Project/Site: Lake Ralph Hall Supplemental JD		City/Cou	nty: Ladonia/F	annin	Sampling Date: 5/31/2	2017
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP 1	334
Investigator(s): Jason Voight, Andrew Sample				nge:		
Landform (hillslope, terrace, etc.): Valley		Local re	lief (concave,	convex, none): Concave	Slope (%	o): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4619			Long: <u>-95.92107</u>	Datum: N	AD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded						
Are climatic / hydrologic conditions on the site typical fo						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" p		No
Are Vegetation, Soil X, or Hydrology				eeded, explain any answe	ers in Remarks.)	
SUMMARY OF FINDINGS - Attach site m	ap showing	ı sampl	ling point l	ocations, transects	s, important featur	es, etc.
Hydrophytic Vegetation Present? Yes X	No	le	the Sampled	I Aroa		
Hydric Soil Present? Yes x	No		rithin a Wetlar		No	
Wetland Hydrology Present? Yes X Remarks:	_ No					
depressional area associated with fo	ormer chan	nel so	ar; not hy	draulically conne	ected to any exis	sting
stream channel						
VEGETATION – Use scientific names of p	lants.					
	Absolute	Domina	ant Indicator	Dominance Test work	sheet:	
Tree Stratum (Plot size: 700 sq ft)	<u> </u>		s? Status	Number of Dominant S		
Fraxinus pennsylvanica Celtis laevigata	<u>30</u> 25	Yes Yes	FAC FAC	That Are OBL, FACW, (excluding FAC-):	or FAC 3	(A)
Ulmus crassifolia	20	Yes	FAC			_ ('')
4. Maclura pomifera		No	FACU	Total Number of Domin Species Across All Stra	^	(B)
4.		= Total 0		·		_ (/
Sapling/Shrub Stratum (Plot size: 700 sq ft)		_ rotar c	30101	Percent of Dominant S That Are OBL, FACW,		_ (A/B)
1. Celtis laevigata	10	No	FAC	Prevalence Index wor	rkshoot:	
2. Fraxinus pennsylvanica	10	No	FAC	Total % Cover of:		
3. Ulmus crassifolia	10	No	FAC		x 1 = 15	
4					x 2 = 4	
5	30	= Total 0	Cover	FAC species 110	x 3 = 330	
Herb Stratum (Plot size: 450 sq ft)		rotar c		FACU species 5	x 4 = 20	
1. Carex crus-corvi	15	No	OBL		x 5 = 0	
2. Amaranthus tuberculatus	5	No	FAC	Column Totals: 132	(A) <u>369</u>	(B)
3. Viola missouriensis	2	No	FACW	Prevalence Index	x = B/A = 2.8	
4				Hydrophytic Vegetation	on Indicators:	
5				1 - Rapid Test for I	Hydrophytic Vegetation	
6				2 - Dominance Tes	st is >50%	
8				3 - Prevalence Inde		
9				4 - Morphological A	Adaptations ¹ (Provide suss or on a separate shee	upporting
10.					phytic Vegetation ¹ (Exp	
450 #	22	= Total C	Cover	-		,
Woody Vine Stratum (Plot size: 450 sq ft) 1.				be present, unless distr	il and wetland hydrology urbed or problematic.	/ must
2.				Hydrophytic		_
78		= Total C		Vegetation Present? Ye	es X No	
% Bare Ground in Herb Stratum 78 Remarks:				Tresent: Te	3 NU	
remarks.						

Profile Desc	ription: (Describe	to the dep	th needed to docu	ment the	indicator	or confir	m the absence of in-	dicators.)
Depth	Matrix			x Feature	es _ 1	. 2	<u> </u>	
(inches)	Color (moist)	<u>%</u>	Color (moist)	<u>%</u>	Type ¹	Loc ²		Remarks
0-18	10 YR 3/1	85	10 YR 4/6	15	<u>C</u>	M	Clay	
		-			-			
				_	-			
			-					
					-			
			,	_	_			
			=Reduced Matrix, CS			ed Sand G		: PL=Pore Lining, M=Matrix.
_		able to all	LRRs, unless othe	rwise no	ted.)		Indicators for P	Problematic Hydric Soils ³ :
Histosol	. ,				atrix (S4)			(A9) (LRR I, J)
	ipedon (A2)			Redox (S			_	e Redox (A16) (LRR F, G, H)
Black His	, ,			d Matrix (,		_	e (S7) (LRR G)
	n Sulfide (A4)				neral (F1)		_	Depressions (F16)
	Layers (A5) (LRR			-	latrix (F2)			outside of MLRA 72 & 73)
	ck (A9) (LRR F, G ,			d Matrix	` '		Reduced Ve	* *
	l Below Dark Surfac rk Surface (A12)	æ (A11)	_	Dark Surf	. ,	٠,		Material (TF2)
	ucky Mineral (S1)			Depression	urface (F7)		w Dark Surface (TF12) ain in Remarks)
	lucky Peat or Peat ((S2) (I RR (essions (l	- 16)		drophytic vegetation and
	cky Peat or Peat (S		· · · —		73 of LR	,		rology must be present,
	ony i out of i out (o	o) (=:::::)	(,		rbed or problematic.
Restrictive L	ayer (if present):							'
Type:								
,	ches):						Hydric Soil Pres	ent? Yes X No
Remarks:								
Redox fea	atures observe	ed: Tinn	clay, occasion	nally flo	oded i	s natio	nally listed hyd	ric soil; naturally dark soil
HYDROLO	GY							
Wetland Hyd	Irology Indicators:							
_			d; check all that appl	v)			Secondary Inc	dicators (minimum of two required)
✓ Surface \		, roquiro	Salt Crust					Soil Cracks (B6)
	ter Table (A2)		Aquatic In		ac (B13)			Vegetated Concave Surface (B8)
Saturatio			Hydrogen					Patterns (B10)
	` '		Dry-Seaso			`		
			— 1		,	,		Rhizospheres on Living Roots (C3)
	t Deposits (B2)		Oxidized F			ving Roots		,
	osits (B3)		— `	not tilled	,	4)		Burrows (C8)
_	t or Crust (B4)		Presence Thin Muck			4)		n Visible on Aerial Imagery (C9)
	osits (B5)	l	_		` '			phic Position (D2)
	on Visible on Aerial	Imagery (B	7) <u> </u>	olain in R	emarks)			itral Test (D5)
	ained Leaves (B9)						Frost-Hea	ave Hummocks (D7) (LRR F)
Field Observ		, Y		2	inches			
Surface Water			No Depth (in					
Water Table			No X Depth (in					
Saturation Pr		'es X	No Depth (in	ches):		Wet	tland Hydrology Pre	sent? Yes X No
(includes cap		n dalide mo	onitoring well, aerial	nhotos n	revious in	spections)) if available	
200011001100	2414 (0110411	. 34430, 1110	won, aona	μ. ιστου, μ	. 5 1 1 5 4 5 11 1	2200110110)	,, αταπασίο.	
Remarks:								
		!	tal. Com	la a i	1			
depression	onal area ass	ociated	with former c	nanne	ıscar			





Project/Site: Lake Ralph Hall Supplemental JD				annin		
Applicant/Owner: Upper Trinity Regional Water District				State: TX	Sampling Point: WP	1409
Investigator(s): Jason Voight, Andrew Sample				inge:		
Landform (hillslope, terrace, etc.): Valley		Local relief	(concave,	convex, none): Concave	Slope (%	%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	46231		Long: -95.91948 Datum: NAD83		
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific		
Are climatic / hydrologic conditions on the site typical for						
Are Vegetation, Soil, or Hydrology				"Normal Circumstances" p		No
Are Vegetation, Soil x, or Hydrology				eeded, explain any answe		
SUMMARY OF FINDINGS – Attach site m						res, etc.
Hydrophytic Vegetation Present? Yes _X	No	ls th	e Sampleo	I Area		
Hydric Soil Present? Yes X	No		in a Wetla		No	
	No					
Remarks:			4 6.	و مرد و دارا و دارا		- 4:
depressional area associated with fo	ormer chan	inei scar	; not ny	draulically conne	ected to any exi	sting
stream channel						
VEGETATION - Use scientific names of p	olants.					
True Otestano (Diatro) 700 sq ft	Absolute	Dominant		Dominance Test work	sheet:	
Tree Stratum (Plot size: 700 sq ft) 1. Fraxinus pennsylvanica	<u>% Cover</u> 45	Species? Yes	FAC	Number of Dominant S		
2. Ulmus crassifolia	40	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	3	(A)
3				Total Number of Domin	nant	
4				Species Across All Stra	^	(B)
700 #	85	= Total Cov	er	Percent of Dominant S	pecies	
Sapling/Shrub Stratum (Plot size: 700 sq ft 1. Fraxinus pennsylvanica) 5	No	FAC	That Are OBL, FACW,		(A/B)
2. Ulmus crassifolia	<u>5</u>	No	FAC	Prevalence Index wor	ksheet:	
3				Total % Cover of:	Multiply by:	
4				OBL species	x 1 =	
5				FACW species		
	4.0	= Total Cov	er	FAC species		
Herb Stratum (Plot size: 450 sq ft) 1. Carex crus-corvi	65	Yes	OBL	FACU species		
2. Amaranthus tuberculatus	5	No	FAC	UPL species Column Totals:		
3. Viola missouriensis		No	FACW	Column Totals.	(^)	(D)
4. Ptilimnium nuttallii	5	No	FACW		x = B/A =	
5.				Hydrophytic Vegetation		
6.				1 -	Hydrophytic Vegetation	l
7				2 - Dominance Tes		
8				1=	ex is ≤3.0 Adaptations¹ (Provide s	unnorting
9				data in Remarks	s or on a separate she	et)
10				Problematic Hydro	phytic Vegetation ¹ (Exp	olain)
Woody Vine Stratum (Plot size: 450 sq ft)		= Total Cov		¹ Indicators of hydric soi be present, unless dist		y must
1 2				Hydrophytic		
22	0	= Total Cov		Vegetation	es X No	_
Remarks:						_

Profile Desc	ription: (Describe	to the dep	oth needed to docun	nent the	indicator	or confir	m the absence of i	ndicators.)
Depth	Matrix		Redox	x Feature				
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	Loc ²	Texture	Remarks
0-4	10 YR 3/1	100		-			Clay	
4-18	10 YR 3/1	95	10 YR 4/6	5	С	M	Clay	
				-	-			
·							- 	
								_
				-				_
1- 0.0							2	
			=Reduced Matrix, CS			ed Sand G		n: PL=Pore Lining, M=Matrix.
		able to all	LRRs, unless other					Problematic Hydric Soils ³ :
Histosol	` '			-	atrix (S4)		=	(A9) (LRR I, J)
	oipedon (A2) stic (A3)			edox (St Matrix (irie Redox (A16) (LRR F, G, H) ace (S7) (LRR G)
	en Sulfide (A4)			,	neral (F1)			s Depressions (F16)
	d Layers (A5) (LRR	F)		-	atrix (F2)		_	I outside of MLRA 72 & 73)
	uck (A9) (LRR F, G ,			d Matrix (_ `	/ertic (F18)
	d Below Dark Surfac			ark Surf				nt Material (TF2)
Thick Da	ark Surface (A12)		Depleted	d Dark Si	urface (F7))	Very Shall	ow Dark Surface (TF12)
Sandy N	Mucky Mineral (S1)		Redox D	epressio	ns (F8)		Other (Exp	plain in Remarks)
	Mucky Peat or Peat	. , .			essions (F	•		ydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S	3) (LRR F)	(MLI	RA 72 &	73 of LRR	2 H)		drology must be present,
	(16						unless dist	turbed or problematic.
	Layer (if present):							
Type:								V
Depth (in	ches):						Hydric Soil Pre	esent? Yes X No No No
Remarks:								
D . I . (.			.1	- 11 (1)			II - P - (I I:	detailed and and and
Redox te	atures observe	ea; i inr	i clay, occasion	ally fic	oaea i	s nation	naliy listed nyo	dric soil; naturally dark soil
HYDROLO	GY							
	drology Indicators:							
_			al. ala a al. a II tha ta a a a l.	۸			Casandanil	
		one require	d; check all that apply	•				ndicators (minimum of two required)
	Water (A1)		Salt Crust		(D.10)			Soil Cracks (B6)
	ater Table (A2)		Aquatic Inv					y Vegetated Concave Surface (B8)
Saturation	(,		Hydrogen :					e Patterns (B10)
	larks (B1)		Dry-Seaso				· 	d Rhizospheres on Living Roots (C3)
111	nt Deposits (B2)		<u></u> Oxidized R			ing Roots		re tilled)
	posits (B3)		(where n			4\		Burrows (C8)
"	at or Crust (B4)		Presence of Thin Muck			4)		on Visible on Aerial Imagery (C9)
`	oosits (B5)	l (D						rphic Position (D2)
	on Visible on Aerial tained Leaves (B9)	imagery (E	7) U Other (Exp	iain in Re	emarks)			eutral Test (D5) eave Hummocks (D7) (LRR F)
Field Obser	()						<u> </u>	eave Hullillocks (D7) (LKK F)
		/	Na X Danth (in	-l\·				
Surface Wat			No X Depth (inc					
Water Table			No X Depth (inc					X
Saturation P (includes car	resent? \	es	No X Depth (inc	ches):		_ Wet	land Hydrology Pr	resent? Yes A No
		n gauge, m	onitoring well, aerial p	hotos, p	revious ins	pections)	, if available:	
	,	5 5 /	<u> </u>			/		
Remarks:								
	onal area ass	sociated	d with former c	hanne	al scar			
pehicosi	onai aita ass	oolale	A WILLI TOTTITET C	ı ıaı ıı ıe	n scal			





Project/Site: Lake Ralph Hall Supplemental JD	(City/County	√: Ladonia/F	annin	Sampling Date: <u>5/31/2017</u>
Applicant/Owner: Upper Trinity Regional Water District					Sampling Point: WP 1410
Investigator(s): Jason Voight, Andrew Sample				nge:	
Landform (hillslope, terrace, etc.): Valley		Local relie	f (concave,	convex, none): Concave	Slope (%): 0-1%
Subregion (LRR): Southwest Prairies					
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classific	
Are climatic / hydrologic conditions on the site typical for tl	his time of yea				
Are Vegetation, Soil, or Hydrology					oresent? Yes X No
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answe	
SUMMARY OF FINDINGS – Attach site map					,
Hydrophytic Vegetation Present? Yes	No X				
Hydric Soil Present? Yes			he Sampled		v
Wetland Hydrology Present? Yes x	No	With	nin a Wetlar	nd? Yes	No X
Remarks:		1			
depressional area associated with for	mer chan	nel sca	r; not hy	draulically conne	cted to any existing
stream channel					
VEGETATION – Use scientific names of pla	nts.				
Table Chrotisms (Plat sizes, 700 sq ft	Absolute		t Indicator	Dominance Test work	sheet:
Tree Stratum (Plot size: 700 sq ft) 1. Quercus macrocarpa	% Cover 25	Yes	FACU	Number of Dominant S	
2. Maclura pomifera		Yes	FACU	That Are OBL, FACW, (excluding FAC-):	3 (A)
3. Celtis laevigata	10	No	FAC	Total Number of Domin	ant
4. Ulmus crassifolia	25	Yes	FAC	Species Across All Stra	6
	85	= Total Co	ver	Percent of Dominant Sp	necies
Sapling/Shrub Stratum (Plot size: 700 sq ft)				That Are OBL, FACW,	
1. Fraxinus pennsylvanica		No	FAC	Prevalence Index wor	ksheet:
2. Celtis laevigata	<u>5</u> 1	No	FAC		Multiply by:
3. Gleditsia triacanthos		No	FAC		$x 1 = \frac{15}{}$
4					x 2 = 10
5	11	= Total Co		FAC species 66	x 3 = 198
Herb Stratum (Plot size: 450 sq ft		= 10(a) 00	vei	FACU species 50	
1. Carex crus-corvi	15	Yes	OBL	UPL species 20	
2. Lolium multiflorum	20	Yes	UPL	Column Totals: 156	(A) <u>523</u> (B)
3. Elymus virginicus		Yes	FAC	Prevalence Index	- B/Δ - 3.35
4. Ptilimnium nuttalli	5	No	FACW	Hydrophytic Vegetation	
5					Hydrophytic Vegetation
6				2 - Dominance Tes	et is >50%
7				3 - Prevalence Inde	ex is ≤3.0 ¹
8					Adaptations ¹ (Provide supporting
9 10.		-			s or on a separate sheet)
10.		= Total Co	ver	Problematic Hydrol	phytic Vegetation ¹ (Explain)
Woody Vine Stratum (Plot size: 450) 1				¹ Indicators of hydric soi be present, unless distu	l and wetland hydrology must urbed or problematic.
2.				Hydrophytic	
	•	= Total Co		Vegetation Present? Yes	s No_X
% Bare Ground in Herb Stratum 40 %				riesent? Ye	3 INU :::
Remarks:					

Profile Desc	ription: (Describ	e to the depth	n needed to docu	ment the i	ndicator	or confirm	n the absence of	indicators.)	
Depth	Matrix			x Features			- .	ъ .	
(inches)	Color (moist)		Color (moist)	%	Type'	Loc ²	Texture	Remarks	_
0-18	10 YR 3/1	100					Clay		_
									_
									_
									_
									_
									_
									_
	oncentration, D=De					d Sand Gr		on: PL=Pore Lining, M=Matrix.	
Hydric Soil	Indicators: (Appl	icable to all L	RRs, unless other	rwise note	ed.)		Indicators for	Problematic Hydric Soils ³ :	
Histosol	. ,		·	Gleyed Ma	, ,			k (A9) (LRR I, J)	
	oipedon (A2)			Redox (S5	•		_	irie Redox (A16) (LRR F, G, H)	
	stic (A3)		= ''	d Matrix (S	,		_	ace (S7) (LRR G)	
	en Sulfide (A4)	. =\		Mucky Mir	, ,		-	ns Depressions (F16)	
	d Layers (A5) (LRF uck (A9) (LRR F, G	,		Gleyed Ma ed Matrix (F			_ `	H outside of MLRA 72 & 73) Vertic (F18)	
	d Below Dark Surfa			ed Matrix (r Dark Surfa	,		_	nt Material (TF2)	
	ark Surface (A12)	(, (, 1, 1)	_	ed Dark Su	, ,			low Dark Surface (TF12)	
	Mucky Mineral (S1)			Depression	, ,			plain in Remarks)	
2.5 cm N	Mucky Peat or Pea	(S2) (LRR G	, H) 🔲 High P	ains Depre	essions (F	16)	³ Indicators of I	hydrophytic vegetation and	
5 cm Μι	icky Peat or Peat (S3) (LRR F)	(MI	RA 72 & 7	3 of LRR	H)	wetland hy	ydrology must be present,	
							unless dis	sturbed or problematic.	
Restrictive	Layer (if present):								
Type:									
Depth (in	ches):						Hydric Soil Pro	esent? Yes No X	_
Remarks:							•		
NI I								12	٠,
No redox	reatures obse	ervea; i ini	n clay, occasi	onally fi	ooded	is natio	nally listed hy	ydric soil; naturally dark s	OII
HYDROLO	GY								
	drology Indicators								
_			shook all that ann	lv)			Cocondon	Indicators (minimum of two requires	۹/
	cators (minimum of	one required;		•				Indicators (minimum of two required	<u>1)</u>
	Water (A1)		Salt Crus		- (D40)			e Soil Cracks (B6)	`
	ater Table (A2)		_	vertebrate	, ,			ly Vegetated Concave Surface (B8) ge Patterns (B10))
Saturation Notes N	, ,			Sulfide Od				, ,	20)
	larks (B1) nt Deposits (B2)			on Water T Rhizosphe		ina Pooto		ed Rhizospheres on Living Roots (C	,3)
1 1 1	posits (B3)		· · · · · · · · · · · · · · · · · · ·	not tilled)	ies on Liv	ing Roots	—	re tilled) h Burrows (C8)	
	at or Crust (B4)			of Reduce	d Iron (C/	1)		ion Visible on Aerial Imagery (C9)	
	oosits (B5)			Surface (†)		orphic Position (D2)	
·	on Visible on Aeria	I Imagery (R7)		plain in Re				eutral Test (D5)	
	tained Leaves (B9		Other (Lx	piaiii iii ixe	marks)			leave Hummocks (D7) (LRR F)	
Field Obser								icave Hummocks (D1) (ERR 1)	
Surface Wat		Voc N	o X Depth (ir	ichee).					
Water Table			o X Depth (ir				and Usdualanis B	resent? Yes X No	
Saturation P (includes car		Yes N	o x Depth (ir	icnes):		_ weti	and Hydrology P	resent? Yes No	_
Describe Re	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pro	evious ins	pections),	if available:		
Remarks:									
depressi	onal area as	sociated v	with former o	hannel	scar				
40p10001	J. 141 41 04 45	S S S I G I G I			Jour				





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		
Investigator(s): Jason Voight, Andrew Sample		Section, To	wnship, Ra	nge:		
Landform (hillslope, terrace, etc.): Valley		Local relief	(concave,	convex, none): Concave	Slope	e (%): <u>0-1%</u>
Subregion (LRR): Southwest Prairies	Lat: 33.4	16202 deg		Long: <u>-95.91898</u> deg	Datum	n: NAD83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi		
Are climatic / hydrologic conditions on the site typical for t		_	_			
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		No
Are Vegetation, Soil _x, or Hydrology				eeded, explain any answ		
SUMMARY OF FINDINGS – Attach site ma	p showing	samplin	g point l	ocations, transects	s, important fea	itures, etc.
Hydrophytic Vegetation Present? Yes		Is th	e Sampled	I Area		
Hydric Soil Present? Wetland Hydrology Present? Yes X Yes X		with	in a Wetlaı	nd? Yes	No <u>×</u>	
Remarks:						
Depressional area associated with for	mer char	nel sca	r; comp	arable area to W	/P 1410	
VEGETATION – Use scientific names of pla	ınts.					
Tree Stratum (Plot size: 700- sq ft)	Absolute % Cover	Dominant Species?		Dominance Test wor		
1. Quercus macrocarpa	25	Yes	FACU	Number of Dominant S That Are OBL, FACW,		
2. Fraxinus pennsylvanica	25	Yes	FAC	(excluding FAC-):	2	(A)
3				Total Number of Domi	nant	
4				Species Across All Str	ata: <u>4</u>	(B)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	50	= Total Co	/er	Percent of Dominant S		
1. Ulmus crassifolia	2	No	FAC	That Are OBL, FACW,	or FAC: 50%	(A/B)
2.				Prevalence Index wo	rksheet:	
3.					<u>Multiply</u>	by:
4.					x 1 = 10	
5				FACW species 10		
450 #	2	= Total Co	ver .		x 3 = 81	
Herb Stratum (Plot size: 450 sq ft 1. Carex crus-corvi	10	Voc	OBL	FACU species 25		
Viola missouriensis	10	Yes No	FACW	UPL species 10 Column Totals: 82	$x = \frac{50}{261}$	
3. Lolium multiflorum	3	Yes	UPL	Column Totals: 02	(A) <u>201</u>	(B)
4 Ptilimnium nuttalli		No	FACW	Prevalence Inde	x = B/A = 3.18	
5.				Hydrophytic Vegetat	on Indicators:	
6.					Hydrophytic Vegetat	tion
7.				2 - Dominance Te		
8.				3 - Prevalence Inc		
9				4 - Morphological data in Remark	Adaptations ¹ (Provid	le supporting sheet)
10				Problematic Hydro		
450	30	= Total Co	ver .	l .		. ,
Woody Vine Stratum (Plot size: 450) 1.				¹ Indicators of hydric so be present, unless dis		
2.				Hydrophytic		
	•	= Total Co	/er	Vegetation	es No _X	
% Bare Ground in Herb Stratum 70				i-lescill!	75 NO <u>^_</u>	
Remarks:						

Profile Des	cription: (Describe	to the dep	th needed to docur	ment the	indicator	or confi	rm the absence of i	ndicators.)
Depth	Matrix			x Feature		. 2	_	
(inches)	Color (moist)	%	Color (moist)	%	Type ¹	_Loc ²	Texture	Remarks
0-18	10 YR 3/1	95			_		Clay	
4-18			10 YR 4/6	5	С	M	Clay	
				-	_			
					_			
-								
					_			
¹ Type: C=C	Concentration, D=Dep	oletion, RM:	=Reduced Matrix, CS	S=Covere	ed or Coate	ed Sand (Grains. ² Locatio	n: PL=Pore Lining, M=Matrix.
Hydric Soil	Indicators: (Applic	able to all	LRRs, unless other	rwise no	ted.)		Indicators for	Problematic Hydric Soils ³ :
Histoso	l (A1)		Sandy 0	Gleyed M	atrix (S4)		1 cm Muck	(A9) (LRR I, J)
Histic E	pipedon (A2)		Sandy F	Redox (S	5)		Coast Prai	rie Redox (A16) (LRR F, G, H)
Black H	listic (A3)		Stripped	d Matrix (S6)		Dark Surfa	ice (S7) (LRR G)
Hydrog	en Sulfide (A4)		Loamy	Mucky M	ineral (F1)		High Plains	s Depressions (F16)
Stratifie	d Layers (A5) (LRR	F)	Loamy	Gleyed M	fatrix (F2)		(LRR H	outside of MLRA 72 & 73)
	uck (A9) (LRR F, G,			d Matrix	` '			/ertic (F18)
	ed Below Dark Surfac	e (A11)	_	Dark Surf	, ,			t Material (TF2)
	ark Surface (A12)				urface (F7)		ow Dark Surface (TF12)
	Mucky Mineral (S1)			Depression	, ,			olain in Remarks)
	Mucky Peat or Peat				ressions (F			ydrophytic vegetation and
5 cm M	ucky Peat or Peat (S	3) (LRR F)	(ML	.RA 72 &	73 of LRF	R H)		drology must be present,
							unless dist	urbed or problematic.
Restrictive	Layer (if present):							
Туре:								
Depth (in	nches):						Hydric Soil Pre	sent? Yes X No
Remarks:								
Redox fe	atures observ	ed; Tinn	clay, occasion	nally flo	ooded i	s natio	nally listed hyd	dric soil; naturally dark soil
	201							
HYDROLC								
Wetland Hy	drology Indicators							
Primary Indi	cators (minimum of	one require	d; check all that appl	y)			Secondary I	ndicators (minimum of two required)
☐ Surface	Water (A1)		Salt Crust	(B11)			☐ Surface	Soil Cracks (B6)
High W	ater Table (A2)		Aquatic In		es (B13)		Sparsely	y Vegetated Concave Surface (B8)
	ion (A3)		Hydrogen					e Patterns (B10)
	Marks (B1)		Dry-Seaso			1		d Rhizospheres on Living Roots (C3)
	ent Deposits (B2)		Oxidized F					e tilled)
	posits (B3)			not tilled		ing ittoot		Burrows (C8)
	at or Crust (B4)		Presence			4)		on Visible on Aerial Imagery (C9)
1 1 1 -						+)		
	posits (B5)		Thin Muck					rphic Position (D2)
	ion Visible on Aerial	Imagery (B	7) <u> </u>	olain in R	emarks)			eutral Test (D5)
	Stained Leaves (B9)						Frost-He	eave Hummocks (D7) (LRR F)
Field Obse								
Surface Wa	ter Present?	/es	No X Depth (in	ches):				
Water Table	Present?	/es	No X Depth (in	ches):				
Saturation F	Present?	⁄es	No X Depth (in	ches):		We	etland Hydrology Pr	esent? Yes X No
(includes ca	pillary fringe)							
Describe Re	ecorded Data (stream	n gauge, m	onitoring well, aerial p	photos, p	revious ins	spections), if available:	
Remarks:								
Denress	ional area ass	sociated	l with former o	hanne	el scar			
2001000	ioriai aroa aoc	Jonatoc		/. IGI II IC	J. 5541			

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 15	504
Investigator(s): Jason Voight, Andrew Sample				nge:			
Landform (hillslope, terrace, etc.): Valley				-		Slope (%)	: 0-1%
Subregion (LRR): Southwest Prairies	Lat: 33.4	45929	,	Long: -95.93517 Datum: N		Datum: NA	\D83
Soil Map Unit Name: Tinn Clay, Occasionally Flooded				NWI classifi			
Are climatic / hydrologic conditions on the site typical for							
Are Vegetation, Soil, or Hydrology				"Normal Circumstances"		Yes X	No.
Are Vegetation, Soil x, or Hydrology				eeded, explain any answ			
SUMMARY OF FINDINGS – Attach site ma				•		,	es, etc.
Hydrophytic Vegetation Present? Yesx	No	la	the Sampled	I Aron			
Hydric Soil Present? Yes			the Sampled		No_	Х	
Wetland Hydrology Present? Yes	No x		illilli a vvellai	iu: 165	NO	<u> </u>	
Remarks: Wooded area bordering the north side	e of the N	orth S	ulphur riv	ver channel			
VVOCACA AIGA SOIGCIIII GIAN	3 01 1110 14	01111 0	aipiiai iiv	or oriention.			
VEGETATION – Use scientific names of pla	ants.						
	Absolute	Domina	ant Indicator	Dominance Test wor	ksheet:		
Tree Stratum (Plot size: 700 sq ft)			s? Status	Number of Dominant S	Species		
1. Ulmus crassifolia	40	Yes	FAC	That Are OBL, FACW, (excluding FAC-):	or FAC	4	(A)
2. Celtis laevigata	<u>40</u> 5	Yes No	FAC FAC	(excluding 1 AC).			_ (^)
Fraxinus pennsylvanica Maclura pomifera	5	No	FACU	Total Number of Domi Species Across All Str		5	(B)
4. Macidia pormiera							_ (D)
Sapling/Shrub Stratum (Plot size: 700 sq ft)	90	= Total C	Cover	Percent of Dominant S That Are OBL, FACW,		80%	(A/B)
1. Ulmus crassifolia	10	No	FAC	That Ale OBE, I AOV,	or rac.		_ (٨/٥)
2. Celtis laevigata	50	Yes	FAC	Prevalence Index wo			
3. Fraxinus pennsylvanica	2	No	FAC	Total % Cover of:			
4				OBL species			
5				FACW species			
Heat Otest and (Distretion 450 sq ft	62	= Total C	Cover	FACIL species		_	_
Herb Stratum (Plot size: 450 sq ft) 1. Elymus virginicus	50	Yes	FAC	FACU species UPL species		1 = 5 _	_
2. Viola missouriensis	10	No	FACW	Column Totals:			
3. Carex planostachys	40	Yes	UPL	Column Totals.	(/\)		(D)
4				Prevalence Inde	$\kappa = B/A =$		_
5				Hydrophytic Vegetat			
6.				1 - Rapid Test for	, , ,	· ·	
7.				2 - Dominance Te			
8.				3 - Prevalence Inc			
9				4 - Morphological data in Remark	Adaptation	s' (Provide su separate sheet	pporting)
10				Problematic Hydro			
450 cg ft	100	= Total C	Cover	l .		, ,	,
Woody Vine Stratum (Plot size: 450 sq ft) 1.				¹ Indicators of hydric so be present, unless dis			must
2				Hydrophytic			
	0	= Total C		Vegetation Present? You	es X	No	
% Bare Ground in Herb Stratum 0				i resent:		NO	
Remarks:							

Profile Desc	ription: (Describe	e to the depth	n needed to docur	nent the i	indicator	or confirn	n the absence of	indicators.)
Depth	Matrix			x Feature	S1			
(inches)	Color (moist)		Color (moist)	%	Type ¹	Loc ²	<u>Texture</u>	Remarks
0-18	10 YR 2/1	90					Clay	
					. '			
	-				·	-		
	-					-		
					. '			
-				-			<u> </u>	
					·			_
	oncentration, D=De					ed Sand G		on: PL=Pore Lining, M=Matrix.
_	Indicators: (Appli	cable to all L	_				_	Problematic Hydric Soils ³ :
Histosol	, ,			Gleyed Ma				k (A9) (LRR I, J)
	pipedon (A2)			Redox (S5				irie Redox (A16) (LRR F, G, H)
Black Hi	, ,			d Matrix (S	,			ace (S7) (LRR G)
	n Sulfide (A4) d Layers (A5) (LRR	E \		Mucky Mii Gleyed Mi			_	s Depressions (F16) Houtside of MLRA 72 & 73)
	ick (A9) (LRR F, G			d Matrix (_ `	Vertic (F18)
	d Below Dark Surfa	,		Dark Surfa	,			nt Material (TF2)
	ark Surface (A12)	(****)	_		urface (F7))		low Dark Surface (TF12)
	lucky Mineral (S1)			Depressio	, ,			plain in Remarks)
2.5 cm N	Mucky Peat or Peat	(S2) (LRR G	, H) 🔲 High Pla	ains Depre	essions (F	16)		nydrophytic vegetation and
5 cm Mu	icky Peat or Peat (S3) (LRR F)	(ML	RA 72 &	73 of LRR	H)	wetland hy	drology must be present,
							unless dis	turbed or problematic.
Restrictive I	_ayer (if present):							
Type:								
Depth (ind	ches):						Hydric Soil Pre	esent? Yes No X
Remarks:								
No redox	features obse	erved; Tinr	n clay, occasi	onally f	looded	is natio	nally listed hy	dric soil; naturally dark soil
HYDROLO	GY							
Wetland Hyd	drology Indicators	S :						
Primary Indic	cators (minimum of	one required;	check all that appl	y)			Secondary I	ndicators (minimum of two required)
Surface	Water (A1)		Salt Crust	(B11)			Surface	e Soil Cracks (B6)
High Wa	iter Table (A2)		Aquatic In		es (B13)		Sparsel	y Vegetated Concave Surface (B8)
Saturation	on (A3)		Hydrogen	Sulfide O	dor (C1)		Drainag	ge Patterns (B10)
☐ Water M	arks (B1)		Dry-Seaso	n Water 1	Γable (C2)		Oxidize	d Rhizospheres on Living Roots (C3)
Sedimer	nt Deposits (B2)		Oxidized F	Rhizosphe	res on Liv	ing Roots	(C3) (when	re tilled)
Drift Dep	oosits (B3)		(where	not tilled)			Crayfish	n Burrows (C8)
│	at or Crust (B4)		Presence	of Reduce	ed Iron (C	4)	Saturati	ion Visible on Aerial Imagery (C9)
Iron Dep	osits (B5)		Thin Muck	Surface ((C7)		Geomo	rphic Position (D2)
Inundation	on Visible on Aeria	Imagery (B7)	Other (Ex	olain in Re	emarks)		☐ FAC-Ne	eutral Test (D5)
Water-S	tained Leaves (B9)						Frost-H	eave Hummocks (D7) (LRR F)
Field Observ	vations:							
Surface Wate	er Present?	Yes N	o X Depth (in	ches):				
Water Table			o X Depth (in					
Saturation Pr			o X Depth (in				land Hydrology P	resent? Yes No_X
(includes cap	oillary fringe)							
Describe Red	corded Data (strea	m gauge, mor	nitoring well, aerial	photos, pr	evious ins	pections),	if available:	
Remarks:								
1								





APPENDIX D PHOTOGRAPHS

PHOTOGRAPHS ON-CHANNEL OPEN WATERS



OCP2. WP235 Pond with 3 foot wetland fringe. 5/30/2017.



OCP2. WP235 Pond with 3 foot wetland fringe. 5/30/2017.



OCP3. WP236 Pond with 3-15 foot wetland fringe. 5/30/2017.



OCP3. WP236 Pond with 3-15 foot wetland fringe. 5/30/2017.



OCP3. WP238 Larger part of the 3-15 foot wetland fringe of on-channel pond 3. 5/30/2017.



OCP4. WP240 Pond with no wetland fringe. 5/30/2017.



OCP4. WP240 Pond with no wetland fringe. 5/30/2017.



OCP5. WP401 Pond with 1 foot wetland fringe. 5/31/2017.



OCP5. WP401 Pond with 1 foot wetland fringe. 5/31/2017.



OCP7. WP320 Small pond with no wetland fringe before transition to channel. 5/30/2017.





OCP8. WP1472 Pond with partial 1 foot wetland fringe. 5/31/2017.



OCP10. WP326 Pond with 6 foot wetland fringe and submerged vegetation. 5/30/2017.



OCP10. WP326 Pond with 6 foot wetland fringe and submerged vegetation. 5/30/2017.



OCP11. WP400 Pond with partial 1 foot wetland fringe, submerged and floating vegetation. 5/30/2017.



OCP11. WP400 Pond with partial 1 foot wetland fringe, submerged and floating vegetation. 5/30/2017.



OCP13. WP1 Pond with partial 1-6 foot wetland fringe. 6/1/2017.



OCP13. WP2 Pond with 1-6 foot partial wetland fringe. 6/1/2017.



OCP17. WP1500 Large pond with wetland fringe ranging from 1-20 feet and algae. 5/31/2017.



OCP17. WP1501 Large pond with wetland fringe ranging from 1-20 feet and algae. 5/31/2017.



OCP17. WP1502 Large pond with wetland fringe ranging from 1-20 feet and algae. 5/31/2017.



OCP17. WP1502 Large pond with wetland fringe ranging from 1-20 feet and algae. 5/31/2017.



OCP17. WP1503 Large pond with wetland fringe ranging from 1-20 feet and algae. 5/31/2017.



OCP19. WP715 Pond with partial 1-3 foot wetland fringe. 5/31/2017.



OCP19. WP715 Pond with partial 1-3 foot wetland fringe. 5/31/2017.



OCP23. WP336 Large pond with partial 1 foot wetland fringe. 6/1/2017.



OCP32. WP4 Pond with no wetland fringe. 5/31/2017.



OCP32. WP4 Pond with no wetland fringe. 5/31/2017.



OCP32. WP4 Pond with no wetland fringe. 5/31/2017.



OCP33. WP10 Pond with partial 3 foot wetland fringe and submerged vegetation. 5/31/2017.



OCP33. WP10 Pond with partial 3 foot wetland fringe and submerged vegetation. 5/31/2017.

PHOTOGRAPHS UPLAND OPEN WATERS



UP6. WP226 Upland Pond. 5/30/2017.







UP8. WP227 Upland Pond. 5/30/2017.



UP8. WP227 Upland Pond. 5/30/2017.



UP16. WP234 Upland Pond. 5/30/2017.



UP17. WP231 Upland Pond. 5/30/2017.



UP18. WP233 Upland Pond. 5/30/2017.



UP19. WP225 Upland Pond. 5/30/2017.



UP30. WP322 Upland Pond. 5/30/2017.



UP65. WP402 Upland Pond. 5/31/2017.



UP65. WP402 Upland Pond. 5/31/2017.



UP67. WP1473 Upland Pond. 5/31/2017.



UP79. WP713 Upland Pond below UP207. 5/31/2017.



UP79/80. WP714 Berm between ponds below UP207. 5/31/2017.



UP80. WP714 Upland Pond. 5/31/2017.



UP117. WP334 Upland Pond. 6/1/2017.





UP143. WP4 Upland Pond. 6/2/2017.





UP152. WP711 Upland Pond. 5/31/2017.



UP155. WP711 Upland Pond. 5/31/2017.



UP168. WP6 Upland Pond. 5/31/2017.



UP207. WP713 Upland. 5/31/2017.

Lake Ralph Hall	Appendix E
E-4: Approved Jurisdiction	nal Determination
pp	



DEPARTMENT OF THE ARMY

FORT WORTH DISTRICT, CORPS OF ENGINEERS
P. O. BOX 17300
FORT WORTH, TEXAS 76102-0300

July 27, 2017

Regulatory Division

SUBJECT: SWF-2003-00336, Lake Ralph Hall, Upper Trinity Regional Water District

Mr. Larry Patterson Upper Trinity Regional Water District 900 N. Kealy P.O. Drawer 305 Lewisville, Texas 75067

Dear Mr. Patterson:

This letter is in regard to your request for an approved jurisdictional determination information received March 29, 2017, and additional information received June 22 and July 5, 2017, concerning the proposed Lake Ralph Hall Reservoir project located in Fannin County, Texas. The study area for the approved jurisdictional determination encompasses approximately 13,100 acres.

We have reviewed the site in question in accordance with Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act of 1899. Under Section 404, the USACE regulates the discharge of dredged and fill material into waters of the United States, including wetlands. Our responsibility under Section 10 is to regulate any work in, or affecting, navigable waters of the United States.

Based on the <u>Supplemental Report in Support for AJD for proposed Lake Ralph Hall project</u>, dated June 21, 2017, multiple previous site visits associated with the ongoing development of the Environmental Impact Statement associated with the permit application, and other information available to us, waters of the United States under Section 404 do exist in the study area. We concur with the delineation of waters of the United States as shown on the 11 maps sheets included in the referenced report identified as <u>Aquatic Resources Proposed Lake Ralph Hall Supplemental Jurisdictional Determination</u>. This approved jurisdictional determination (JD) is valid for a period of no more than five (5) years from the date of this letter unless new information warrants revision of the delineation before the expiration date. A copy of the Approved Jurisdictional Determination form supporting this determination is enclosed for your information.

This determination does not convey any property rights, either in real estate or material or any exclusive privileges, nor does it authorize any injury to property or invasion of rights or Federal, State, or local laws or regulations. This determination does not eliminate the requirements to obtain State or local permits or approvals as needed.

Department of the Army authorization would be required for the discharge of dredged or fill material into any areas identified as waters of the United States, unless otherwise exempted. If you anticipate a discharge, please provide us with a detailed description of the proposed project, a suitable map of the proposed project area showing the location of proposed discharges, the type and amount of material (temporary or permanent), if any, to be discharged, and plan and cross-section views of the proposed project. Please note that it is unlawful to start work without a Department of the Army permit if one is required.

The Applicant may accept or appeal this approved JD or provide new information in accordance with the enclosed Notification of Administration Appeal Options and Process and Request for Appeal (NAAOP-RFA). If the Applicant elects to appeal this approved JD, the Applicant must complete Section II (Request for Appeal or Objections to an Initial Proffered Permit) of the enclosure and return it to the Division Engineer, ATTN: CESWD-PD-O Appeals Review Officer, U.S. Army Corps of Engineers, 1100 Commerce Street, Dallas, Suite 831, Texas 75242-0216 within 60 days of the date of this notice. Failure to notify the USACE within 60 days of the date of this notice means you accept the approved JD in its entirety and waive all rights to appeal the approved JD.

Thank you for your interest in our nation's water resources. If you have any questions concerning this matter please contact Mr. Chandler Peter at (817) 886-1736. Other information concern our regulatory program is at http://www.swf.usace.army.mil/Missions/Regulatory.

Please help the regulatory program improve its service by completing the survey on the following website: http://corpsmapu.usace.army.mil/cm_apex/f?p=regulatory_survey

Sincerely,

Chief, Regulatory Division

Enclosures:

Approved Jurisdictional Determination Form

NOTIFICATION OF ADMINISTRATIVE APPEAL OPTIONS AND PROCESS AND REQUEST FOR APPEAL

Appl	icant: Upper Trinity Regional Water District	File Number: 2003-00336	Date: 7/24/2017
Attac	hed is:		See Section below
	INITIAL PROFFERED PERMIT (Standard P	ermit or Letter of permission)	A
	PROFFERED PERMIT (Standard Permit or I	Letter of permission)	В
	PERMIT DENIAL		C
X	APPROVED JURISDICTIONAL DETERMI	NATION	D
	PRELIMINARY JURISDICTIONAL DETER	RMINATION	E

SECTION I - The following identifies your rights and options regarding an administrative appeal of the above decision. Additional information may be found at

http://www.usace.army.mil/Missions/CivilWorks/RegulatoryProgramandPermits/appeals.aspx or Corps regulations at 33 CFR Part 331.

- A: INITIAL PROFFERED PERMIT: You may accept or object to the permit.
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- OBJECT: If you object to the permit (Standard or LOP) because of certain terms and conditions therein, you may request that the permit be modified accordingly. You must complete Section II of this form and return the form to the district engineer. Your objections must be received by the district engineer within 60 days of the date of this notice, or you will forfeit your right to appeal the permit in the future. Upon receipt of your letter, the district engineer will evaluate your objections and may: (a) modify the permit to address all of your concerns, (b) modify the permit to address some of your objections, or (c) not modify the permit having determined that the permit should be issued as previously written. After evaluating your objections, the district engineer will send you a proffered permit for your reconsideration, as indicated in Section B below.
- B: PROFFERED PERMIT: You may accept or appeal the permit
- ACCEPT: If you received a Standard Permit, you may sign the permit document and return it to the district engineer for final authorization. If you received a Letter of Permission (LOP), you may accept the LOP and your work is authorized. Your signature on the Standard Permit or acceptance of the LOP means that you accept the permit in its entirety, and waive all rights to appeal the permit, including its terms and conditions, and approved jurisdictional determinations associated with the permit.
- APPEAL: If you choose to decline the proffered permit (Standard or LOP) because of certain terms and conditions therein, you may appeal the declined permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- C: PERMIT DENIAL: You may appeal the denial of a permit under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- D: APPROVED JURISDICTIONAL DETERMINATION: You may accept or appeal the approved JD or provide new information.
- ACCEPT: You do not need to notify the Corps to accept an approved JD. Failure to notify the Corps within 60 days of the date of this notice, means that you accept the approved JD in its entirety, and waive all rights to appeal the approved JD.
- APPEAL: If you disagree with the approved JD, you may appeal the approved JD under the Corps of Engineers Administrative Appeal Process by completing Section II of this form and sending the form to the division engineer. This form must be received by the division engineer within 60 days of the date of this notice.
- E: PRELIMINARY JURISDICTIONAL DETERMINATION: You do not need to respond to the Corps regarding the preliminary JD. The Preliminary JD is not appealable. If you wish, you may request an approved JD (which may be appealed), by contacting the Corps district for further instruction. Also you may provide new information for further consideration by the Corps to reevaluate the JD.

SECTION II - REQUEST FOR APPEAL or OBJECTI		
REASONS FOR APPEAL OR OBJECTIONS: (Describe initial and formation and in the control of the cont		
initial proffered permit in clear concise statements. You may attac or objections are addressed in the administrative record.)	ch additional information to this ic	orm to clarify where your reasons
•		
•		
.*		
	·	
		,
•		
	·	
		,
ADDITIONAL INFORMATION: The appeal is limited to a review record of the appeal conference or meeting, and any supplemental		
clarify the administrative record. Neither the appellant nor the Cor	rps may add new information or at	nalyses to the record. However,
you may provide additional information to clarify the location of in	Market Name of the Comment of the Co	iministrative record.
POINT OF CONTACT FOR QUESTIONS OR INFOR If you have questions regarding this decision and/or the appeal	Y TO THE TAXABLE PARTY OF THE P	ding the appeal process you may
process you may contact:	also contact:	and appear process you may
,	Mr. Elliott Carman Administrative Appeals Review Off	ficer (CESWD-PD-O)
l e e e e e e e e e e e e e e e e e e e	U.S. Army Corps of Engineers	1001 (0101112 12 5)
	1100 Commerce Street, Suite 831 Dallas, Texas 75242-1317	·
TOTAL ON ENTERNY. Worse signature below greats the right of ent	469-487-7061	* 1war
RIGHT OF ENTRY: Your signature below grants the right of entr consultants, to conduct investigations of the project site during the		
notice of any site investigation, and will have the opportunity to pa	articipate in all site investigations.	
	Date:	Telephone number:
Signature of appellant or agent.	i	_
Digitatare or appearant or agont.	,	<u> </u>

APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I:	BACKGROUND	INFORMATION

- REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 26 June 2017
- В

В.	DISTRICT OFFICE, FILE NAME, AND NUMBER: Fort Worth District, Lake Ralph Hall, SWF-2003-00336
C.	PROJECT LOCATION AND BACKGROUND INFORMATION: State: Texas County/parish/borough: Fannin City: Ladonia Center coordinates of site (lat/long in degree decimal format): Lat. 33.46302° N, Long. 95.90102° W. Universal Transverse Mercator: Name of nearest waterbody: North Sulphur River Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: Sulphur River Name of watershed or Hydrologic Unit Code (HUC): 8 - 11140301 Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D.	REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): Office (Desk) Determination. Date: June 26, 2017 Field Determination. Date(s): Specific field investigation to develop data to produce PJD dated October 26, 2006 were conducted by applicant August-September, 2005. USACE and cooperating agencies conducted numerous site visits to portions of project area from 2002 through 2015 associated with jurisdictional determination and resource assessments associated with development of Environmental Impact Statement for proposed project.
	CTION II: SUMMARY OF FINDINGS RHA SECTION 10 DETERMINATION OF JURISDICTION.
	re Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the lew area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. Explain:
В.	CWA SECTION 404 DETERMINATION OF JURISDICTION.
The	re Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required]
	1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters Isolated (interstate or intrastate) waters, including isolated wetlands
	b. Identify (estimate) size of waters of the U.S. in the review area:

Stream (non-wetland) waters:

linear feet: 690,918 acreage: 387.14 (streams)

Other open waters:

acres: 59.89 (on channel ponds)

Wetlands: 10.0 acres (PEM lacustrine fringe around on-channel ponds).

- c. Limits (boundaries) of jurisdiction based on: 1987 Delineation Manual and Great Plains Delineation Supplement Elevation of established OHWM (if known):
- 2. Non-regulated waters/wetlands (check if applicable):3

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below.

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

³ Supporting documentation is presented in Section III.F.

Potentially jurisdictional waters and/or wetlands were assessed within the review area and determined to be not jurisdictional. Explain: 212 open water stock tanks constructed in uplands occur within the study area totaling 83 acres (Table A-3 of Appendix A). Additionally, there are 3.8 acres (comprised of 26 features — Table A-4 of Appendix A) of forested wetlands associated with remnant channels of the North Sulphur River. Due to historic channelization and significant channel degradation, the 100 year flood of the North Sulphur River is contained in its existing channel banks. No hydrologic connection/significant nexus exists between the remnant channels and the North Sulphur River.

SECTION III: CWA ANALYSIS

A. TNWs AND WETLANDS ADJACENT TO TNWs

The agencies will assert jurisdiction over TNWs and wetlands adjacent to TNWs. If the aquatic resource is a TNW, complete Section III.A.1 and Section III.D.1. only; if the aquatic resource is a wetland adjacent to a TNW, complete Sections III.A.1 and 2 and Section III.D.1.; otherwise, see Section III.B below.

TNW

Identify TNW: No TNWs are in assessment area. The nearest USACE designated navigable water is the segment of the Sulphur River downstream of Wright Patman Dam to the Texas/Arkansas state border. See section B.1.ii below for distance.

Summarize rationale supporting determination:

2. Wetland adjacent to TNW

Summarize rationale supporting conclusion that wetland is "adjacent": N/A.

B. CHARACTERISTICS OF TRIBUTARY (THAT IS NOT A TNW) AND ITS ADJACENT WETLANDS (IF ANY):

This section summarizes information regarding characteristics of the tributary and its adjacent wetlands, if any, and it helps determine whether or not the standards for jurisdiction established under *Rapanos* have been met.

The agencies will assert jurisdiction over non-navigable tributaries of TNWs where the tributaries are "relatively permanent waters" (RPWs), i.e. tributaries that typically flow year-round or have continuous flow at least seasonally (e.g., typically 3 months). A wetland that directly abuts an RPW is also jurisdictional. If the aquatic resource is not a TNW, but has year-round (perennial) flow, skip to Section III.D.2. If the aquatic resource is a wetland directly abutting a tributary with perennial flow, skip to Section III.D.4.

A wetland that is adjacent to but that does not directly abut an RPW requires a significant nexus evaluation. Corps districts and EPA regions will include in the record any available information that documents the existence of a significant nexus between a relatively permanent tributary that is not perennial (and its adjacent wetlands if any) and a traditional navigable water, even though a significant nexus finding is not required as a matter of law.

If the waterbody⁴ is not an RPW, or a wetland directly abutting an RPW, a JD will require additional data to determine if the waterbody has a significant nexus with a TNW. If the tributary has adjacent wetlands, the significant nexus evaluation must consider the tributary in combination with all of its adjacent wetlands. This significant nexus evaluation that combines, for analytical purposes, the tributary and all of its adjacent wetlands is used whether the review area identified in the JD request is the tributary, or its adjacent wetlands, or both. If the JD covers a tributary with adjacent wetlands, complete Section III.B.1 for the tributary, Section III.B.2 for any onsite wetlands, and Section III.B.3 for all wetlands adjacent to that tributary, both onsite and offsite. The determination whether a significant nexus exists is determined in Section III.C below.

1. Characteristics of non-TNWs that flow directly or indirectly into TNW

(i) General Area Conditions:

Watershed size: 100 square miles Drainage area: 467 square miles Average annual rainfall: 33 inches Average annual snowfall: 3 inches

(ii) Physical Characteristics:

(-\	D -1-4	:1- :	:41-	TATES.
(a)	Keiai	ionship	with	IIN W:

Tributary flows directly into TNW.

Ephemeral tributaries flow through 2 and the North Sulphur River flows through 1 tributary before entering TNW.

Project waters are more than 100 river miles from TNW.

⁴ Note that the Instructional Guidebook contains additional information regarding swales, ditches, washes, and erosional features generally and in the arid West.

Project waters are more than 30 river miles from RPW. Project waters are 105 aerial (straight) miles from TNW. Project waters are 37 aerial (straight) miles from RPW. Project waters cross or serve as state boundaries. Explain: Identify flow route to TNW5: Named (see item b below) and unnamed tributaries flow into North Sulphur River which flows into to Sulphur River (starting at confluence with South Sulphur River which becomes navigable approximately 105 miles downstream. Tributary stream order, if known: Varies. General Tributary Characteristics (check all that apply): ☐ Natural. Explain: Tributary is: Artificial (man-made). Explain: Manipulated (man-altered). Explain: North Sulphur River and named (Merrill, Bralley Pool, Leggets Branch, Davis, Pickle, Pot, Brushy, Bear, Allen, Long and Headrick Branch Creeks) and unnamed tributries to it are natural channels but modified due to headcuts. North Sulphur River channelized in 1930s. Unique soil properties continue to erode and channel as well as tributaries continue to degrade. Headcuts occur to all tributaries in the study area. Tributary properties with respect to top of bank (estimate): Average width: 150 feet Average depth: 45 feet Average side slopes: 2:1. Primary tributary substrate composition (check all that apply): ⊠ Silts ☐ Sands ☐ Concrete Cobbles ☐ Gravel Muck ⊠ Bedrock ☐ Vegetation. Type/% cover: Other. Explain: Bedrock is decomposing soft shale. Tributary condition/stability [e.g., highly eroding, sloughing banks]. Explain: highly eroding, sloughing banks with channel eroded into underlying shale bedrock; delamination of the shale results in average channel down-cutting at a rate of 2 inches/year and channel widening of 4 inches/year as side slopes are destabilized and slough. Presence of run/riffle/pool complexes. Explain: No riffle pool complexes exist. Tributary geometry: Relatively straight Tributary gradient (approximate average slope): Dependent on tributary. North Sulphur River is 0.1 % (c) Flow: Tributary provides for: Intermittent but not seasonal flow Other tributaries are epemeral. Estimate average number of flow events in review area/year: 6-10 Describe flow regime: Channel flow is extremely flashy with high flows immediately following significant rain events rapidly reducing to a trickle unless subsequent rainfall experienced in the watershed. Channel is frequently dry in most locations with variable to non-existent pooling. Other information on duration and volume: Stage discharge and rating curves are provided in the geomorphological evaluation and hydraulic and hydrologic analyses. Surface flow is: Discrete and confined. Characteristics: Flashy - immediate peak with rapidly diminishing flows. Subsurface flow: Unknown. Explain findings: No groundwater discharges documented in hydrologic analysis. Dye (or other) test performed: Tributary has (check all that apply): Bed and banks ☑ OHWM⁶ (check all indicators that apply): clear, natural line impressed on the bank the presence of litter and debris changes in the character of soil destruction of terrestrial vegetation shelving the presence of wrack line vegetation matted down, bent, or absent sediment sorting \boxtimes leaf litter disturbed or washed away scour multiple observed or predicted flow events sediment deposition abrupt change in plant community water staining

⁵ Flow route can be described by identifying, e.g., tributary a, which flows through the review area, to flow into tributary b, which then flows into TNW. ⁶A natural or man-made discontinuity in the OHWM does not necessarily sever jurisdiction (e.g., where the stream temporarily flows underground, or where the OHWM has been removed by development or agricultural practices). Where there is a break in the OHWM that is unrelated to the waterbody's flow regime (e.g., flow over a rock outcrop or through a culvert), the agencies will look for indicators of flow above and below the break.

		☐ other (list):
		☐ Discontinuous OHWM. ⁷ Explain:
,		If factors other than the OHWM were used to determine lateral extent of CWA jurisdiction (check all that apply): High Tide Line indicated by: Oil or scum line along shore objects If fine shell or debris deposits (foreshore) If physical markings/characteristics If tidal gauges Other (list): Mean High Water Mark indicated by: Survey to available datum; If physical markings; Vegetation lines/changes in vegetation types.
(ii	Ch	emical Characteristics: aracterize tributary (e.g., water color is clear, discolored, oily film; water quality; general watershed characteristics, etc.). Explain: Turbid during flow events but clearer during lower flows ntify specific pollutants, if known: Suspended solids.
(iv	P) Bio	Riparian corridor. Characteristics (type, average width): Wetland fringe. Characteristics: Emergent wetland occurs on fringes of on-channel stock tanks. Habitat for: Federally Listed species. Explain findings: Fish/spawn areas. Explain findings: Other environmentally-sensitive species. Explain findings: Aquatic/wildlife diversity. Explain findings: Limited invertebrate and songbird utilization.
2. Cl	haract	teristics of wetlands adjacent to non-TNW that flow directly or indirectly into TNW
(i)		ysical Characteristics: General Wetland Characteristics: Properties: PEM fringes associated with on channel ponds Wetland size: 10 acres Wetland type. Explain: Wetlands confined to on channel ponds Wetland quality. Explain: Detailed functional assessment of the wetlands not accomplished. Vegetation in wetland areas are typically desirable and include Typha, Eleocharis, Polyuganum, Carex, Juncus, Sagittaria, Ludwigia, Potamigeton and Ranunculus species. Hydrilla was also documented in some assessed areas. Wetlands are expected to rate as low to average quality based on geomorphic and vegetation type, density as well as agricultural activities and grazing adjacent and in the wetland areas. Wetlands provide soil rentention and protection at pond edges. Project wetlands cross or serve as state boundaries. N/A
spills o		Flow is: Ephemeral flow . Explain: Wetlands are associated with on-channel pond construction. Outlets exist and/or uring precipitation events from ponds into connecting named and unnamed tributaries to the North Sulphur River.
		Surface flow is: Confined Characteristics: Subsurface flow: Unknown. Explain findings: Dye (or other) test performed:
	(c)	Wetland Adjacency Determination with Non-TNW: ☐ Directly abutting — wetlands are created by and connected to pond pool elevations. ☐ Not directly abutting ☐ Discrete wetland hydrologic connection. Explain: ☐ Ecological connection. Explain: ☐ Separated by berm/barrier. Explain: There is an earthen berm east of the wetland.
	(d)	Proximity (Relationship) to TNW Project wetlands are 30 (or more) river miles from TNW. Project waters are 30 (or more) aerial (straight) miles from TNW. Flow is from: Wetland to navigable waters. Estimate approximate location of wetland as within the 2-year or less floodplain.
(ii)	Che	emical Characteristics:
		·

Characterize wetland system (e.g., water color is clear, brown, oil film on surface; water quality; general watershed characteristics; etc.). Explain: Herbaceous fringe varying in widths from 1 to more than 20 feet as part of 27 on-channel ponds. Wetlands perform water quality functions from overland flow to waters via filtration and sediment trapping, retention and nutrient transformation. Nutrient transformation from stream flow into ponds also accomplished. Identify specific pollutants, if known: unknown.

(i	iii) Biological Characteristics. Wetland supports (check all that apply):
	Riparian buffer. Characteristics (type, average width):
	✓ Vegetation type/percent cover. Explain: Eleocharis, Typha,
	Habitat for:
	☐ Federally Listed species. Explain findings:
	☐ Fish/spawn areas. Explain findings:
	Other environmentally-sensitive species. Explain findings:
	Aquatic/wildlife diversity. Explain findings: Variation in vegetation communities compared to upland vegetation ca
provide min	or habitat for occasional use of wetland and water dependent species.

3. Characteristics of all wetlands adjacent to tributaries (if any)

All wetland(s) being considered in the cumulative analysis: 25-30

Approximately 10 acres in total are being considered in the cumulative analysis as identified in the delineation report at 27 onchannel ponds. Off-site desk top estimation was used to identify wetland fringes occurring with on-channel ponds. The higher resolution aerial photographs from 2014-2016 compared to those used in the 2006 PJD report facilitated in refinements of the previously identified (delineated) aquatic resources as well as identification in modifications to aquatic resources within the project area (erosional features, impoundments, etc.). These refinements to the delineated aquatic resources were performed as a "desktop" evaluation. To ground-truth observations from the desktop evaluation, field investigations were performed May 30 through June 2, 2017 to assess a representative sample area of portions of the 13,094-acre assessment area. These "on the ground" assessments aided in verification of identified aquatic resources from the desktop evaluation as well as to map the limits of potential waters of the U.S. identified both from the desktop evaluation and in the field. As an example, 14 of the 47 mapped on-channel ponds within the assessment area representing approximately 29.7 percent were investigated in the field. Lacustrine "fringe" wetland areas associated with the 14 on-channel ponds assessed in the field were observed and recorded in the field. The lacustrine wetlands, predominantly herbaceous emergent wetlands, represented approximately 3.4 acres of the 23.8 acres of the 14 on-channel ponds assessed or approximately 14.3 percent of the assessed on-channel pond acreage. This percentage of fringe wetlands was used to estimate the lacustrine wetland area associated with the total delineated area of onchannel impoundments within the assessment area that would be considered as hydraulically and hydrologically connected to waters of the U.S. Calculation of area of Lacustrine Fringe Wetlands (emergent) totaled 3.4 acres identified for 23.8 acres of 14 on-channel ponds that were field assessed. This equated to 14.3 percent of 69.9 acres of 47 on-channel ponds within assessment area resulting in the determination that slightly less than 10 acres of on-channel fringe wetlands exist.

Summarize overall biological, chemical and physical functions being performed: See descriptions above.

C. SIGNIFICANT NEXUS DETERMINATION

A significant nexus analysis will assess the flow characteristics and functions of the tributary itself and the functions performed by any wetlands adjacent to the tributary to determine if they significantly affect the chemical, physical, and biological integrity of a TNW. For each of the following situations, a significant nexus exists if the tributary, in combination with all of its adjacent wetlands, has more than a speculative or insubstantial effect on the chemical, physical and/or biological integrity of a TNW. Considerations when evaluating significant nexus include, but are not limited to the volume, duration, and frequency of the flow of water in the tributary and its proximity to a TNW, and the functions performed by the tributary and all its adjacent wetlands. It is not appropriate to determine significant nexus based solely on any specific threshold of distance (e.g. between a tributary and its adjacent wetland or between a tributary and the TNW). Similarly, the fact an adjacent wetland lies within or outside of a floodplain is not solely determinative of significant nexus.

Draw connections between the features documented and the effects on the TNW, as identified in the Rapanos Guidance and discussed in the Instructional Guidebook. Factors to consider include, for example:

- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to carry pollutants or flood waters to TNWs, or to reduce the amount of pollutants or flood waters reaching a TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), provide habitat and lifecycle support functions for fish and other species, such as feeding, nesting, spawning, or rearing young for species that are present in the TNW?
- Does the tributary, in combination with its adjacent wetlands (if any), have the capacity to transfer nutrients and organic carbon that support downstream foodwebs?
- Does the tributary, in combination with its adjacent wetlands (if any), have other relationships to the physical, chemical, or biological integrity of the TNW?

Note: the above list of considerations is not inclusive and other functions observed or known to occur should be documented below:

- Significant nexus findings for non-RPW that has no adjacent wetlands and flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary itself, then go to Section III.D:
- Significant nexus findings for non-RPW and its adjacent wetlands, where the non-RPW flows directly or indirectly into TNWs. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D: The North Sulphur River totals 65,646 linear feet in the study area and is intermittent. Additionally, numerous ephemeral tributaries totaling 625,272 lineal feet have continuous ordinary high water marks that feed into the North Sulphur River. On said tributaries are 47 on channel ponds totaling 59.89 acres of open water. Wetland fringes associated with the ponds total 10 acres. All streams flow during and shortly after precipitation events allowing for biological and chemical contributions to the North Sulphur River which flows into Relatively Permanent Flow portions of the channel and eventually into the Sulphur River which is a TNW. Sediment, biota (including fish from on channel stock tanks) and organic matter are contributed to the North Sulphur River. Tributaries can also act as refugia during high flow events in the North Sulphur River. The tributaries and on channel wetlands also contribute as well as carry pollutants and flood waters to TNWs, can reduce amount of pollutants or flood water reaching a TNW, and transfer nutrients and organic carbon downstream.
- Significant nexus findings for wetlands adjacent to an RPW but that do not directly abut the RPW. Explain findings of presence or absence of significant nexus below, based on the tributary in combination with all of its adjacent wetlands, then go to Section III.D:

D.	DETERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL
	THAT APPLY):

	Bección III.D
	TERMINATIONS OF JURISDICTIONAL FINDINGS. THE SUBJECT WATERS/WETLANDS ARE (CHECK ALL APPLY):
1.	TNWs and Adjacent Wetlands. Check all that apply and provide size estimates in review area: TNWs: linear feet width (ft), Or, acres. Wetlands adjacent to TNWs: acres.
2.	RPWs that flow directly or indirectly into TNWs. Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary is perennial: Tributaries of TNW where tributaries have continuous flow "seasonally" (e.g., typically three months each year) are jurisdictional. Data supporting this conclusion is provided at Section III.B. Provide rationale indicating that tributary flows seasonally:
	Provide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: .
3.	Non-RPWs ⁸ that flow directly or indirectly into TNWs. Waterbody that is not a TNW or an RPW, but flows directly or indirectly into a TNW, and it has a significant nexus with a TNW is jurisdictional. Data supporting this conclusion is provided at Section III.C.
	Provide estimates for jurisdictional waters within the review area (check all that apply): Tributary waters: 690,918 linear feet and up to 45 width (ft). Other non-wetland waters: 59.89 acres of on channel ponds. Identify type(s) of waters: On channel ponds.
4.	Wetlands directly abutting an RPW that flow directly or indirectly into TNWs. ☐ Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands. ☐ Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Wetlands directly abutting an RPW where tributaries typically flow "seasonally." Provide data indicating that tributary is seasonal in Section III.B and rationale in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW:
	Provide acreage estimates for jurisdictional wetlands in the review area: acres.
5.	Wetlands adjacent to but not directly abutting an RPW that flow directly or indirectly into TNWs. Wetlands that do not directly abut an RPW, but when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisidictional. Data supporting this conclusion is provided at Section III.C.

⁸See Footnote #3.

		Provide acreage estimates for jurisdictional wetlands in the review area: 10 acres.
	6.	Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs. Wetlands adjacent to such waters, and have when considered in combination with the tributary to which they are adjacent and with similarly situated adjacent wetlands, have a significant nexus with a TNW are jurisdictional. Data supporting this conclusion is provided at Section III.C.
		Provide estimates for jurisdictional wetlands in the review area: acres.
	7.	Impoundments of jurisdictional waters. As a general rule, the impoundment of a jurisdictional tributary remains jurisdictional. ☐ Demonstrate that impoundment was created from "waters of the U.S.," (see 69.89 acres of on-channel ponds and associated fringe wetlands as detailed in this form), or ☐ Demonstrate that water meets the criteria for one of the categories presented above (1-6), or ☐ Demonstrate that water is isolated with a nexus to commerce (see E below).
Е.	SUC	LATED [INTERSTATE OR INTRA-STATE] WATERS, INCLUDING ISOLATED WETLANDS, THE USE, GRADATION OR DESTRUCTION OF WHICH COULD AFFECT INTERSTATE COMMERCE, INCLUDING ANY CH WATERS (CHECK ALL THAT APPLY): 10 which are or could be used by interstate or foreign travelers for recreational or other purposes. from which fish or shellfish are or could be taken and sold in interstate or foreign commerce. which are or could be used for industrial purposes by industries in interstate commerce. Interstate isolated waters. Explain: Other factors. Explain:
	Ider	ntify water body and summarize rationale supporting determination:
	<u> </u>	vide estimates for jurisdictional waters in the review area (check all that apply): Tributary waters: linear feet width (ft). Other non-wetland waters: acres. Identify type(s) of waters: Wetlands: acres.
F.		N-JURISDICTIONAL WATERS, INCLUDING WETLANDS (CHECK ALL THAT APPLY): If potential wetlands were assessed within the review area, these areas did not meet the criteria in the 1987 Corps of Engineers Wetland Delineation Manual and Great Plains Regional Supplement. Review area included isolated waters with no substantial nexus to interstate (or foreign) commerce. Prior to the Jan 2001 Supreme Court decision in "SWANCC," the review area would have been regulated based solely on the "Migratory Bird Rule" (MBR). Waters do not meet the "Significant Nexus" standard, where such a finding is required for jurisdiction. Explain: Numerous stock tanks constructed in uplands exist as well as stock tanks that are not connected to tributaries to the North Sulphur River. Isolated forested wetlands also exist which are not adjacent due to significant channel degradation of North Sulphur River and are no longer connected to or have interaction with the river. Other: (explain, if not covered above):
	facto	vide acreage estimates for non-jurisdictional waters in the review area, where the <u>sole</u> potential basis of jurisdiction is the MBR ors (i.e., presence of migratory birds, presence of endangered species, use of water for irrigated agriculture), using best professional ment (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet width (ft). Lakes/ponds: acres. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: acres.
	a fin	vide acreage estimates for non-jurisdictional waters in the review area that do not meet the "Significant Nexus" standard, where such ding is required for jurisdiction (check all that apply): Non-wetland waters (i.e., rivers, streams): linear feet, width (ft). Lakes/ponds: 83 acres upland ponds/stock tanks. Other non-wetland waters: acres. List type of aquatic resource: Wetlands: 3.8 acres.

 ⁹ To complete the analysis refer to the key in Section III.D.6 of the Instructional Guidebook.
 10 Prior to asserting or declining CWA jurisdiction based solely on this category, Corps Districts will elevate the action to Corps and EPA HQ for review consistent with the process described in the Corps/EPA Memorandum Regarding CWA Act Jurisdiction Following Rapanos.

SECTION IV: DATA SOURCES.

SUP	PORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked
and	requested, appropriately reference sources below):
\boxtimes	Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant:
\boxtimes	Data sheets prepared/submitted by or on behalf of the applicant/consultant.
	Office concurs with data sheets/delineation report.
	Office does not concur with data sheets/delineation report.
	Data sheets prepared by the Corps: .
	Corps navigable waters' study:
\boxtimes	U.S. Geological Survey Hydrologic Atlas:
	USGS NHD data.
	☑ USGS 8 and 12 digit HUC maps.
\boxtimes	U.S. Geological Survey map(s). Cite scale & quad name: Greenville NW, Celeste, Pike, Wolfe City, Gober, Ladonia, Honey Grove
and	Dodd City.
\boxtimes	USDA Natural Resources Conservation Service Soil Survey. Citation: Fannin.
\boxtimes	National wetlands inventory map(s). Cite name: See USGS quad map names.
	State/Local wetland inventory map(s):
	FEMA/FIRM maps:
	100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
\boxtimes	Photographs: Acrial (Name & Date): 2003-2005 and 2014-2016 FSA NAIP and 2015 Texas Ortho-imagery Project.
	or 🔀 Other (Name & Date): On site photos from 2006 delineation report and 2017 supplment.
	Previous determination(s). File no. and date of response letter:
	Applicable/supporting case law:
	Applicable/supporting scientific literature:
	Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD: