Shreveport Airport Tracts
Hollywood Avenue
Shreveport, Caddo Parish, Louisiana
August 13, 2015

Terracon Project No. EH157076



Prepared for: Shreveport Airport Authority Shreveport, LA

Prepared by:

Terracon Consultants, Inc. Baton Rouge, Louisiana

terracon.com



Environmental Facilities Geotechnical Materials

August 13, 2015



Mr. Stephen Price Shreveport Airport Authority 5103 Hollywood Avenue, Suite 300 Shreveport, LA 71109

C/O: Dennis Dean, P.E.

Re:

Preliminary WOUS Delineation

Shreveport Airport Tracts

Hollywood Drive

Shreveport, Caddo Parish, Louisiana

Terracon Project No. EH157076

Dear Mr. Price:

Terracon Consultants, Inc. (Terracon) is pleased to submit the enclosed Preliminary Waters of the United States (WOUS) Delineation report for the above-referenced site. On July 20, 2015, Terracon sent qualified wetland scientists to perform a delineation of the site to determine the presence/absence of jurisdictional WOUS.

Based on site conditions at the time of reconnaissance, it is Terracon's opinion that 1,783 linear feet of jurisdictional WOUS are present within the site; however, the U.S. Army Corps of Engineers (USACE) is the official agency to make the final determination of the location, type, and extent of jurisdictional WOUS. Should work be proposed within the jurisdictional area, coordination with the USACE to obtain coverage under a Section 10 or 404 permit may be required.

We appreciate the opportunity to be of service to you on this project. Our professionals provide a variety of environmental, geotechnical, construction materials, and facilities services locally, regionally and nationally. For more detailed information on all of Terracon's services please visit our website at www.terracon.com. If there are any questions regarding this report or if we may be of further assistance, please do not hesitate to contact Jessica Keasler at 225-239-2628 or by e-mail at Jessica.keasler@terracon.com.

Sincerely,

Terracon Consultants, Inc.

For Jessica R. Keasler, MS

Environmental Scientist

Ginger C. Horn, PWS

Approved Project Reviewer

Attachments

Terracon Consultants, Inc. 2822-B O'Neal Lane Baton Rouge, LA 70816
P [225] 344-6052 F [225] 344-6346 terracon.com

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EXECUTIVE SUMMARY

Terracon Consultants, Inc. (Terracon) conducted a delineation of waters of the United States (WOUS) for two tracts within the Shreveport Airport property, a 55-acre tract and a 93-acre tract (the site).

Terracon's qualified wetland scientists, Ms. Jessica Keasler and Mr. Lem Dial conducted a site visit on July 20, 2015 in order to determine the presence of potentially jurisdictional WOUS within the site.

The site was reviewed for potential WOUS using the routine determination methodology published in the 1987 Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1, online edition) as amended by the Atlantic and Gulf Coastal Plain Regional Supplement manual. The site was also reviewed for potential WOUS, including wetlands, following the June 5, 2007 guidance form the U.S. Environmental Protection Agency and the USACE as presented in the USACE Jurisdictional Determination Form Instructional Guidebook.

Opinion

Terracon's opinion is that there is a total of 1,783 linear feet of jurisdictional WOUS within the site, of which, all was classified as ephemeral stream and none as wetland habitat. Additionally, no non-jurisdictional WOUS were identified. However, the U.S. Army Corps of Engineers (USACE) is the official agency to make the final determination of the location, type, and extent of jurisdictional WOUS. According to the guidelines, non-wetland jurisdictional WOUS are identified according to their flow regime as Traditional Navigable Waters (TNW), Relatively Permanent Waters (RPW), and Non Relatively Permanent Waters (NRPW).

Terracon's opinion of jurisdictional and non-jurisdictional waters is summarized as follows:

- A total of 1,783 linear feet jurisdictional non-wetland WOUS were identified on site for a total of 0.0056 square feet (Table 1).
- No jurisdictional wetlands were identified on site.
- No non-jurisdictional waters were identified on site.

This opinion is part of an executive summary and incomplete without the remainder of the Preliminary WOUS Delineation report.

Shreveport Airport Tracts ■ Shreveport, Louisiana August 13, 2015 ■ Terracon Project No. EH157076



1.0 INTRODUCTION

Terracon Consultants, Inc. (Terracon) conducted a preliminary delineation of waters of the United States (WOUS) for two tracts within the Shreveport Airport property, a 55-acre tract and a 93-acre tract (the site), as shown on Exhibits 1 & 2 in Appendix A. Terracon conducted the preliminary WOUS delineation in order to determine the jurisdiction of WOUS on the site. The following Exhibits are included in Appendix A:

- USGS Topographic Vicinity Map (Exhibit 1)
- Site Diagram (Exhibit 2)
- Detail Site Diagram 55-Acre Tract (Exhibit 3)
- Detail Site Diagram 93-Acre Tract (Exhibit 4)
- National Wetland Inventory Map (Exhibit 5)
- Soils Map (Exhibit 6)
- Flood Insurance Rate Map (Exhibit 7)

Terracon's qualified wetland scientists, Ms. Jessica Keasler and Mr. Lem Dial conducted a site visit on July 20, 2015 in order to determine the presence of potentially jurisdictional WOUS within the site.

The site was reviewed for potential WOUS using the routine determination methodology published in the 1987 Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1, online edition) as amended by the Atlantic Gulf Coast Regional Supplement manual. The site was also reviewed for potential WOUS, including wetlands, following the June 5, 2007 guidance form the U.S. Environmental Protection Agency and the USACE as presented in the USACE Jurisdictional Determination Form Instructional Guidebook.

The observations and opinions contained in this report are based on guidance, regulations, and data available at the time of preparation as well as site conditions encountered at the time of the site reconnaissance. Guidance, regulations, data furnished by others, and site conditions are dynamic and subject to changes beyond the control of Terracon. A future evaluation may yield differing results.

This Preliminary WOUS Delineation report is prepared for the exclusive use and reliance of **Shreveport Airport Authority**. Use or reliance by any other party except a governmental entity having jurisdiction over the site is prohibited without the written authorization of **Shreveport Airport Authority** and Terracon.

Reliance on the Preliminary WOUS Delineation by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, Preliminary WOUS Delineation report, and Terracon's Agreement for Services. The limitation of liability defined in

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the Agreement for Services is the aggregate limit of Terracon's liability to the client and all relying parties.

2.0 PRELIMINARY DATA GATHERING AND ANALYSIS

Prior to performing the site visit, several map and aerial photograph resources were reviewed to assist with identifying suspect WOUS, including wetlands, at the project site. Each source of data is described below.

2.1 Topographic Map

The United States Department of the Interior Geologic Survey (USGS) 7.5-Minute Topographic Map of the project site was reviewed to identify drainages or suspect WOUS within the project site. A portion of the Shreveport West, LA quadrangle can be seen on Exhibit 1 in Appendix A. The USGS map shows both tracts to be undeveloped. The USGS map shows a roadway extending through the 55-acre tract, which is not currently present; additionally for this tract the map shows two areas of vegetation/woods. The USGS map does not show other apparent drainages or suspect WOUS occurring on the project site.

2.2 National Wetlands Inventory Map

The National Wetlands Inventory (NWI) Map of the project site was reviewed to identify suspect wetland areas. The map for the project site was published by the U.S. Department of the Interior's Fish and Wildlife Service (USFWS) and depicts suspect wetland areas based on stereoscopic analysis of high altitude aerial photographs. A NWI map is included as Exhibit 5 in Appendix A. The review of the NWI map does not indicate the presence of suspect wetland areas occurring on the project site.

2.3 Soil Survey

Data from the soil survey of Caddo Parish, Louisiana, the U.S. Department of Agriculture (USDA) soil data mart, and the Natural Resources Conservation Service (NRCS) web soil survey was reviewed to identify soil types, including hydric soils. Hydric soil is one of the three essential characteristics of a wetland according to the USACE. Data for the soil survey was compiled by the USDA Soil Conservation Service, now known as the NRCS, in 2014. A soil survey map is included as *Exhibit 6* in *Appendix A*.

The following soil types were identified within the project area on the soil survey map:

Keithville very fine sandy loam The Keithville series consists of deep, moderately well
drained, very slowly permeable soils that formed in loamy over clayey sediment of Tertiary
age. These soils are on broad nearly level or gently sloping uplands of the coastal plains.

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Keithville soils are saturated above the clayey layers to a depth of 2 to 3 feet below the surface for intermittent periods totaling 2 to 6 weeks during the winter and early spring.

- Metcalf-Timpson complex The Metcalf series consists of deep, somewhat poorly drained, very slowly permeable soils that formed in Pliestocene age loamy marine or alluvial sediments over Tertiary age clayey deposits. These soils are on broad level, nearly level marine or stream terraces on the Coastal Plain. The Timpson series consists of very deep, moderately drained soils. These nearly level soils formed in loamy and clayey alluvial sediments on Pleistocene age marine or fluvatile terraces overlying the Wilcox Formation.
- Meth fine sandy loam The Meth series consists of very deep, well drained, moderately slowly permeable soils that formed in thick loamy and clayey sediments on Tertiary age uplands. These soils are on broad sloping coastal plains. Water runs off the surface at a medium rate.

The 2014 Hyrdric Soils list for Caddo Parish did not include any of the listed soil series.

2.4 FEMA Flood Insurance Rate Map

Terracon downloaded and reviewed Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM) Panel Numbers 22017X0454H and 22017C0458H. According to the FIRM panels, the site is located outside of the 100-year and 500-year floodplains. A FEMA Map is included as Exhibit 7 in Appendix A.

2.5 Aerial Photographs

Terracon reviewed aerial photographs to review suspect WOUS, including wetland areas that may be present on the project site. Aerial photographs were available for 1998, 2004, 2007, 2012 and 2013 from the Louisiana Department of Natural Resources (LDNR) Strategic Online Natural Resources Information System (SONRIS). In all of the photographs reviewed, the site and surrounding area had characteristics similar to the current conditions. No evidence of suspect wetlands was observed in the aerial photographs.

3.0 FIELD METHODS

Terracon wetland scientists conducted a reconnaissance of the site to characterize existing conditions and identify the presence/absence of potentially jurisdictional WOUS. Geographic Information System (GIS) software was used to analyze collected features, calculate areas, and generate figures provided in Appendix A.

The site was reviewed for potentially jurisdictional WOUS (including wetlands) using the routine determination methodology published in the 1987 Corps of Engineers Wetland Delineation Manual (Technical Report Y-87-1, online edition) as amended by the Atlantic and Gulf Coastal Plain Regional Supplement manual. The site was also reviewed for potential WOUS, including

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wetlands, following the June 5, 2007 guidance form the U.S. Environmental Protection Agency and the USACE as presented in the USACE Jurisdictional Determination Form Instructional Guidebook. Following the June 5, 2007 guidance, if present, the boundaries of potential wetlands would have been placed at the point where one or more of the field indicators of wetlands were no longer observed. If present, the boundaries of streams and other open water bodies were determined using the OHWM as described in the June 5, 2007 guidance.

3.1 Wetland Field Methods

Wetlands generally have three essential characteristics: hydrophytic (water-loving) vegetation, hydric soils, and wetland hydrology. During the site reconnaissance, Terracon personnel traversed the site and recorded observations with attention paid to suspect areas if they were identified on NWI maps and aerial photographs prior to the site visit. Vegetation and hydrology observations were performed randomly throughout the site where access was permitted and soils were evaluated to determine if wetland characteristics were present. Data regarding the three essential characteristics was gathered within observed suspect wetland areas to further delineate boundaries.

3.1.1 Vegetative Community

Suspect areas were visually observed to determine the species, when possible, and absolute percentage of ground cover for five strata of plant community types. Herbs were generally observed within a five-foot radius, shrubs/saplings within a fifteen-foot radius, and trees and vines within a thirty-foot radius of the observation location. Areas representing different vegetative communities were identified throughout the project site and a plant community assessment was performed in each vegetative community.

For each species of vegetation observed, wetland indicator status was evaluated. The indicator status was determined using the USACE National Wetlands Plant List (NWPL) version 3.2. The NWPL can be found at http://wetland_plants.usace.army.mil. Indicator categories for vegetation are listed below:

- Obligate Wetland (OBL) occur almost always (estimated probability greater than 99%) under natural conditions in wetlands.
- Facultative Wetland (FACW) usually occur in wetlands (estimated probability 67-99%) but occasionally found in non-wetlands.
- Facultative (FAC) equally likely to occur in wetlands or non-wetlands (estimated probability 34-66%).
- Obligate Upland (UPL) rarely occur in wetlands, but occur almost always (estimated probability greater than 99%) under natural conditions in non-wetlands.





The percent cover of each stratum was determined and dominance was evaluated. Dominant species were the most abundant species that accounted for more than 20 percent of the absolute percent coverage of the stratum. The number of dominant species with an indicator status of OBL, FACW, and/or FAC was compared to the total number of dominant species across all strata. Typically, when more than 50 percent of the dominant species had an indicator status of OBL, FACW, and/or FAC, hydrophytic vegetation was present.

If the percentage of dominant species with an indicator status of OBL, FACW, and/or FAC was less than 50 percent, prevalence index and morphological adaptations may have been evaluated to confirm if hydrophytic vegetation was present or absent.

3.1.2 Hydric Soils

After Terracon evaluated wetland vegetation, subsurface soil samples were collected. The samples were collected to a depth of approximately 16 inches below ground surface (or until rock was encountered) and were visually compared to Munsell Soil Color Charts which aided in the evaluation of hydric soil characteristics. The soil samples were further examined for hydric soil indicators including, but not limited to, histosol, thick dark surface, sandy gleyed matrix, sandy redox, loamy gleyed matrix, redox dark surface, and/or redox depressions. If these or other hydric soil indicators were observed in the subsurface soil sample, the observation location was considered to have hydric soil.

3.1.3 Wetland Hydrology

Visual indicators of wetland hydrology were evaluated. Examples of primary wetland hydrology indicators include, but are not limited to surface water, high water table, soil saturation, water marks, sediment deposits, drift deposits, iron deposits, inundation visible on aerial imagery, sparsely vegetated concave surface, and water-stained leaves. If at least one primary or two secondary indicators were observed, the observation location was considered to have wetland hydrology.

3.2 Non-Wetland WOUS Field Methods

Terracon recorded observations of non-wetland site features that may be considered a jurisdictional WOUS. If a potential jurisdictional WOUS was identified, observations regarding its characteristics were recorded. Potentially jurisdictional non-wetland WOUS were generally evaluated based on the following characteristics:

Flow regime

- Perennial flowing water year-round during a typical year
- Intermittent flowing water during certain times of the year (groundwater supports streamflow)
- Ephemeral flowing water for a short duration during and after a precipitation event (groundwater is not a source for streamflow)





- OHWM The limit line established by fluctuation of a water surface
- Bank shape
 - Undercut banks overhang the channel
 - Steep bank slope greater than 30 degrees
 - Gradual bank slope equal to or less than 30 degrees
- Aquatic Habitat
 - Pool deep portion of stream where water flows slower
 - Riffle shallow portion of stream with swift flow over rock or coarse substrate producing turbulence on the surface
 - Run -- section of stream with little or no turbulence on the surface

4.0 FIELD OBSERVATIONS

A total of 9 sampling points documenting existing soil and vegetation conditions were established during the field investigation (Exhibits 3 and 4, Appendix A). Each sampling point reflects representative vegetative communities occurring on the site at the time of the investigation. A shovel/auger test was used as the primary tool to sample the soils to a minimum depth of 16 inches. A Munsell color chart was utilized to evaluate the soil at each station, and the results are documented in Appendix C.

The majority of the site for both tracts was of an herbaceous community that is periodically mowed. Neither tract appeared to have been mowed recently. Within the 55-acre tract, a wooded area was observed in the vicinity of a stream, and a few trees were observed within the tract outside of this area.

5.0 PRINCIPAL FINDINGS OF THE INVESTIGATION

Terracon's opinion is that there is a total of 1,783 linear feet of jurisdictional WOUS within the site, of which, all was classified as ephemeral stream and none as wetland habitat. Additionally, no non-jurisdictional WOUS were identified. However, the U.S. Army Corps of Engineers (USACE) is the official agency to make the final determination of the location, type, and extent of jurisdictional WOUS. According to the guidelines, non-wetland jurisdictional WOUS are identified according to their flow regime as Traditional Navigable Waters (TNW), Relatively Permanent Waters (RPW), and Non Relatively Permanent Waters (NRPW).

Terracon's opinion of jurisdictional and non-jurisdictional waters is summarized as follows:

- A total of 1,783 linear feet jurisdictional non-wetland WOUS were identified on site for a total of 0.0056 acre (Table 1).
- No jurisdictional wetlands were identified on site.
- No non-jurisdictional waters were identified on site.

Preliminary WOUS Delineation
Shreveport Airport Tracts ■ Shreveport, Louisiana
August 13, 2015 ■ Terracon Project No. EH157076

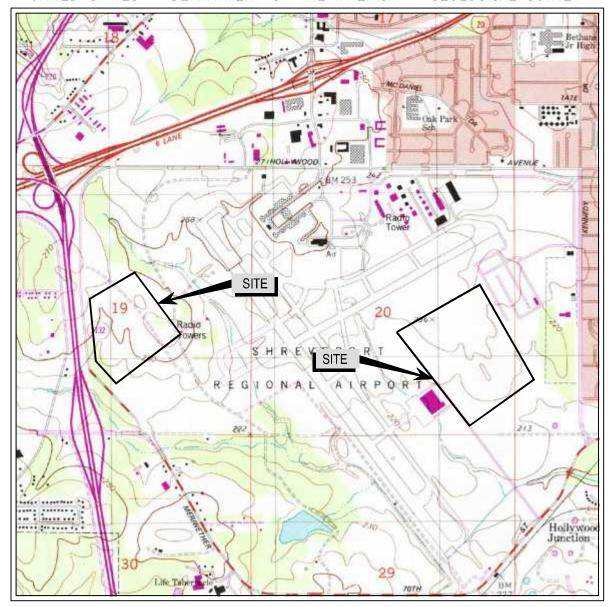


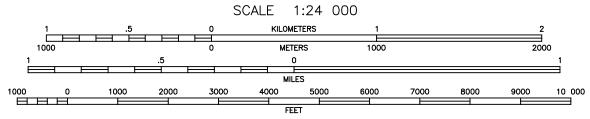
Table 1. Opinion of Jurisdictional Wetlands on the Site

Name	USACE Classification	Flow Regime	Length (feet)	Average Width (feet)	Area (acres)
55-Acre Ephemeral Stream	jurisdictional	Ephemeral	1,148	2	0.0036
93-Acre Ephemeral Stream	jurisdictional	Ephemeral	365	2	0.002
Total	-	-	1,783	-	0.0056

APPENDIX A EXHIBITS

UNITED STATES - DEPARTMENT OF THE INTERIOR - GEOLOGICAL SURVEY





CONTOUR INTERVAL 10 FEET NATIONAL GEODETIC VERTICAL DATUM OF 1929

QUADRANGLE SHREVEPORT WEST, LA 1980 PR1982

7.5 MINUTE SERIES (TOPOGRAPHIC)

*INDICATES WHICH MAP SITE IS LOCATED ON

Project Mngr:	JRK
Drawn By:	RLW
Checked By:	JRK/MRF
Approved By:	IDK

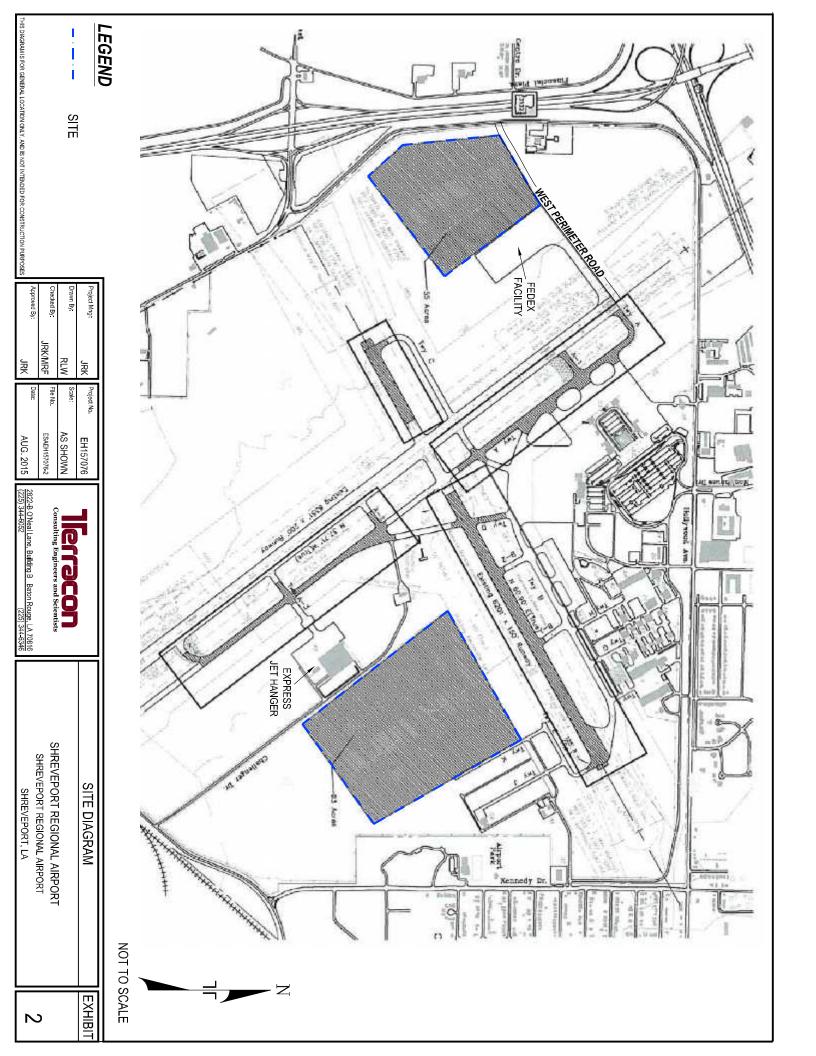
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Date:	JULY 2015

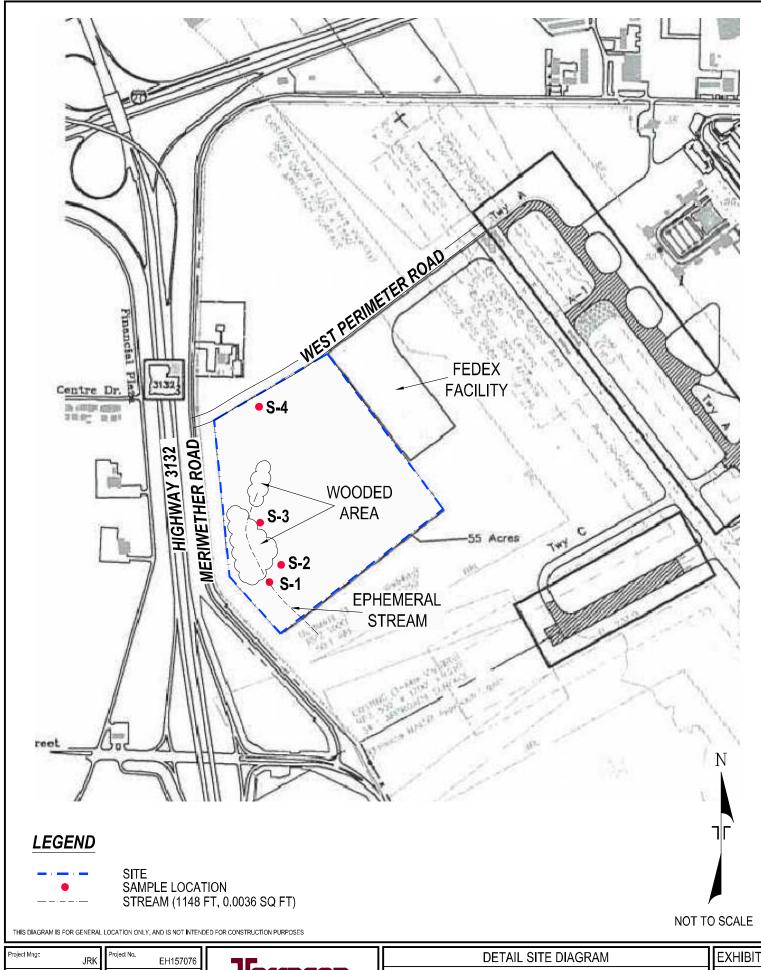
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Consulting Engineers and Scientists	
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822-B O'Neal Lane, Building B Baton Rouge, LA 70816	ı
225) 344-6052 (225) 344-6346	П

TOPOGRAPHIC VICINITY MAP
SHREVEPORT REGIONAL AIRPORT
SHREVEPORT REGIONAL AIRPORT
SHREVEPORT, LA

Ν

EXHIBIT





Project Mngr	JRK
Drawn By:	RLW
Checked By:	JRK/MRF
Approved By:	.IRK

 Project No.
 EH157076

 Scale:
 AS SHOWN

 File No.
 ESAEH157076-3

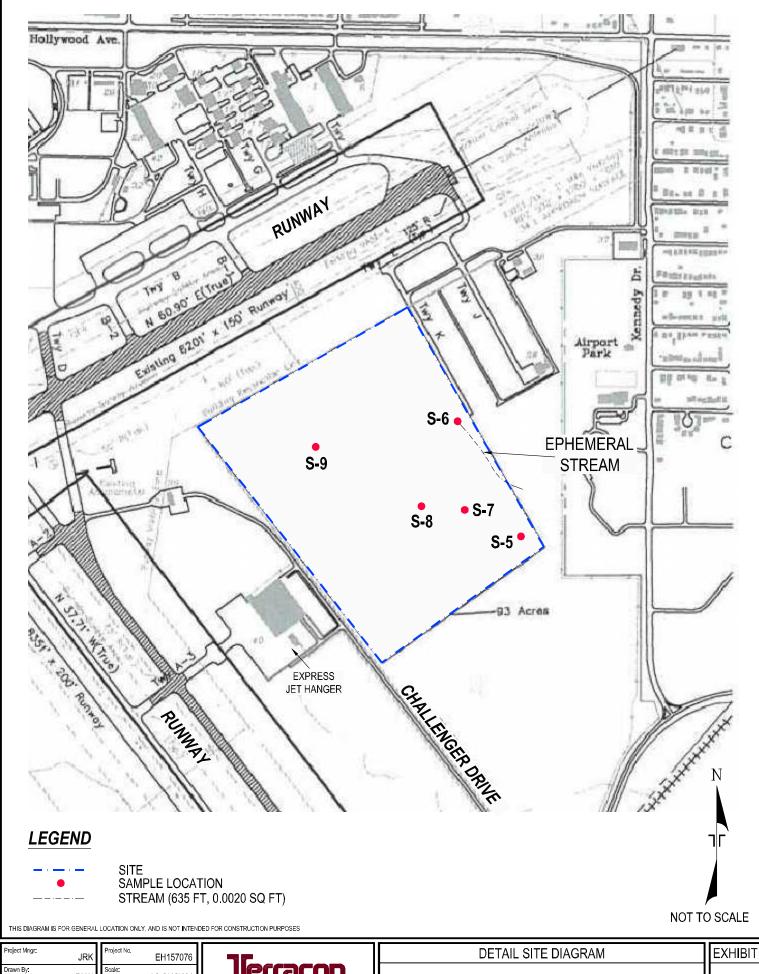
 Date:
 AUG. 2015



SELECTE DIAGRAM

SHREVEPORT REGIONAL AIRPORT SHREVEPORT REGIONAL AIRPORT SHREVEPORT, LA EXHIBIT

3

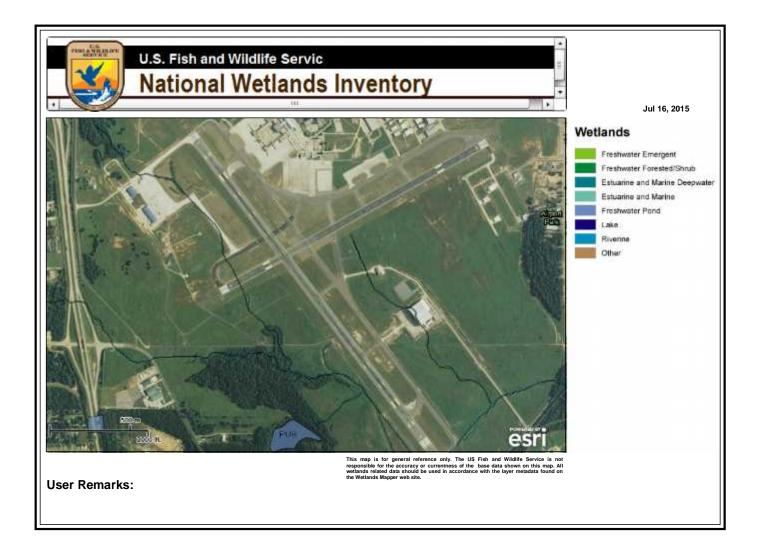


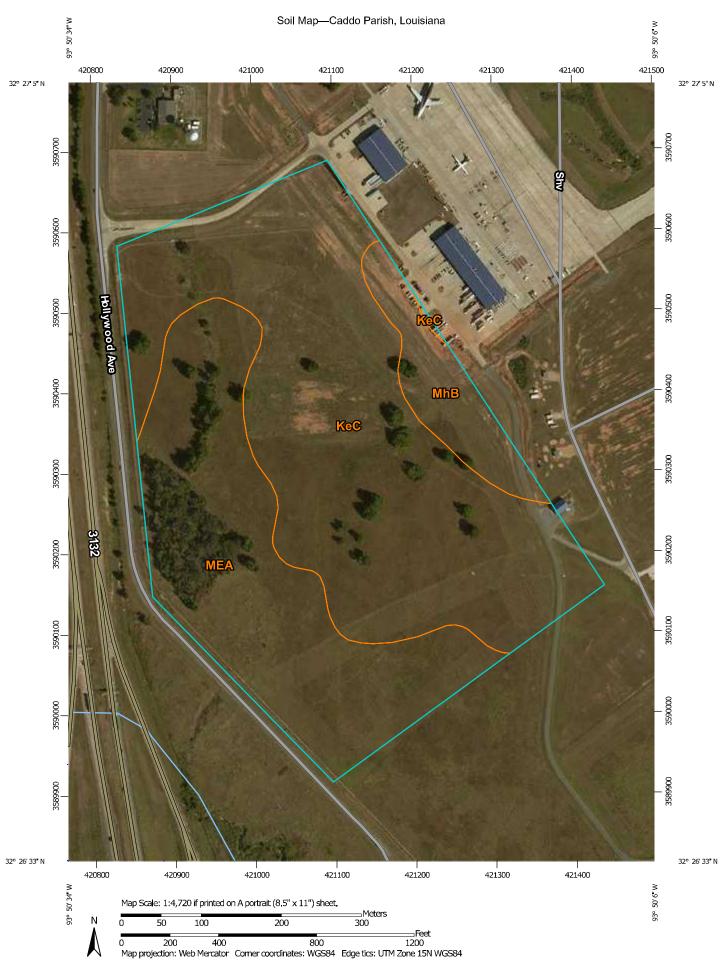
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AS SHOWN File No. ESAEH157076-4 Date: AUG. 2015 2822 O'Neal Lane, Building B Baton Rouge, LA 70816 (225) 344-6052 (225) 344-6346

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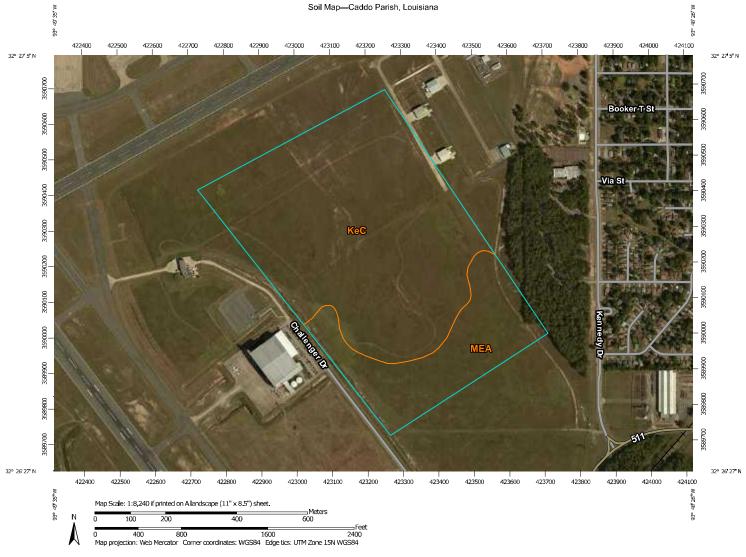
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Map Unit Legend

Caddo Parish, Louisiana (LA017)					
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
KeC	Keithville very fine sandy loam, 1 to 5 percent slopes	38.9	56.5%		
MEA	Metcalf-Timpson complex, 0 to 2 percent slopes	24.7	35.9%		
MhB	Meth fine sandy loam, 1 to 3 percent slopes	5.2	7.6%		
Totals for Area of Interest	- 1	68.8	100.0%		



Natural Resources
Conservation Service

Web Soil Survey National Cooperative Soil Survey 7/16/2015 Page 1 of 3

Map Unit Legend

Caddo Parish, Louisiana (LA017)					
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI		
KeC	Keithville very fine sandy loam, 1 to 5 percent slopes	88.7	75.0%		
MEA	Metcalf-Timpson complex, 0 to 2 percent slopes	29.5	25.0%		
Totals for Area of Interest		118.3	100.0%		

MAP LEGEND

Area of Interest (AOI)

Area of Interest (AOI)

Soils

Soil Map Unit Polygons Soil Map Unit Lines

Soil Map Unit Points

Special Point Features Blowout

(3) 200

Borrow Pit

× Clay Spot

Closed Depression

0 36

Gravel Pit Gravelly Spot

A 0

Landfill Lava Flow ٨

4

Marsh or swamp

⊛

Mine or Quarry Miscellaneous Water

0 0 Perennial Water

Rock Outcrop

+

Saline Spot Sandy Spot

-

Severely Eroded Spot

Sinkhole ٥

Slide or Slip ъ

Sodic Spot

Spoil Area 봠

Stony Spot 0

> Very Stony Spot Wet Spot

4

Other Δ ..

Special Line Features

Water Features

Streams and Canals

Transportation

Rails \rightarrow

Interstate Highways

US Routes Major Roads

Local Roads

Background

Aerial Photography 200

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service Web Soil Survey URL: http://websoilsurvey.nrcs.usda.gov Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

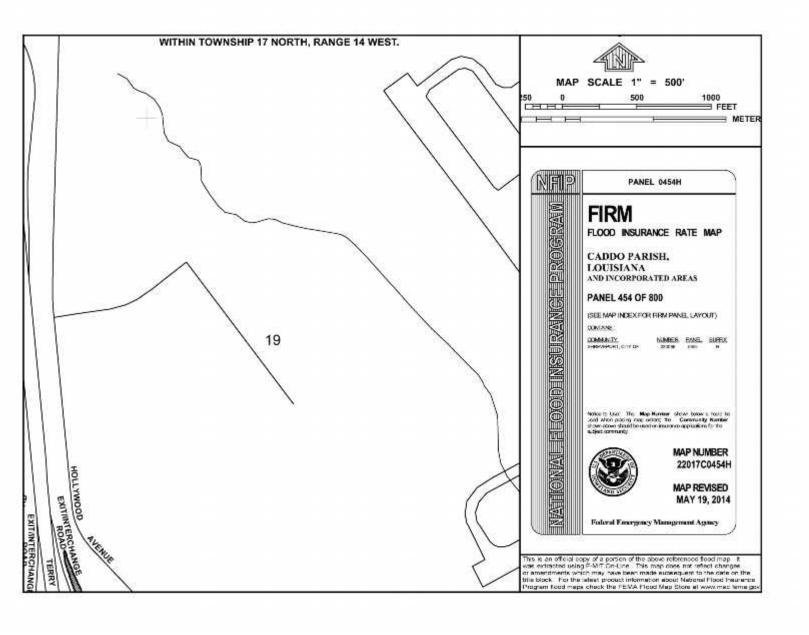
Soil Survey Area: Caddo Parish, Louisiana Survey Area Data: Version 7, Sep 26, 2014

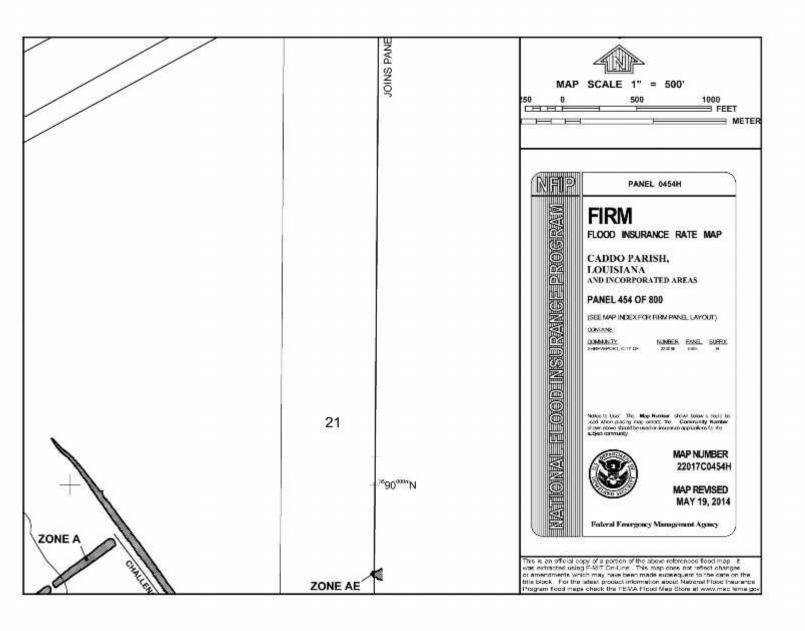
Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

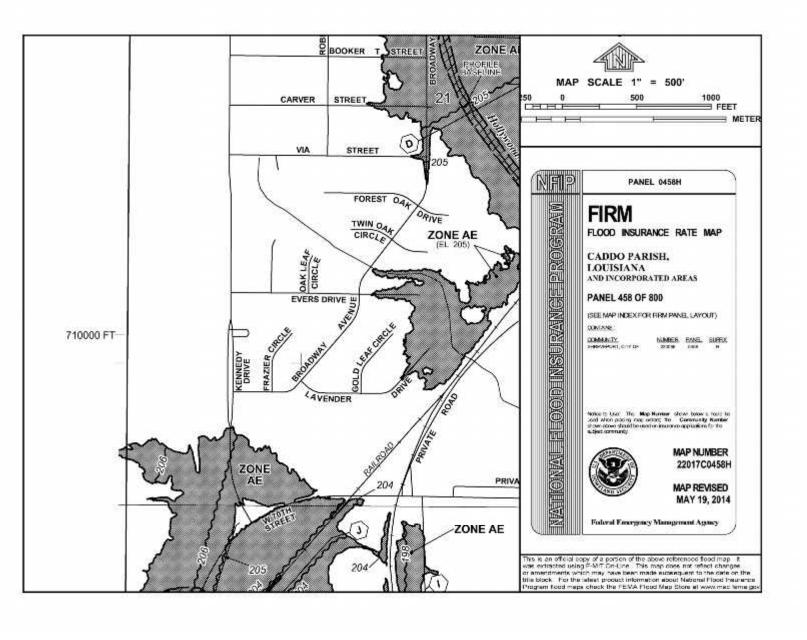
Date(s) aerial images were photographed: Sep 25, 2013—Nov 1, 2013

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.









APPENDIX B PHOTO LOG





Photo 1 View east across 55-acre site.



Photo 2 View of soil profile at S-1.



Photo 3 View of southern end of wooded area on 55-acre site.



Photo 4 View of soil profile at S-2.



Photo 5 View of stream channel within wooded area in 55-acre site.



Photo 6 View of soil profile at S-3.





Photo 7 View of soil profile at S-4.



Photo 9 View of soil profile at S-5.



Photo 11 View of soil profile at S-6.



Photo 8 Typical view of 93-acre site facing north.



Photo 10 View of willow trees at head of ephemeral stream on 93-acre site.



Photo 12 View of soil profile at S-7.





Photo 13 View of soil profile at S-8.



Photo 14 View of soil profile at S-9.

APPENDIX C DATA FORMS

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: 55-Acre / EH157076	City/	County: Shreveport / C	addo Parish	Sampling Date: 7/20/15		
Applicant/Owner: Shreveport Airport	5.54.44.5.56	7.11 - 15 - 17 - 17 - 17 - 17 - 17 - 17 -		Sampling Point: S-1		
Investigator(s): Jessica Keasler & L		Section, Township, Range: 19 T17N R14W				
Landform (hillslope, terrace, etc.): Flat		al relief (concave, convex, no				
Subregion (LRR or MLRA): LRRP 133			CAROLINA CARACTERIST CONTRACTOR C	Datum: 84		
Soil Map Unit Name: Metcalf-timpsor	n complex	Long.		ation: none		
Are climatic / hydrologic conditions on the		Vae X No. /If				
Are Vegetation, Soil, or Hy				resent? Yes X No		
Are Vegetation, Soil, or Hy			olain any answe			
SUMMARY OF FINDINGS – Atta	ich site map showing sai	mpling point location	s, transects	, important features, etc.		
Hydrophytic Vegetation Present?	Yes No _X	is the Complet Asso				
Hydric Soil Present?	Yes No_X	Is the Sampled Area within a Wetland?	Vac	No X		
Wetland Hydrology Present?	Yes_X No	within a vyetanu?	168	NO.		
HYDROLOGY						
Wetland Hydrology Indicators:	IN THE SECTION ASSESSMENT THAT	S	econdary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is re	quired; check all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Vegetated Concave Surface (B8) Drainage Patterns (B10)			
High Water Table (A2)	Marl Deposits (B15) (LR					
Saturation (A3)	Hydrogen Sulfide Odor	70 S 1754	Moss Trim Li			
Water Marks (B1)	그리 그리 내 이 이번에 되었다면 하는데 하는데 하지 않는데 하지 않는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하는데 하	along Living Roots (C3)	Crayfish Burrows (C8)			
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced In Recent Iron Reduction in	700 17:08				
Algal Mat or Crust (B4)	Thin Muck Surface (C7)					
Iron Deposits (B5)	Other (Explain in Remai	e same	Shallow Aqui			
Inundation Visible on Aerial Imagery			FAC-Neutral	C025-1400-10		
Water-Stained Leaves (B9)			Sphagnum m	noss (D8) (LRR T, U)		
Field Observations:	000 W 0 0 2000 00 00					
	No X Depth (inches):					
	No X Depth (inches):			X		
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hy	drology Presen	t? Yes_^_ No		
Describe Recorded Data (stream gauge,	monitoring well, aerial photos, pr	evious inspections), if availa	ble:			
Remarks:						

	Absolute			Dominance Test worksheet:		
Tree Stratum (Plot size:)	7.00	Species?		Number of Dominant Species		
1. Loblolly Pine (Pinus taeda)	10	<u>Y</u>	FAC	That Are OBL, FACW, or FAC: 2 (A)		
southern red oak (Quercus falcata)	15	<u>Y</u>	FACU	Total Number of Dominant Species Across All Strata: 4 (B)		
4						
5				Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)		
6				Prevalence Index worksheet:		
7				Total % Cover of: Multiply by:		
8	25	10.000		OBL species 0 x 1 =		
42.5		= Total Cov		FACW species _5		
50% of total cover: _12.5	20% of	total cover		FAC species 40 x 3 = 120		
Sapling/Shrub Stratum (Plot size:)				FACU species 55 x 4 = 220		
1				UPL species 0 x5=		
2				Column Totals: 100 (A) 350 (B)		
3				Column rotals (A) (B)		
4				Prevalence Index = B/A = 3.5		
5				Hydrophytic Vegetation Indicators:		
6				1 - Rapid Test for Hydrophytic Vegetation		
7				2 - Dominance Test is >50%		
8				3 - Prevalence Index is ≤3.01		
		= Total Cov	er	Problematic Hydrophytic Vegetation¹ (Explain)		
50% of total cover:	-			Trobelliatic riydrophytic vegetation (Explain)		
Herb Stratum (Plot size:) 1. globe flatsedge (Cyperus echinatus)	5	N	FAC	Indicators of hydric soil and wetland hydrology must		
A Transport of the Control of the Co	5	N	FACW	be present, unless disturbed or problematic.		
2. ricefield flat sedge (Cyperus iria)	-	Y	1.00	Definitions of Four Vegetation Strata:		
3. liverseed grass (Urochloa ramosa)	35		FACU	Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or		
broom sedge (Andropogon virginicus)	25	<u>Y</u>	FAC	more in diameter at breast height (DBH), regardless of		
5. goose grass (Eleusine indica)	5	<u>N</u>	FACU	height.		
6,				Sapling/Shrub - Woody plants, excluding vines, less		
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.		
8				Herb - All herbaceous (non-woody) plants, regardless		
9				of size, and woody plants less than 3.28 ft tall.		
10				Woody vine - All woody vines greater than 3.28 ft in		
11				height.		
12				2		
	75	= Total Cov	er			
50% of total cover: 37.5	20% of	total cover	15			
Woody Vine Stratum (Plot size:)						
1						
2						
3						
4						
				A PORTON DE LA PORTO		
5		= Total Cov		Hydrophytic Vegetation		
5		- Tutal Cov	er	vegetation		
5 50% of total cover:				Present? Yes No X		

Profile Desc	ription: (Describe	to the dep	th needed to doo	ument the	indicator	or confirm	n the absence o	f indicators.)
Depth	Matrix	%		dox Feature		12		
(inches) 0-14	Color (moist) 10YR 5/3	80	Color (moist) 10YR 3/2	<u>%</u> 15	Type'	Loc²	Sand Sand	Remarks
· · · · · ·			5YR 3/4	2			Sand	
~			10YR 6/8	3			Sand	-
14-19	10YR 6/1	70	2.5YR 4/8	30	-		Clay	<u> </u>
11 10	101110/1		2.011(4/0	- 00			Oldy	
Hydric Soil Histosol Histic Es Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Depleted Thick Da Coast Pl Sandy M Sandy R Stripped Dark Su	bipedon (A2) stic (A3) en Sulfide (A4) d Layers (A5) Bodies (A6) (LRR F acky Mineral (A7) (Li esence (A8) (LRR V, ack (A9) (LRR V, T) d Below Dark Surface ark Surface (A12) rairie Redox (A16) (I acky Mineral (S1) (I acky Mineral (S1) (I acky Mineral (S4) acky Mineral (S6) acky Mine	p, T, U) RR P, T, U J) E (A11) MLRA 150 LRR O, S)	Polyvalue Polyvalue Thin Dark Loamy Mu Loamy Gle Depleted M Redox Dai Redox Dei Redox Dei Hard (F10) Depleted C Iron-Mang Umbric Su Delta Ochi Reduced N Piedmont	nerwise not Below Surfa Surface (S9 cky Mineral eyed Matrix (F3) rk Surface (F3) rk Surface (F4) Dark Surface (F11) anese Mass rface (F13) ric (F17) (MI) /ertic (F18)	ed.) ice (S8) (L) (LRR S, (F1) (LRR (F2) 6) (MLRA 1: es (F12) ((LRR P, T LRA 151) (MLRA 15 Golls (F19)	.RR S, T, U T, U) (O) (D) (D) (D) (M) (M) (M)	Indicators for J cm Mu 2 cm Mu 2 cm Mu Reduced Piedmor Anomald (MLRA Very Shill Other (E	PL=Pore Lining, M=Matrix. or Problematic Hydric Soils ³ : uck (A9) (LRR O) uck (A10) (LRR S) d Vertic (F18) (outside MLRA 150A,B) nt Floodplain Soils (F19) (LRR P, S, T) ous Bright Loamy Soils (F20) A 153B) vent Material (TF2) allow Dark Surface (TF12) explain in Remarks) tors of hydrophytic vegetation and and hydrology must be present, as disturbed or problematic.

WETLAND DETERMINATION DATA FORM - Atlantic and Gulf Coastal Plain Region

Project/Site: 55-Acre / EH157076	City/C	county: Shreveport / Ca	addo Parish	Sampling Date: 7/20/15		
Applicant/Owner: Shreveport Airport		State: LA Sampling Point: 2				
Investigator(s): Jessica Keasler & Le	m Dial Section	on, Township, Range: 19				
Landform (hillslope, terrace, etc.): Flat	Local	relief (concave convex no	ne). None	Slope (%): <1		
Subregion (LRR or MLRA): LRRP 133B				Datum: 84		
Soil Map Unit Name: Metcalf-timpson	complex	Long.	NWI classific			
Are climatic / hydrologic conditions on the sit		as X No /If				
Are Vegetation, Soil, or Hydro				resent? Yes X No		
Are Vegetation, Soil, or Hydro			olain any answe			
SUMMARY OF FINDINGS – Attac	h site map showing san	npling point location	s, transects	, important features, etc.		
Hydrophytic Vegetation Present? Y	es No _X	Is the Sampled Area				
Hydric Soil Present? Y	es No_X	within a Wetland?	Ves	No X		
Wetland Hydrology Present? Y	es X No	within a rectang:	1372			
HYDROLOGY		- 12	11 Sec. 1	V000		
Wetland Hydrology Indicators:	2 PR 12 1911-0010 1111	S	econdary Indica	tors (minimum of two required)		
Primary Indicators (minimum of one is requ	ired; check all that apply)		Surface Soil	Cracks (B6)		
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Veg	etated Concave Surface (B8)		
High Water Table (A2)	Marl Deposits (B15) (LRI	The state of the s				
Saturation (A3)	Hydrogen Sulfide Odor (N N N N	Moss Trim Li	FF1067674 F		
Water Marks (B1)	Oxidized Rhizospheres a			Water Table (C2)		
Sediment Deposits (B2) Drift Deposits (B3)	Presence of Reduced Iro Recent Iron Reduction in	55 15 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5		ows (Co) sible on Aerial Imagery (C9)		
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	[Geomorphic	[사용] (설립 : 10 10 10 10 10 10 10 10 10 10 10 10 10		
Iron Deposits (B5)	Other (Explain in Remark	ks) [Shallow Aqui	N 300 BULLET - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -		
Inundation Visible on Aerial Imagery (B			FAC-Neutral	C025-1502050		
Water-Stained Leaves (B9)			Sphagnum n	oss (D8) (LRR T, U)		
Field Observations:	2011 NWS - 32 - 2012/00 10 10					
	No X Depth (inches):					
	No X Depth (inches): No X Depth (inches):			X		
Saturation Present? Yes (includes capillary fringe)	No X Depth (inches):	Wetland Hy	drology Presen	t? Yes_^_ No		
Describe Recorded Data (stream gauge, m	onitoring well, aerial photos, pre	vious inspections), if availa	ble:			
Remarks:						

VEGETATION	(Four Strata	- Use scientific names of pl	ants.
------------	--------------	------------------------------	-------

Samp	ling Point:	2	
heet:			
ecies FAC:	0	(A)	

		Dominant		Dominance Test worksheet:			
Tree Stratum (Plot size:)		Species?		Number of Dominant Species			
1				That Are OBL, FACW, or FAC: 0 (A)			
2				Total Number of Dominant			
3				Species Across All Strata: 2 (B)			
4				Percent of Dominant Species			
5				That Are OBL, FACW, or FAC: 0 (A/B			
6				Prevalence Index worksheet:			
7				The control of the co			
8.		-		Total % Cover of: Multiply by:			
		= Total Co	ver	OBL species x 1 =			
50% of total cover:	20% of	total cover	ť	FACW species x 2 =			
Sapling/Shrub Stratum (Plot size:)				FAC species x 3 =			
1.				FACU species x 4 =			
2.				UPL species x 5 =			
3.				Column Totals: (A) (B)			
				- 1980 / 1980 - 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 / 1980 /			
4				Prevalence Index = B/A =			
5				Hydrophytic Vegetation Indicators:			
6				1 - Rapid Test for Hydrophytic Vegetation			
7				2 - Dominance Test is >50%			
8				3 - Prevalence Index is ≤3.01			
		= Total Co		Problematic Hydrophytic Vegetation ¹ (Explain)			
50% of total cover:	20% of	total cover	·				
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must			
yellow partridge pea (Chamaecrista fasciculata)	10		FACU	be present, unless disturbed or problematic.			
2. sticky-willy (Gallum aparine)	35		FACU	Definitions of Four Vegetation Strata:			
 sunflower (Helianthus strumosus) 	3		UPL	The Manch plants and discuss 2 is 17.0 and a			
4. snakeroot (Ageratina altissima)	15		FACU	 Tree – Woody plants, excluding vines, 3 in. (7.6 cm) o more in diameter at breast height (DBH), regardless of height. 			
5. globe flatsedge (Cypercus echinatus)	3		FAC				
6,			-	Sapling/Shrub - Woody plants, excluding vines, less			
7				than 3 in. DBH and greater than 3.28 ft (1 m) tall.			
				24VA = 42VA XVI			
8				Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.			
9				or size, and woody plants less than 5.20 it tall.			
10				Woody vine - All woody vines greater than 3.28 ft in			
11			_	height.			
12		-					
	66	= Total Co	ver				
50% of total cover: 33	20% of	total cover	13.2				
50% of total cover: 33 Woody Vine Stratum (Plot size:)	20% of	total cover	13.2				
	- 18 (1922) (F2) 61						
Woody Vine Stratum (Plot size:) 1							
Woody Vine Stratum (Plot size:) 1	_						
Woody Vine Stratum (Plot size:) 1	=						
Woody Vine Stratum (Plot size:) 1 2 3 4							
Woody Vine Stratum (Plot size:) 1				Hydrophytic Vegetation			
Woody Vine Stratum (Plot size:) 1 2 3 4		Total Co	ver	Hydrophytic Vegetation Present? Yes No X			

		2
Sampling	Point:	~

SOIL

Profile Desc	ription: (Describe	to the de	oth needed to d	locument the	indicator o	or confirm	the absence of ir	dicators.)	,,,,
Depth	Matrix			Redox Featur					E
(inches) 0-3	Color (moist) 10YR 6/4	%	Color (mois	t) %	Type¹	Loc ²	Silty Sand	Remark	5
	10YR 6/6	80	10YR 6/3	5			Silty Sand		
~ 			10YR 7/1	15			Silty Sand		-
		-							
		99		3,55			· · · · · · · · · · · · · · · · · · ·		- 1
s 									
					<u> </u>				
¹Type: C=C	oncentration, D=De	pletion, RN	I=Reduced Matr	ix, MS=Maske	ed Sand Gra	ins.	² Location: PL=	Pore Lining, M=Ma	atrix.
	Indicators: (Applic							Problematic Hydr	
☐ Histosol	(A1)		☐ Polyvalu	ue Below Surf	face (S8) (LI	RR S, T, L	J) 🔲 1 cm Muck	(A9) (LRR O)	
	oipedon (A2)			rk Surface (S		100000011	G-1 C-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G	(A10) (LRR S)	
	stic (A3)			Mucky Minera		0)		ertic (F18) (outsid	
0.000	en Sulfide (A4) d Layers (A5)			Gleyed Matrix d Matrix (F3)	10 A (10 a) (10 a)			loodplain Soils (F1 Bright Loamy Soil	
	Bodies (A6) (LRR F	P. T. U)		Dark Surface			(MLRA 1		3 (1 20)
	icky Mineral (A7) (L			d Dark Surfac	M. 1000000000000000000000000000000000000			Material (TF2)	
Muck Pr	esence (A8) (LRR I	J)		Depressions (700000		☐ Very Shallo	w Dark Surface (T	F12)
prompt Control of the	ick (A9) (LRR P, T)			10) (LRR U)			Uther (Expl	ain in Remarks)	
	d Below Dark Surfac	e (A11)		d Ochric (F11		33.5	_ 3		100-40 Japon 00 0100-64
The state of the s	ark Surface (A12) rairie Redox (A16) (MI DA 150		nganese Mas Surface (F13)				s of hydrophytic ve hydrology must be	
The same of the sa	fucky Mineral (S1) (chric (F17) (N		u)		listurbed or probler	
	Bleyed Matrix (S4)	2,111, 0, 0,		d Vertic (F18)	The state of the s	A, 150B)		indicated or problem	113433
	Redox (S5)			nt Floodplain					
The second secon	Matrix (S6)		☐ Anomal	ous Bright Loa	amy Solls (F	20) (MLR	A 149A, 153C, 153	ID)	
The second secon	rface (S7) (LRR P,								
	Layer (if observed)								
Type:	8 E						90 0002.02	122 122	x
	ches):						Hydric Soil Pres	sent? Yes	No_X
Remarks:									

Project/Site: 55-Acre / EH157076		City/County: Sh	reveport / Ca	ddo Parish	Sampling Date: 7/20/15
Applicant/Owner: Shreveport Airpo					Sampling Point: S-3
Investigator(s): Jessica Keasler &		Section, Townsh			1
Landform (hillslope, terrace, etc.): adja	cent to stream bed	Local relief (cond	cave, convex, non	e): None	Slope (%): <1
Subregion (LRR or MLRA): LRRP 13	3B _{Lat:} 32	2.44688	Long: -93.		Datum: 84
Soil Map Unit Name: Metcalf-timpso					_{ation:} none
Are climatic / hydrologic conditions on the		of year? Yes X	No (If n		
Are Vegetation, Soil, or F	And the state of t	A THE VIDEOUS CONTRACTOR			resent? Yes X No
Are Vegetation, Soil, or F	iydrology naturall	y problematic?	(If needed, expla	ain any answe	rs in Remarks.)
SUMMARY OF FINDINGS - At	tach site map show	ing sampling po	oint locations	, transects	, important features, etc
	V X 11-				
Hydrophytic Vegetation Present? Hydric Soil Present?	Yes X No X	Is the Sa	mpled Area		V
Wetland Hydrology Present?	Yes No X Yes No X	within a	Wetland?	Yes	No_X
Remarks:	100	_			
HYDROLOGY Wetland Hydrology Indicators:			Sec	condary Indica	tors (minimum of two required)
Wetland Hydrology Indicators:			Sec	condary Indica	tors (minimum of two required)
Primary Indicators (minimum of one is r	equired; check all that ap-	ply)		Surface Soil	Cracks (B6)
Surface Water (A1)	Aquatic Fauna	(B13)		Sparsely Veg	etated Concave Surface (B8)
High Water Table (A2)	Marl Deposits	(B15) (LRR U)		Drainage Pat	terns (B10)
Saturation (A3)	Hydrogen Sulfi			Moss Trim Li	
Water Marks (B1)		spheres along Living			Water Table (C2)
Sediment Deposits (B2)		educed Iron (C4)		Crayfish Burr	20 - 10 10 10 10 10 10 10 10 10 10 10 10 10
Drift Deposits (B3)		eduction in Tilled Soils	s (C6)	[1] [2] 교육 [2] 이번에 함께 [2] 이번	sible on Aerial Imagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)	Thin Muck Sur	MARKAN	H	Geomorphic Shallow Aqui	N. 100 J.
Inundation Visible on Aerial Image		in Remarks)	H	FAC-Neutral	
Water-Stained Leaves (B9)	<i>y</i> (67)		Ħ		oss (D8) (LRR T, U)
Field Observations:			1		TELEVISION IN TA
Surface Water Present? Yes	No_X Depth (inc	hes):			
Water Table Present? Yes	No X Depth (inc	:hes):			
	No X Depth (inc			ology Presen	t? Yes No X
(includes capillary fringe)	PENNABELS — ETHORAGY LABOUR	OCCUPATION OF THE PROPERTY OF	tr Contraction Account		120 147000 1451512.57
Describe Recorded Data (stream gauge	, monitoring well, aerial p	notos, previous inspe	ections), it availab	ie.	
Describer					
Remarks:					

VEGETATION (Four Strata) – Use scientific names of plants. Absolute Dominant Indicator | Dominance Test worksheet:

Tree Stratum (Plot size:)	Absolute		Indicator	Dominance Test worksheet:	
winged elm (Ulmus alata)	% Cover 15	Species? Y	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: 3	(A)
oak (Quercus nigra)	10	Υ	FAC	Total Number of Dominant	
				Species Across All Strata: 4	(B)
				Percent of Dominant Species	
				That Are OBL, FACW, or FAC: 75	(A/B
				Prevalence Index worksheet:	
				Total % Cover of: Multiply by:	
				OBL species x1 =	
12.2		= Total Cov		FACW species x 2 =	
50% of total cover: _12.5	20% of	total cover		FAC species x3 =	
apling/Shrub Stratum (Plot size:)	.00	v	E4.0	FACU species x 4 =	
privet (Ligustrum sinense)	20	<u>Y</u>	FAC	UPL species x 5 =	
\$4				Column Totals: (A)	
				Coldina Fotals(A)	_ 10,
				Prevalence Index = B/A = 3.5	-
 				Hydrophytic Vegetation Indicators:	
				1 - Rapid Test for Hydrophytic Vegetation	
=				2 - Dominance Test is >50%	
				3 - Prevalence Index is ≤3.01	
		= Total Cov		Problematic Hydrophytic Vegetation ¹ (Expla	ain)
50% of total cover:	20% of	total cover			
erb Stratum (Plot size:) saw greenbrier (Smilax bona-nox)	15	Y	FAC	¹ Indicators of hydric soil and wetland hydrology be present, unless disturbed or problematic.	must
beauty berry (Callicarpa americana)	5	N	FACU	Definitions of Four Vegetation Strata:	
wood oats (chasmanthium sessiliflorum)	5	N	FAC	Torre Mando plants and disputing 2 is 17.0	r anna Arra
poison ivy (Toxicodendron radicans)	5	N	FAC	Tree – Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard	
-				height.	
				Sapling/Shrub - Woody plants, excluding vines	s. less
				than 3 in. DBH and greater than 3.28 ft (1 m) tal	
				Herb - All herbaceous (non-woody) plants, rega	ardless
				of size, and woody plants less than 3.28 ft tall.	
				or olze, and woody plants loss than o.ze it tall.	
			=		8 ft in
0		\equiv	=	Woody vine – All woody vines greater than 3.2 height.	8 ft in
	<u> </u>	<u> </u>		Woody vine - All woody vines greater than 3.2	8 ft in
		= Total Cov		Woody vine - All woody vines greater than 3.2	8 ft in
0 1	30	_	 er	Woody vine - All woody vines greater than 3.2	8 ft in
	30	Total Cov	 er	Woody vine - All woody vines greater than 3.2	8 ft in
0	30 20% of	= Total Cov	er 6	Woody vine - All woody vines greater than 3.2	8 ft in
	30 20% of	= Total Cov total cover	er 6	Woody vine - All woody vines greater than 3.2	8 ft in
50% of total cover: 15	30 20% of	= Total Cov total cover	er 6	Woody vine - All woody vines greater than 3.2	8 ft in
	30 20% of	= Total Cov total cover	6	Woody vine - All woody vines greater than 3.2	8 ft in
	30 20% of	= Total Cover	er 6	Woody vine - All woody vines greater than 3.2	8 ft in
	30 20% of	= Total Cov total cover	er 6	Woody vine – All woody vines greater than 3.2 height.	8 ft in

Depth	Matrix	- 33		dox Featu	es				16 souranceaux
inches))-4	Color (moist) 10YR 6/3	100	Color (moist)	%_	Type ¹	_Loc2	Texture Silty Sand		Remarks
-18	10YR 5/4	92	5YR 4/6	8			Silty Sand		
ype: C=C ydric Soil Histosoi Histic E Black H Hydroge Stratifie Organic 5 cm Mi Muck Pi 1 cm Mi Deplete Thick D	concentration, D=Deplications: (Applications: (Applications)	pletion, RM= cable to all P, T, U) RR P, T, U) U)	Reduced Matrix, N LRRs, unless oth Polyvalue 8 Thin Dark 8 Loamy Muc Loamy Gle Depleted M Redox Dari Depleted D Redox Dep Marl (F10) Depleted C	MS=Mask erwise ne Below Surface (S cky Minera yed Matrix fatrix (F3) k Surface eark Surface foressions (LRR U) chric (F1:	oted.) face (S8) (L 9) (LRR S, al (F1) (LRR (F2) (F6) be (F7)	RR S, T, I T, U) (O) 51) LRR O, P,	ZLocation: Indicators U) 1 cm l 2 cm l Reduct Anom (ML Red P Very S Other	for Problemark (A9) Muck (A10) Muck (A10) Ded Vertic (Dent Floodpalous Bright RA 153B) Farent Mate Shallow Da (Explain in	(LRR S) F18) (outside MLRA 150A, plain Soils (F19) (LRR P, S, tt Loamy Soils (F20)
Sandy (Mucky Mineral (S1) (Gleyed Matrix (S4) Redox (S5)			ertic (F18) (MLRA 15 Solls (F19))		ed or problematic.
Stripped Dark Suestrictive Type:	d Matrix (S6) urface (S7) (LRR P, 1 Layer (if observed)):		Bright Lo	amy Solls (F20) (MLF	RA 149A, 1530		Yes No _X
Stripped Dark Suestrictive Type:	urface (S7) (LRR P, : Layer (if observed)):		Bright Lo	amy Solls (F20) (MLF			Yes No _X
Stripped Dark Suestrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)):		Bright Lo	amy Solls (F20) (MLF			Yes No_X
Stripped Dark Suestrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)):		Bright Lo	amy Solls (F20) (MLF			Yes No _X
Stripped Dark Surstrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)			Bright Lo	amy Solls (F20) (MLF			
Stripped Dark Sustrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)						Hydric Soil	Present?	
Stripped Dark Sustrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)							Present?	
Stripped Dark Surstrictive Type: Depth (in	urface (S7) (LRR P, : Layer (if observed)						Hydric Soil	Present?	

Project/Site: 55-Acre / EH157	7076	City/C	county: Shreveport /	Caddo Parish	Sampling Date: 7/20/15
Applicant/Owner: Shreveport A				State: LA	Sampling Point: S-4
Investigator(s): Jessica Keasl		Section	on, Township, Range:		/
Landform (hillslope, terrace, etc.): _			relief (concave, convex		Slope (%): non
Subregion (LRR or MLRA): LRR	2 133B	Lat: 32.44943		-93.8412	Datum: 84
Soil Map Unit Name: Keithville	verv fine	Lat.	Long.		ation: none
Are climatic / hydrologic conditions		e this time of uses N	/os X No		
Are Vegetation, Soil	9	- 3376/			oresent? Yes X No
Are Vegetation, Soil	_, or Hydrology	naturally problem	atic? (If needed,	explain any answe	rs in Remarks.)
SUMMARY OF FINDINGS -	 Attach site m 	ap showing san	npling point locati	ons, transects	, important features, e
Hydrophytic Vegetation Present?	Yes X	No			
Hydric Soil Present?			Is the Sampled Area	4.876.0	V
Wetland Hydrology Present?	Yes	No X No X	within a Wetland?	Yes	No_X
HYDROLOGY					
Wetland Hydrology Indicators:	3			Secondary Indica	tors (minimum of two required
Primary Indicators (minimum of or	ne is required; check	all that annly\		Surface Soil	E WEEK
Surface Water (A1)		iatic Fauna (B13)			getated Concave Surface (B8)
High Water Table (A2)	0 - 02307	d Deposits (B15) (LR)	R UI)	Drainage Pa	
Saturation (A3)	E - CANCO	frogen Sulfide Odor (The state of the s	Moss Trim L	
Water Marks (B1)	13 - 10.450		long Living Roots (C3)		Water Table (C2)
Sediment Deposits (B2)	Pre:	sence of Reduced Iro	n (C4)	Crayfish Bur	rows (C8)
Drift Deposits (B3)	☐ Rec	ent Iron Reduction in	Tilled Soils (C6)	Saturation V	isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)		n Muck Surface (C7)			Position (D2)
Iron Deposits (B5)	ACTOR CONTRACTOR STATE OF THE S	er (Explain in Remar	(5)	Shallow Aqu	10.0001291.001030404
Inundation Visible on Aerial I	nagery (B/)			FAC-Neutral	CASSINITE CONTRACTOR
Water-Stained Leaves (B9) Field Observations:			T	☐ Spnagnum n	noss (D8) (LRR T, U)
	es No X	Depth (inches):			
		Depth (inches):			
	es No X	Depth (inches):		Hydrology Preser	nt? YesNo_X
(includes capillary fringe)	31145 FRANKS 4	SEMBARA CARROLANA	ACT (COMPANIES)		AND 168600
Describe Recorded Data (stream	gauge, monitoring w	veii, aeriai priotos, pre	vious inspections), if av	allable:	
Remarks:					

Sampling Point: S-4

		Indicator	Dominance Test worksheet:		
	Species?	PG 185	Number of Dominant Species That Are OBL, FACW, or FAC:	2	(A)
			+300 MODE 2017 HONDOWN		- (15535)
			Species Across All Strata:	3	(B)
			Percent of Dominant Species		
			That Are OBL, FACW, or FAC:	66	(A/B
			Prevalence Index worksheet		
				Multiply by:	
	= Total Cov	er	ACC CONTRACTOR CONTRAC		
20% of	total cover				
			333333		
			Column Totals: (A	.)	_ (B)
			Prevalence Index = B/A =		
				V	
				(A) (E) (A)	
				H Haran arang kanang	les A
20% of	total cover		E Problematic Hydrophytic ve	deranou (cxbra	1117
					nust
-		N. S.		The property of the second	
2000		The second second	Definitions of Four Vegetation	Strata:	
			Tree - Woody plants, excluding	vines, 3 in. (7.6	cm) o
				t (DBH), regard	ess of
			neight.		
			Sapling/Shrub - Woody plants,	excluding vines	, less
			than 3 in, DBH and greater than	3.28 ft (1 m) tall	•
					rdless
			of size, and woody plants less th	an 3.28 ft tall.	
-			Woody vine - All woody vines of	reater than 3.28	ft in
			height.		
			1-3		
95	= Total Cov	er			
	1,0000000000000000000000000000000000000	700			
	total cover				
20% of	total cover	19			
20% of	total cover	19			
20% of	total cover	<u>19</u>			
20% of	total cover	<u>19</u>			
20% of	total cover	19	Hydrophytic		
20% of	total cover	<u>19</u>	Hydrophytic Vegetation Present? Yes X	No	
	20% of 20 50 5 20	= Total Covers =	50 Y FAC 5 N UPL 20 Y FACU	That Are OBL, FACW, or FAC: Total Number of Dominant Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: Prevalence Index worksheet: Total % Cover of: OBL species x FACW species x FACW species x YEAC species x YEAC species x YEAC species x YEAC species x YEACW speci	That Are OBL, FACW, or FAC: 2 Total Number of Dominant Species Across All Strata: 3 Percent of Dominant Species That Are OBL, FACW, or FAC: 66 Prevalence Index worksheet: Total % Cover of: Multiply by: OBL species x 1 = FACW species x 2 = FACW species x 3 = FACU species x 4 = UPL species x 5 = Column Totals: (A) Prevalence Index = B/A = Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ Problematic Hydrophytic Vegetation¹ (Expla obligation) 1 - Rapid Test for Hydrophytic Vegetation obligation indicators: 1 - Rapid Test for Hydrophytic Vegetation obligation indicators: 1 - Rapid Test for Hydrophytic Vegetation obligation indicators: 1 - Rapid Test for Hydrophytic Vegetation indicators: 1 - Rapid Test for Hydrophytic Vegetation indicators: 2 - Definitions of Four Vegetation Strata: Tree - Woody plants, excluding vines, 3 in. (7.6 more in diameter at breast height (DBH), regard height. Sapling/Shrub - Woody plants, excluding vines than 3 in. DBH and greater than 3.28 ft (1 m) tall herb - All herbaceous (non-woody) plants, regard size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3.28 ft tall.

	cription: (Describe	to the depth	needed to docu	iment the	indicator	or confirm	n the absence o	of indicato	rs.)	- 1
Depth	Matrix	n/ -		lox Feature		1 2	T		D.	
(inches) 0-6	Color (moist) 10YR 5/4	100	Color (moist)	%	Type'	_Loc2	Sandy loam		Remarks	-
J. (200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 200 - 20	120011212000000000000000000000000000000	100000								-
6-19	10YR 6/6	100					Sandy loam			2
										→ ?:
										37
										-
Type: C=C	oncentration, D=De	nietion PM-P	aduoad Matrix A	Maeka	d Sand Gr	raine	2 ocation:	DI =Dore I i	ning, M=Matrix.	-:
	Indicators: (Applie					dilla.			natic Hydric Soils ³ :	-
☐ Histosol	[[전기 [[[[[[[[[[[[[[[[[[Polyvalue E		H1037	.RR S, T, L	Property Control of the Control of t	uck (A9) (L		
Histic E	pipedon (A2)		Thin Dark S					uck (A10) (3650 Ph (1975) 1570 C. C.	
The second of the second of the second	istic (A3)		Loamy Muc			R O)	1 E 1 E 1 E 1 E 1 E 1 E 1 E 1 E 1 E 1 E		18) (outside MLRA 150A,	1000
	en Sulfide (A4)		Loamy Gley		(F2)		- CO. C.		in Soils (F19) (LRR P, S,	T)
	d Layers (A5) Bodies (A6) (LRR F	2 T III	Depleted M Redox Dark	Charles of the Control of the Contro	ER)			ous Bright A 153B)	Loamy Soils (F20)	
	ucky Mineral (A7) (L		Depleted D		2000			rent Materia	al (TF2)	
	resence (A8) (LRR I		Redox Dep				1.0000000000000000000000000000000000000		Surface (TF12)	
-	ick (A9) (LRR P, T)		Marl (F10)				Other (I	Explain in R	temarks)	
	d Below Dark Surfac	ce (A11)	Depleted O			5/5.5(5)	- 3		NAME OF THE PARTY	
The second secon	ark Surface (A12) rairie Redox (A16) (MI DA 150A)	☐ Iron-Manga ☐ Umbric Sur						rophytic vegetation and gy must be present,	
The same of the sa	Mucky Mineral (S1) (Delta Ochri					10.7	d or problematic.	
	Gleyed Matrix (S4)	(8.3)	Reduced V						A.	
Sandy F	Redox (S5)		Piedmont F							
The second secon	I Matrix (S6)	···	Anomalous	Bright Loa	my Solls (F20) (MLR	RA 149A, 153C,	153D)		
The second of th	rface (S7) (LRR P, Layer (if observed)						3			- 5
Type:		W.;								
	8		_				COST AMERICAN DAYS			
	ches):		_				Hydric Soil I	Present?	Yes No X	
Remarks:	ches):		_				Hydric Soil I	Present?	Yes No_X	-
Remarks:	ches):		. :				Hydric Soil I	Present?	Yes No X	-
Remarks:	ches):						Hydric Soil I	Present?	Yes No _X	
Remarks:	ches):		_				Hydric Soil I	Present?	Yes No_X	
Remarks:	ches):						Hydric Soil I	Present?	Yes No _X	-
Remarks:	ches):						Hydric Soil I	Present?	Yes No _X	-
Remarks:	ches):		.				Hydric Soil I	Present?	Yes No _X	_
Remarks:	ches):						Hydric Soil I	Present?	Yes No _X	
Remarks:	ches):						Hydric Soil I	Present?	Yes No _X	
Remarks:	ches):		.				Hydric Soil I	Present?	Yes No _X	_
Remarks:	ches):						Hydric Soil I		Yes No _X	_
Remarks:	ches):								Yes No X	
Remarks:	ches):								Yes No _X	
Remarks:	ches):									_
Remarks:	ches):								Yes No _X	_
Remarks:	ches):									
Remarks:	ches):									
Remarks:	ches):									
Remarks:	ches):									_
Remarks:	ches):									-
Remarks:	ches):									
Remarks:	ches):									_

Project/Site: 93-Acre / EH157076	City/	County: Shreveport / C	addo Parish	Sampling Date: 7/20/15
Applicant/Owner: Shreveport Airport			tate: LA	Sampling Point: S-5
Investigator(s): Jessica Keasler & Lem	Dial Sect	ion, Township, Range: 21	T17N R14	W
Landform (hillslope, terrace, etc.): Flat	Loca	I relief (concave, convex, n	one): None	Slope (%): None
Subregion (LRR or MLRA): LRRP 133B		Long:9		Datum: 84
Soil Map Unit Name: Metcalf-timpson co		Long.		ication: none
4 = = = = = = = = = = = = = = = = = = =		X N		
Are climatic / hydrologic conditions on the site ty Are Vegetation, Soil, or Hydrolo				present? Yes X No
Are Vegetation, Soil, or Hydrolo	gy naturally problem	natic? (If needed, ex	cplain any answ	ers in Remarks.)
SUMMARY OF FINDINGS - Attach	site map showing sar	mpling point location	ns, transect	s, important features, etc
III.da Lata Vandalla Barra 22	N- X			•
	No_X	Is the Sampled Area		V
Wetland Hydrology Present? Yes	No X	within a Wetland?	Yes	No_X
Remarks:				
HYDROLOGY Wetland Hydrology Indicators:			Secondory India	palore (minimum of hus required)
Wetland Hydrology Indicators:			Secondary Indic	cators (minimum of two required)
Primary Indicators (minimum of one is required	d; check all that apply)		Surface So	il Cracks (B6)
Surface Water (A1)	Aquatic Fauna (B13)		Sparsely Ve	egetated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LR	R U)	Drainage P	atterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor ((C1)	Moss Trim	Lines (B16)
Water Marks (B1)	Oxidized Rhizospheres		Dry-Seasor	Water Table (C2)
Sediment Deposits (B2)	Presence of Reduced In		Crayfish Bu	
☐ Drift Deposits (B3)	Recent Iron Reduction in			Visible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	No. 100		c Position (D2)
☐ Iron Deposits (B5)	Other (Explain in Remar	K5)	Shallow Aq	
Inundation Visible on Aerial Imagery (B7) Water-Stained Leaves (B9)			FAC-Neutra	moss (D8) (LRR T, U)
Field Observations:			opnagnum	moss (DO) (EKK 1, O)
	X Depth (inches):			
Water Table Present? Yes No	X Depth (inches):	======		
	X Depth (inches):		drology Prese	ent? Yes No X
(includes capillary fringe)	es estimated establishmen	And Control of the Co		2018
Describe Recorded Data (stream gauge, moni	toring well, aerial photos, pro	evious inspections), if avail	able:	
Remarks:				

		1000	
Sampling	Doint	S-5	
samonno	POINT		

	Dominant		Dominance Test worksheet:
	Species?	90 10	Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)
			Total Number of Dominant Species Across All Strata: 4 (B)
			Descript of Description of Country
			Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)
			- 0.71-454764024515145-014-4427510-21-5430-35-1
			Prevalence Index worksheet:
			Total % Cover of:Multiply by:
			OBL species 0 x 1 = 0
-			FACW species 20 x 2 = 40
20 % 01	total cover	-	FAC species 27 x 3 = 81
			FACU species 35 x 4 = 140
			UPL species 0 x 5 = 0
			Column Totals: 82 (A) 261 (B)
			Prevalence Index = B/A = 3.18
			Hydrophytic Vegetation Indicators:
			1 - Rapid Test for Hydrophytic Vegetation
			2 - Dominance Test is >50%
			3 - Prevalence Index is ≤3.01
	= Total Cov	er	Problematic Hydrophytic Vegetation ¹ (Explain)
20% of	total cover		
			Indicators of hydric soil and wetland hydrology must
20	Υ	FACW	be present, unless disturbed or problematic.
15	Υ	FAC	Definitions of Four Vegetation Strata:
15	Y	FACU	-
20	Y	FACU	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
10	N	FAC	height.
2	N	FAC	Sapling/Shrub - Woody plants, excluding vines, less
			than 3 in. DBH and greater than 3.28 ft (1 m) tall.
			2012 201 1
			Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
			Woody vine – All woody vines greater than 3.28 ft in height.
			neight
82	- Total Car		
20 % 01	total cover		
			Hydrophytic
	= Total Cov	er	Hydrophytic Vegetation Present? Yes No _X
	20% of 20% of 15 15 20 10 2	= Total Cov 20% of total covers = Total Cov 20% of total covers 20	= Total Cover 20% of total cover: = Total Cover 20% of total cover: 20

Profile Desc	cription: (Describe	to the dep	th needed to docu	ment the	ndicator	or confirm	the absence of	indicators.)
Depth (inches) 0-4	Matrix Color (moist) 10YR 6/3	100	Color (moist)	ox Feature %	s Type ¹	_Loc²	Texture	Remarks
4-12	10YR 6/3	93	10YR 3/6	7	*	_	Sand	-
-		-	And the second second					•
Hydric Soil Histosol Histic Ep Black Hi Hydroge Stratified Organic 5 cm Mu Muck Pr 1 cm Mu Depleted Thick Da Coast P Sandy M Sandy R Sandy R	pipedon (A2) pistic (A3) en Sulfide (A4) d Layers (A5) Bodies (A6) (LRR Fucky Mineral (A7) (LI resence (A8) (LRR Unick (A9) (LRR P, T) d Below Dark Surface ark Surface (A12) rairie Redox (A16) (Mucky Mineral (S1) (Gleyed Matrix (S4)	cable to all P, T, U) RR P, T, U) Ce (A11) MLRA 150	Polyvalue B Thin Dark S Loamy Muc Loamy Gley Depleted M Redox Dark Depleted Do Redox Depl Marl (F10) (Depleted O Iron-Manga Umbric Surf Delta Ochric Reduced Va	erwise not delow Surfa durface (S9 ky Mineral ved Matrix (atrix (F3) discrete (F3) dark Surface ressions (F LLRR U) chric (F11) nese Mass face (F13) discrete (F18) disordifiant Si	ed.) ce (S8) (L) (LRR S, (F1) (LRR F2) 6) (F7) 8) (MLRA 1: es (F12) ((LRR P, T .RA 151) (MLRA 15 olls (F19)	RR S, T, L T, U) (O) (S1) LRR O, P, U) (MLRA 14	Indicators for I) 1 cm Muc 2 cm Muc Reduced Piedmont Anomalou (MLRA Red Pare Very Shal Other (Ex T) 3Indicato wetlan- unless	nt Material (TF2) llow Dark Surface (TF12) plain in Remarks) ors of hydrophytic vegetation and d hydrology must be present, disturbed or problematic.
The second secon	l Matrix (S6) rface (S7) (LRR P, :	S T U)		Bright Loa	my Solls (F20) (MLR	A 149A, 153C, 15	53D)
	Layer (if observed)	233						
Type:	20 ES						OR ANDRES WAS	v
	ches):		_				Hydric Soil Pro	esent? Yes No X
Remarks:								

Project/Site: 93-Acre / EH157076	City/C	county: Shreveport / C	addo Parish	Sampling Date: 7/20/15
Applicant/Owner: Shreveport Airport			tate: LA	Sampling Point: S-6
Investigator(s): Jessica Keasler & Lem Di	al Section	on, Township, Range: 21	T17N R14V	ν
Landform (hillslope, terrace, etc.): adjacent to	stream bed Local	relief (concave, convex, n	one): None	Slope (%): None
Subregion (LRR or MLRA): LRRP 133B	Lat: 32.4478	Long: -9		Datum: 84
Soil Map Unit Name: Keithville				cation: none
Are climatic / hydrologic conditions on the site typic	al for this time of year? Y	es X No (II		
Are Vegetation, Soil, or Hydrology		A 104 104 104 104 104 104 104 104 104 104		present? Yes X No
Are Vegetation, Soil, or Hydrology	naturally problema	atic? (If needed, ex	plain any answe	ers in Remarks.)
SUMMARY OF FINDINGS - Attach site	e map showing san	pling point location	ns, transects	s, important features, etc
	Y			
	No X No X	Is the Sampled Area		V
Wetland Hydrology Present? Yes	No X	within a Wetland?	Yes	No_X
Remarks:				
HYDROLOGY Wetland Hydrology Indicators:		ě	Secondary India	place (minimum of him enough at
Wetland Hydrology Indicators:	100 ASSESSED CAMI	\$	Secondary Indic	ators (minimum of two required)
Primary Indicators (minimum of one is required; of	heck all that apply)		Surface Soil	Cracks (B6)
☐ Surface Water (A1)	Aquatic Fauna (B13)	ļ		getated Concave Surface (B8)
High Water Table (A2)	Marl Deposits (B15) (LRI	The state of the s		atterns (B10)
Saturation (A3)	Hydrogen Sulfide Odor (0	N N N N	Moss Trim L	51.75 C C C C C C C C C C C C C C C C C C C
Water Marks (B1) Sediment Deposits (B2)	Oxidized Rhizospheres a Presence of Reduced Iro		Crayfish Bu	Water Table (C2)
Drift Deposits (B3)	Recent Iron Reduction in			isible on Aerial Imagery (C9)
Algal Mat or Crust (B4)	Thin Muck Surface (C7)	1		: Position (D2)
☐ Iron Deposits (B5)	Other (Explain in Remark	(5)	Shallow Aqu	NAT 100 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0
Inundation Visible on Aerial Imagery (B7)		1	☐ FAC-Neutra	l Test (D5)
Water-Stained Leaves (B9)			Sphagnum i	moss (D8) (LRR T, U)
Field Observations:				
Surface Water Present? Yes No^	X Depth (inches):			
	X Depth (inches):			nt? YesNo_X
Saturation Present? Yes No _2 (includes capillary fringe)	X Depth (inches):	Wetland Hy	drology Prese	nt? Yes No ^
Describe Recorded Data (stream gauge, monitori	ng well, aerial photos, pre	vious inspections), if avail-	able:	
Remarks:				

	Absolute	Dominant	Indicator	Dominance Test worksheet:	
<u>Tree Stratum</u> (Plot size:) 1)		Species?	190	Number of Dominant Species That Are OBL, FACW, or FAC: 0	(A)
2	-			Total Number of Dominant Species Across All Strata: 2	(B)
4 5				Percent of Dominant Species That Are ORL FACW or FAC: 0	= 25,000 M
6				That Are OBL, FACW, or FAC:	(A/B)
				Prevalence Index worksheet:	
7 8				Total % Cover of: Multiply b	y:
9.		= Total Co		OBL species x 1 =	
50% of total cover:				FACW species x 2 =	
	20 % 01	total cover	-	FAC species x 3 =	
Sapling/Shrub Stratum (Plot size:)				FACU species x 4 =	
				UPL species x 5 =	
				Column Totals: (A)	
3				= 5,005	
Ŀ				Prevalence Index = B/A =	
5				Hydrophytic Vegetation Indicators:	
3.				1 - Rapid Test for Hydrophytic Vegetation	on
Y				2 - Dominance Test is >50%	
3				3 - Prevalence Index is ≤3.01	
		= Total Co		Problematic Hydrophytic Vegetation ¹ (E	xplain)
50% of total cover:	20% of	total cover	:		
Herb Stratum (Plot size:) 1. goose grass (Eleusine indica)	10	N	FACU	¹ Indicators of hydric soil and wetland hydrole be present, unless disturbed or problematic.	
2. little barley (Hordeum pusillum)	20	Υ	FACU	Definitions of Four Vegetation Strata:	
3, yarrow (Achillea millefolium)	8	N	FACU	Tree - Woody plants, excluding vines, 3 in.	/7.6 cm) o
4. gama grass (Tripsacum dactyloides)	5	N	FAC	more in diameter at breast height (DBH), re	
horseweed (Erigeron canadensis)	15	Υ	FACU	height.	*
3				Sapling/Shrub - Woody plants, excluding v	vines, less
1				than 3 in. DBH and greater than 3.28 ft (1 m	
3				Herb - All herbaceous (non-woody) plants,	regardless
3,				of size, and woody plants less than 3.28 ft to	
10					0.00.0
11.				Woody vine – All woody vines greater than height.	3.28 It in
12.					
	58	= Total Co	/er		
50% of total cover: 29		total cover			
Woody Vine Stratum (Plot size:)					
2.			_		
3.					
		TWO INCOMES TO THE		Hydrophytic Vegetation	
5		= Total Cor			
		= Total Cov		Present? Yes No X	_

Profile Desc	cription: (Describ	e to the dep	th needed to do	ocument th	ne indicato	r or confirm	n the absence	of indicators.)		175
Depth	Matrix			edox Feati			# <u>11</u> 20000000	102	20120000	
(inches)	Color (moist)	75	Color (moist)		Type	Loc ²	Texture	R	emarks	
e :-	5YR 4/6	_ 75	7.5YR 5/1	25	-5.25		clay			
							-			-
9 								-		
				-25-	- 22	236	-			
¹Type: C=C	oncentration, D=De	epletion, RM=	Reduced Matrix	. MS=Masi	ked Sand (Grains.	² Location:	PL=Pore Lining	. M=Matrix.	
	Indicators: (Appl								Hydric Soils ³ :	
☐ Histosol	(A1)		☐ Polyvalu	e Below Su	rface (S8)	(LRR S, T,	U) 1 cm M	luck (A9) (LRR (D)	
Histic E	pipedon (A2)		10 TO	k Surface (C. C	luck (A10) (LRR	1071	
Black H	istic (A3)		Loamy N	lucky Mine	ral (F1) (LF	RR O)			outside MLRA 1	
The second secon	en Sulfide (A4)			leyed Matr					oils (F19) (LRR F	P, S, T)
	d Layers (A5)			Matrix (F3				lous Bright Loar	ny Soils (F20)	
	Bodies (A6) (LRR			ark Surface				(A 153B)	227	
	ucky Mineral (A7) (Dark Surfa	112.00			rent Material (T hallow Dark Surl		
The second secon	resence (A8) (LRR uck (A9) (LRR P, T			epressions (LRR U)	0.00			nallow Dark Sun Explain in Rema		
	d Below Dark Surfa			Ochric (F1		151)	U Other (Expedit it ivelie	iikaj	
	ark Surface (A12)	222 8 27 74				(LRR O, P	T) ³ Indic	ators of hydroph	ytic vegetation a	nd
-	rairie Redox (A16)	(MLRA 150A		urface (F1					nust be present,	25.55
Sandy N	Mucky Mineral (S1)	(LRR O, S)	Delta Oc	hric (F17) (MLRA 151)	unle	ess disturbed or	problematic.	
	Bleyed Matrix (S4)					150A, 150B				
	Redox (S5)					9) (MLRA 14		Managara (
The second secon	Matrix (S6)	···	Anomalo	us Bright L	oamy Solls	(F20) (MLF	RA 149A, 153C,	153D)		
The second of th	rface (S7) (LRR P. Layer (if observed	A COLUMN TO A COLU					29			
	Layer (II observed	η.								
Type:	38							n 10 1/	s No_	x
	ches):						Hydric Soil	Present? Yes	5 NO_	
Remarks:										

Project/Site: 93-Acre / EH157076		City/C	ounty: Shrevep	ort / Cad	ldo Parish	Sampling Date:	7/20/15
Applicant/Owner: Shreveport Airpor	t		Windles	State		Sampling Point:	
Investigator(s): Jessica Keasler & I		Section	on, Township, Ran			1	
Landform (hillslope, terrace, etc.): Flat			relief (concave, co			Slor	_{pe (%):} None
Subregion (LRR or MLRA): LRRP 133	В	Lat: 32.44555		ong: -93.8		Sidj	tum: 84
Soil Map Unit Name: Keithville		Lat.				ation: none	illum -
	alta tradeol for	man man at a com	. Y 1/2				
Are climatic / hydrologic conditions on the							
Are Vegetation, Soil, or Hy						resent? Yes _>	No
Are Vegetation, Soil, or Hy	/drology	_ naturally problema	atic? (If nee	eded, expla	in any answe	rs in Remarks.)	
SUMMARY OF FINDINGS - Att	ach site ma	ap showing sam	pling point lo	cations,	transects	, important f	eatures, etc.
Hydrophytic Vegetation Present?	Yes	No X		100.000			
Hydric Soil Present?	Yes		is the Sampled	V			
Wetland Hydrology Present?	Yes	No X	within a Wetland	d?	Yes	No_^_	_
HYDROLOGY							
Wetland Hydrology Indicators:				Sec	ondary Indica	tors (minimum of	(two required)
Primary Indicators (minimum of one is re	auired; check	all that apply)			Surface Soil	E WEEK	
Surface Water (A1)		atic Fauna (B13)				etated Concave	Surface (B8)
High Water Table (A2)		Deposits (B15) (LR	R U)		Drainage Par		
Saturation (A3)	Hydr	ogen Sulfide Odor (0	21)		Moss Trim Li	nes (B16)	
Water Marks (B1)	10 (0.0000)	ized Rhizospheres a				Water Table (C2)	
Sediment Deposits (B2)	12 EUL 11 10 10 10 10 10 10 10 10 10 10 10 10	ence of Reduced Iro		[Crayfish Burn		
Drift Deposits (B3)		ent Iron Reduction in	Tilled Soils (C6)	Η		sible on Aerial In	nagery (C9)
Algal Mat or Crust (B4) Iron Deposits (B5)		Muck Surface (C7) er (Explain in Remark	·e\		Shallow Aqui	Position (D2)	
Inundation Visible on Aerial Imagery		t (Explain in Iteman	.s _j	Ħ	FAC-Neutral		
Water-Stained Leaves (B9)	,,					oss (D8) (LRR T	r, u)
Field Observations:			1				
		Depth (inches):					
		Depth (inches):					V
Saturation Present? Yes (includes capillary fringe)	_ No_X	Depth (inches):	Wet	land Hydro	ology Presen	t? Yes	No X
Describe Recorded Data (stream gauge	, monitoring we	ell, aerial photos, pre	vious inspections).	, if available	3:		
Remarks:							

Sa	mpling Point: _S-	7
Dominance Test worksheet	:	
Number of Dominant Species That Are OBL, FACW, or FAC		_ (A)
Total Number of Dominant Species Across All Strata:	1	_ (B)
Percent of Dominant Species That Are OBL, FACW, or FAC		_ (A/B)
Prevalence Index workshee	it:	
Total % Cover of:	Multiply by:	=2
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	

3.						
*		= Total Co	ver	OBL species	x1=_	
50% of total cover:	20%	-		FACW species	x 2 = _	
Sapling/Shrub Stratum (Plot size:)		or total cover		FAC species	x 3 =	
1				FACU species	x 4 = _	
h				UPL species	x 5 = _	
2		-		Column Totals:		
3						
1		-		Prevalence Inde		100
5			-	Hydrophytic Vegetat		
5				1 - Rapid Test for	Hydrophytic Ve	etation
/				2 - Dominance Te	st is >50%	
3				3 - Prevalence Inc	iex is ≤3.0¹	
		_ = Total Co		Problematic Hydro	ophytic Vegetatio	on¹ (Explain)
50% of total cover:	20%	of total cover	r			
Herb Stratum (Plot size:)			Dec Notation and	1Indicators of hydric so	il and wetland h	ydrology must
1. dropseed (Sporobolus indicus)	60	- <u>Y</u>	FACU	be present, unless dis	turbed or proble	natic.
2. orange milkwort (Polygala lutea)	5	<u>N</u>	FACW	Definitions of Four V	egetation Strat	90
3. blackeyed susan (Rudbeckia hirta)	10	N	FACU	Tree - Woody plants,	evoluding vinee	3 in /7.6 cm) or
ſ				more in diameter at br	east height (DBI	i), regardless of
5		353		height.		
3			8 8	Sapling/Shrub - Woo	dv plants exclu	fing vines less
7				than 3 in. DBH and gre	eater than 3.28 f	(1 m) tall.
3.				Hart All barbarass	/	
)				Herb - All herbaceous of size, and woody pla	nts less than 3.2	ants, regardiess 8 ft tall.
10						
11				Woody vine – All woo height.	idy vines greater	than 3.28 ft in
12.				neight		
	75	= Total Co	wae			
50% of total cover: 37.5			1150			
	20%	oi total cover	10			
Woody Vine Stratum (Plot size:)						
1		-	_			
2			-			
3						
!				8		
5		TOWN THE		Hydrophytic		
		_ = Total Co		Vegetation Present? Yes	es No	x
50% of total cover:	20% (of total cover	rs	r resent:	NO	

Absolute Dominant Indicator

Depth	scription: (Describe Matrix	to the de		lox Featur		or commit	, the absence of th	and and the same a
(inches)	Color (moist)	%	Color (moist)	%_	Type ¹	Loc2	Texture	Remarks
0-6	10YR 3/6	100					sa loam	
6-10	7.5YR 4/6	100					cl sa	
10-18	2.5YR 4/8	80	7.5YR 7/1	20			sa cl	
lydric Soil Histoso	30 S S S S S S S S S S S S S S S S S S S		LRRs, unless oth Polyvalue E	erwise no Below Surf	ted.) ace (S8) (L	.RR S, T, I	Indicators for P U)	Pore Lining, M=Matrix. Problematic Hydric Soils ³ : (A9) (LRR O)
Black H Hydrog Stratifie Organi 5 cm M Muck F 1 cm M Deplete Thick D Coast F Sandy Sandy Strippe Dark S	Epipedon (A2) Histic (A3) Jen Sulfide (A4) Jen Sulfide (A4) Jen Sulfide (A5) Jen Bodies (A6) (LRR F Mucky Mineral (A7) (L Jen Below Dark Surface Jerk Surface (A12) Prairie Redox (A16) (Mucky Mineral (S1) (Gleyed Matrix (S4) Jen Matrix (S6) Jen Matrix (S6) Jen Matrix (S7) (LRR P, 1) Jen Mucky (S7) (LRR P, 1) Jen Matrix (S6) Jen Matrix (S6) Jen Matrix (S7) (LRR P, 1) Jen Matrix (S7) (LRR P, 1) Jen Matrix (Jen Matrix (S6) Jen Matrix (Jen Matrix (J	RR P, T, U U) ce (A11) MLRA 150 (LRR O, S)	Redox Dep Mari (F10) Depleted O Iron-Manga MA) Umbric Sur Delta Ochri Reduced V Pledmont F	cky Minera yed Matrix (F3) k Surface (ark Surface ressions (I (LRR U) chric (F11 innese Mas face (F13) c (F17) (M ertic (F18)	(F1) (LRF (F2) (F6) (F6) (F8) (MLRA 1 (Ses (F12) ((LRR P, T (LRA 151) (MLRA 15 (Solls (F19)	51) LRR O, P, , U) 60A, 150B) (MLRA 14	Reduced Ve	Material (TF2) w Dark Surface (TF12) ain in Remarks) of hydrophytic vegetation and hydrology must be present, isturbed or problematic.
	nches):						Hydric Soil Pres	ent? Yes No_X

Project/Site: 93-Acre / EH157	7076	City/C	County: Shreveport / C	Caddo Parish	Sampling Date: 7	/20/15
Applicant/Owner: Shreveport A				state: LA	Sampling Point:	
Investigator(s): Jessica Keasl		Section	on, Township, Range: 21		/	
Landform (hillslope, terrace, etc.):			relief (concave, convex, r		Slone	(%): None
Subregion (LRR or MLRA): LRR	P 133B	Lat: 32.4455	Long:9			m: 84
Soil Map Unit Name: Keithville		Lat.	Long.		ation: none	
	on the alte teminal for	e this time of coops V	ton X No. 11			
Are climatic / hydrologic conditions						16.7
Are Vegetation, Soil					resent? Yes X	No
Are Vegetation, Soil	_, or Hydrology	naturally problema	atic? (If needed, e.	xplain any answe	rs in Remarks.)	
SUMMARY OF FINDINGS	 Attach site ma 	ap showing san	npling point locatio	ns, transects	, important fea	tures, etc.
Hydrophytic Vegetation Present?	Yes	No. X				
Hydric Soil Present?	Yes		Is the Sampled Area	2390	V	
Wetland Hydrology Present?	Yes	No X	within a Wetland?	Yes	No_X	
HYDROLOGY						
Wetland Hydrology Indicators:	o o			Secondary Indica	tors (minimum of tw	vo required)
Primary Indicators (minimum of o		all that anniv)		Surface Soil	SE SYCHES	in tedalien)
Surface Water (A1)		atic Fauna (B13)	~~	_	getated Concave Su	urface (B8)
High Water Table (A2)	0 -002860	Deposits (B15) (LRI	R U)	Drainage Pa		11000 (00)
Saturation (A3)	20 - CANCO	rogen Sulfide Odor (The state of the s	Moss Trim Li		
Water Marks (B1)	Oxic	dized Rhizospheres a	long Living Roots (C3)	Dry-Season	Water Table (C2)	
Sediment Deposits (B2)	23 EUR J. 1988	sence of Reduced Iro		Crayfish Buri	rows (C8)	
Drift Deposits (B3)		ent Iron Reduction in	Tilled Soils (C6)		sible on Aerial Imag	gery (C9)
Algal Mat or Crust (B4)		Muck Surface (C7)	2440		Position (D2)	
Iron Deposits (B5) Inundation Visible on Aerial I	Secure Company of the	er (Explain in Remari	(5)		(DASTER) 6103548.	
Water-Stained Leaves (B9)	magery (b/)				noss (D8) (LRR T, L	J)
Field Observations:			T T			5000
	es No _X	Depth (inches):				
Water Table Present? Y	es No_X	Depth (inches):				3137
Saturation Present? You (includes capillary fringe)	es No_X	Depth (inches):	Wetland H	ydrology Presen	it? Yes	No X
Describe Recorded Data (stream	gauge, monitoring w	ell, aerial photos, pre	vious inspections), if avail	lable:		
Remarks:						

Sampling Point: S-8

	Absolute			Dominance Test worksheet:
Tree Stratum (Plot size:)		Species?		Number of Dominant Species
1				That Are OBL, FACW, or FAC: 0 (A)
2				Total Number of Dominant
3				Species Across All Strata: 1 (B)
4				Percent of Dominant Species
5				That Are OBL, FACW, or FAC: 0 (A/B)
6				PRODUCTOR STOCK CONTROL CONTRO
7				Prevalence Index worksheet:
8				Total % Cover of: Multiply by:
		= Total Co		OBL species 0 x 1 = 0
50% of total cover:	20% of	total cover	ť	FACW species 10 x 2 = 20
Sapling/Shrub Stratum (Plot size:)			ie	FAC species 20 x 3 = 60
1,				FACU species 40 x 4 = 160
2				UPL species 0 x 5 = 0
				Column Totals: _70
3				
4				Prevalence Index = B/A = 3.4
5				Hydrophytic Vegetation Indicators:
6				1 - Rapid Test for Hydrophytic Vegetation
7				2 - Dominance Test is >50%
8		_	_	3 - Prevalence Index is ≤3.01
		= Total Co	ver	☐ Problematic Hydrophytic Vegetation¹ (Explain)
50% of total cover:	20% of	total cover		
Herb Stratum (Plot size:)				Indicators of hydric soil and wetland hydrology must
dropseed (Sporobolus indicus)	40	<u>Y</u>	FACU	be present, unless disturbed or problematic.
2. yaupon (llex vomitoria)	10	N	FAC	Definitions of Four Vegetation Strata:
3. curly dock (Rumex crispus)	10	N	FAC	To a March of the Control of the Con
4. bladdersedge (Carex inturnescens)	10	N	FACW	Tree – Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of
5.				height.
6				CarllaniChark Wardenbark analysis days large
				Sapling/Shrub – Woody plants, excluding vines, less than 3 in, DBH and greater than 3.28 ft (1 m) tall.
7				AND THE RESERVE AND THE PROPERTY OF THE PARTY OF THE PART
8				Herb - All herbaceous (non-woody) plants, regardless
9				of size, and woody plants less than 3.28 ft tall.
10,				Woody vine - All woody vines greater than 3.28 ft in
11.	- —			height,
12		-		
		= Total Co		
50% of total cover: 35	20% of	total cover	14	
Woody Vine Stratum (Plot size:)				
t				
2				
3				
4				NAME OF THE PARTY
				Hydrophytic
4		= Total Co	ver	Hydrophytic Vegetation Present? Yes No _X

Depth	scription: (Describe Matrix			dox Featu					75
(inches) 0-4	Color (moist) 5YR 4/6	100	Color (moist)	%	Type ¹	Loc2	Texture sa loam		Remarks
4-14	5YR 5/6	80	5YR 6/1	20		-	sa silt		
		+	3110/1				1 		
14-18	10YR 66	10				_	sa silt		
Histosi Histosi Histosi Black I Hydrog Stratifi Organi 5 cm N Muck I 1 cm N Deplet Thick I Coast	Concentration, D=De il Indicators: (Appli ol (A1) Epipedon (A2) Histic (A3) gen Sulfide (A4) ed Layers (A5) ic Bodies (A6) (LRR Mucky Mineral (A7) (LRR Muck (A9) (LRR P, T) ed Below Dark Surfa Dark Surface (A12) Prairie Redox (A16) Mucky Mineral (S1)	P, T, U) RR P, T, U U) ce (A11)	Polyvalue I Polyvalue I Thin Dark I Loamy Mu Loamy Gle Depleted M Redox Dar Nedox Dep Redox Dep Mart (F10) Depleted C I ron-Manga MAI Umbric Sui Delta Ochr	Below Surface (Socky Minerally (F3) Matrix (F1) Matrix	oted.) face (S8) (L face (S8) (L face (S8) (L face (S8) (L face (F1) (L face (F7) face (F7) face (F7) face (F1) face	LRR S, T, I T, U) R O) 51) (LRR O, P,	Indicators f In	or Problem Jick (A9) (LF Jick (A10) (L d Vertic (F1 Int Floodplai Jous Bright L A 153B) Tent Materia Allow Dark Explain in Relators of hydrolog And hydrolog	.RR S) 8) (outside MLRA 150A,B n Soils (F19) (LRR P, S, T) oamy Soils (F20) I (TF2) Surface (TF12)
Sandy Sandy	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6)	1 - 600		loodplain	Solls (F19)	(MLRA 14		153D)	
Sandy Sandy Strippe Dark S estrictive Type:	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A) IA 149A, 153C,		· ·
Sandy Sandy Strippe Dark S sestrictive Type:	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) surface (S7) (LRR P,):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A)		Yes No_X
Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A) IA 149A, 153C,		Yes No_X
Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A) IA 149A, 153C,		Yes No _X
Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A) IA 149A, 153C,		Yes No_X
Sandy Sandy Strippe Dark Sestrictive Type: Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19)	(MLRA 14	19A) IA 149A, 153C,		
Sandy Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19) amy Solls () (MLRA 14 (F20) (MLR	19A) IA 149A, 153C,		
Sandy Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19) amy Solls () (MLRA 14 (F20) (MLR	49A) RA 149A, 153C, Hydric Soil F		
Sandy Sandy Sandy Strippe Dark S estrictive Type: _ Depth (i	Gleyed Matrix (S4) Redox (S5) ed Matrix (S6) Surface (S7) (LRR P, e Layer (if observed):	Pledmont F	loodplain	Solls (F19) amy Solls () (MLRA 14 (F20) (MLR	49A) RA 149A, 153C, Hydric Soil F		

	157076	City/C	county: Shreveport	Caddo Parish	Sampling Date: 7/20/15	
Applicant/Owner: Shrevepo		20-04-0800	en-esomes vit	State: LA	Sampling Point: S-9	
Investigator(s): Jessica Kea		Section	on, Township, Range:	21 T17N R14W	1	
Landform (hillslope, terrace, etc		Local	relief (concave, convex	none None	Slope (%): None	
Subregion (LRR or MLRA): LF		Lat: 32.4484		-93.8185	Datum: 84	
Subregion (LRR or MLRA):	lla.	Lat: OZ. 1101	Long:		100 CO	
Soil Map Unit Name: Keithvi				NWI classific	ation: none	
Are climatic / hydrologic condition	ons on the site typical f	or this time of year? Y	/es_X No	(If no, explain in R	emarks.)	
Are Vegetation, Soil	, or Hydrology	significantly distur	bed? Are "Norma	al Circumstances" p	resent? Yes X No	
Are Vegetation, Soil	, ar Hydrology	naturally problems	atic? (If needed,	explain any answe	rs in Remarks.)	
SUMMARY OF FINDING	S – Attach site n	nap showing san	npling point locati	ons, transects	, important features, etc	
Hydrophytic Vegetation Prese	ent? Yes	No X				
Hydric Soil Present?	Yes	No X	Is the Sampled Area	V		
Wetland Hydrology Present?	Yes	No X No X	within a Wetland?	Yes	No_^	
HYDROLOGY						
Wetland Hydrology Indicato	nce.			Secondary Indica	tors (minimum of two required)	
Primary Indicators (minimum		k all that anniv)		Surface Soil	e: Orcean	
Surface Water (A1)		uatic Fauna (B13)			petated Concave Surface (B8)	
High Water Table (A2)		arl Deposits (B15) (LRI	R UI)	Drainage Pat		
Saturation (A3)	27 - 25 175 3	drogen Sulfide Odor (Moss Trim Li		
Water Marks (B1)	5.5		long Living Roots (C3)		Water Table (C2)	
Sediment Deposits (B2)	Pr	esence of Reduced Iro	on (C4)	Crayfish Burn	rows (C8)	
Drift Deposits (B3)	∐ Re	cent Iron Reduction in	Tilled Soils (C6)	Saturation Vi	sible on Aerial Imagery (C9)	
Algal Mat or Crust (B4)		in Muck Surface (C7)			Position (D2)	
Iron Deposits (B5)		her (Explain in Remark	ks)	Shallow Aqui		
Inundation Visible on Aer				FAC-Neutral	448.488810010140	
Water-Stained Leaves (B Field Observations:	9)		Ť	☐ Spnagnum n	noss (D8) (LRR T, U)	
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 Presen	t? Yes No X	
(includes capillary fringe)		25/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20/18/20	55 (Contestional)		· · · · · · · · · · · · · · · · · · ·	
Describe Recorded Data (stre	am gauge, monitoring	well, aerial photos, pre	evious inspections), if av	ailable:		
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						
Remarks:						

VEGETATION (Four Strata) - Use scientific names of plants. Sampling Point: S-9 Absolute Dominant Indicator Dominance Test worksheet: Tree Stratum (Plot size: _____) % Cover Species? Status Number of Dominant Species That Are OBL, FACW, or FAC: 1 ____ (A) Total Number of Dominant 2 (B) Species Across All Strata: Percent of Dominant Species That Are OBL, FACW, or FAC: _ (A/B) Prevalence Index worksheet: Total % Cover of: Multiply by: 0 x1=0 OBL species = Total Cover __ x2 = 0 FACW species 50% of total cover: ____ 20% of total cover: ___ x 3 = 60 FAC species Sapling/Shrub Stratum (Plot size: _____) __ x 4 = 260 65 FACU species ___x5=0 0 UPL species Column Totals: 85 (A) 320 (B) Prevalence Index = B/A = 3.05 Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0¹ = Total Cover Problematic Hydrophytic Vegetation (Explain) 50% of total cover: _____ 20% of total cover: ____ Herb Stratum (Plot size: Indicators of hydric soil and wetland hydrology must 1. dropseed (Sporobolus indicus) FACU be present, unless disturbed or problematic. 2 bagpod (Sesbania vesicaria) 20 Y FAC Definitions of Four Vegetation Strata: _____5 N 3 goose grass (Eleusine indica) FACU Tree - Woody plants, excluding vines, 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of Sapling/Shrub - Woody plants, excluding vines, less than 3 in. DBH and greater than 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vine - All woody vines greater than 3,28 ft in height. 85 = Total Cover

50% of total cover: 42.5 20% of total cover: 17

50% of total cover: 20% of total cover:

= Total Cover

Remarks: (If observed, list morphological adaptations below).

Woody Vine Stratum (Plot size: _____)

Yes ____ No X

Hydrophytic Vegetation

Present?

Profile Desc	ription: (Describe	e to the dept	h needed to doc	ument the	indicator	or confirm	n the absence o	of indicators.)
Depth	Matrix			lox Feature			#4.04000000V	10 1442/10/110/14/00
(inches)	Color (moist)	- %	Color (moist)	%	Type ¹	Loc2	Texture	Remarks
0-18	2.5YR 4/6	90	5YR 7/1	10		-	clay	
a								
		-				-		
					-			
: 				-				<u>=</u>
		-		27-		S		= = = = = = = = = = = = = = = = = = =
Type: C=C	oncentration, D=De	pletion RM=	Reduced Matrix N	//S=Maske	d Sand G	rains	2 ocation: I	PL=Pore Lining, M=Matrix.
	Indicators: (Appli					2002		or Problematic Hydric Soils ³ :
☐ Histosol	경영경우 아이를 가게 하는데 아니라 바다는		☐ Polyvalue B		1811 (Th	LRR S. T. I		uck (A9) (LRR O)
The second secon	oipedon (A2)		Thin Dark S					uck (A10) (LRR S)
	stic (A3)		Loamy Muc				G-1 - C-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G-1 G	d Vertic (F18) (outside MLRA 150A,B)
Hydroge	en Sulfide (A4)		Loamy Gle		(F2)		□ Piedmo	nt Floodplain Soils (F19) (LRR P, S, T)
	d Layers (A5)		☐ Depleted M				1 To	ous Bright Loamy Soils (F20)
	Bodies (A6) (LRR		Redox Dark				2000	A 153B)
	icky Mineral (A7) (L		Depleted D		7233			rent Material (TF2)
The second secon	esence (A8) (LRR	20.00	Redox Dep		-8)			nallow Dark Surface (TF12)
	ick (A9) (LRR P, T) d Below Dark Surfa		Mari (F10) Depleted O		WILD A	E41	U Other (E	Explain in Remarks)
	ark Surface (A12)	re (ATT)	Iron-Manga			C/13/31	T) ³ Indica	ators of hydrophytic vegetation and
The second secon	rairie Redox (A16)	(MLRA 150A						and hydrology must be present,
-	Mucky Mineral (S1)		Delta Ochri			CT I W I		ss disturbed or problematic.
	Bleyed Matrix (S4)	8 6000	Reduced V		Carlotte and the second)	.i.
Sandy F	Redox (S5)		Pledmont F	loodplain S	Solls (F19)	(MLRA 14	49A)	
- The Control of the	Matrix (S6)		Anomalous	Bright Loa	my Solls	(F20) (MLR	RA 149A, 153C,	153D)
The second of th	rface (S7) (LRR P,	(C. C. S.						
	Layer (if observed):						
Туре:	34 Ki						90 40000000	
Depth (in	ches):		_				Hydric Soil F	Present? Yes No X
Remarks:								

APPENDIX D COMMON ACRONYMS

COMMON ACRONYMS

CLOMR Conditional Letter of Map Revision

CWA Clean Water Act

DFIRM Digital Flood Insurance Rate Map

FEMA Federal Emergency Management Administration

FIRM Flood Insurance Rate Map

GIS Geographic Information System

GPS Global Positioning System

IH Interstate Highway

NRCS Natural Resources Conservation Service

NRPW Non-Relatively Permanent Water

OHWM Ordinary High Water Mark

PJD Preliminary Jurisdictional Determination

RHA Rivers and Harbors Act

RPW Relatively Permanent Water

TNRIS Texas Natural Resource Information System

TNW Traditionally Navigable Water

U.S. United States

USACE U.S. Army Corps of Engineers

USDA U.S. Department of Agriculture

USFWS U.S. Fish and Wildlife Service

USGS U.S. Geologic Survey

WOUS Waters of the U.S.