



# Waters of the U.S. Delineation Report - Final

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State Highway (SH) 72 from Farm-to-Market  
Road (FM) 237 to US Highway (US) 87

(CSJs 0270-01-051 and 0271-10-014)

Texas Department of Transportation, Yoakum District

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## 1.0 Introduction

The Texas Department of Transportation (TxDOT) conducted a waters of the U.S. (WOTUS) delineation for a proposed road improvement project along a 14-mile stretch of State Highway (SH) 72 extending from the City of Yorktown north to the City of Cuero in Dewitt County, Texas (CSJs 0270-01-0051 and 0271-10-014). The delineation was completed October 17, 2019.

The delineation was performed to evaluate the presence of jurisdictional WOTUS and identify their boundaries within the project area. It is anticipated that this waters of the U.S. delineation report will be used in support of the jurisdictional determination process for on-site aquatic resources. If it is determined that jurisdictional resources will be impacted, this waters of the U.S. delineation report will also support applications for regulatory permits that may be required from the United States Army Corps of Engineers (USACE) for proposed construction activities.

Waterbodies were delineated according to USACE Regulatory Guidance Letter (RGL) 05-05 Ordinary High Water Mark (OHWM) Identification for non-tidal waters and the Mean High Tide (MHT) line for tidal waters. As required under Section 404 of the Clean Water Act (CWA), wetlands were delineated using the routine method described in the USACE 1987 Wetlands Delineation Manual (1987 Manual) and the USACE Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0) (November 2010). Wetland types and boundaries were determined through initial map review, followed by fieldwork involving the examination of three (3) parameters: hydrology, vegetation, and soils. Delineation criteria and indicators for each of these parameters are outlined in the 1987 Manual and the 2010 Regional Supplement. The 2010 Regional Supplement presents wetland indicators, delineation guidance, and other information that is specific to the Great Plains Region, per the regional supplement. Wetlands were classified according to the Cowardin Classification System used for the United States Fish and Wildlife Service's (USFWS) National Wetlands Inventory (NWI).

This document contains the following four (4) attachments:

- **Attachment 1 – Figures:** contains maps of the project area
- **Attachment 2 – Wetland Determination Data Forms:** documents the three (3) criteria for wetlands at all sample points
- **Attachment 3 – Historical Aerial Photographs:** contains historical aerial imagery, starting with the oldest photographs first
- **Attachment 4 – Site Photographs:** contains photographs taken during the site visit(s)

## 2.0 Project Overview

TxDOT is proposing improvements to an approximately 14-mile stretch of SH 72 extending from the south at the City of Yorktown to the north to the City of Cuero, Dewitt County, Texas. The proposed project is situated in a rural area located entirely within Dewitt County. The project is necessary to meet the growing demands of vehicular traffic in the area.

The project begins at the intersection of SH 72 and East 8<sup>th</sup> Street in the City of Yorktown, Texas, and continues to where a bridge crosses the Guadalupe River. The Guadalupe River bridge is a separate permitting project and therefore excluded from the study area; henceforth, the crossing at the Guadalupe River will not be discussed in this report. From the Guadalupe River Bridge, the existing facility continues for approximately two miles where the proposed project ends at the intersection of SH 72 and US 87 in the City of Cuero, Texas.

The proposed ROW width is typically 300 feet wide and would include an approximately 100-foot-wide vegetated median. No sidewalks or easements are currently proposed. Approximately 52.4 acres of new ROW would be required.

**Attachment 1 - Figures** contains numbered maps of the project area. **Figure 1** provides a vicinity map that depicts the location of the project area, **Figure 2** is an aerial overview map of the project area, and **Figure 3a-3c** is a 7.5-minute series United States Geological Survey (USGS) topographic overview map. **Figure 4a-4c** depicts the National Wetlands Inventory (NWI) features within and around the project area, **Figure 5a-5i** depicts the mapped soil units within and around the project area, **Figure 6a-6c** depicts FEMA designated 100-year floodplain areas within and around the project area, **Figure 7a-7i** shows the project area overlain on a Light Detection and Ranging (LiDAR) base map, and **Figure 8** depicts water features identified during the delineation field investigations in October 2019.

### 3.0 Ecological Site Description

The project area is located within the Southwest Plateaus and Plains Range and Cotton Region (LRR I), and is more specifically located in Major Land Resource Area (MLRA) Northern Rio Grande Plain (83A). This area is entirely within Texas. This plain generally is nearly level, but smooth hills and valleys are gently rolling. Valleys are narrow to broad, and hills are mostly in the eastern part of the area. Elevation ranges from 200 feet in the southeastern part of the area to 1,000 feet in the northwestern part. Cretaceous limestone deposits underlie the northern edge of this MLRA. Lagoonal, estuarine, beach, and deltaic sediments were deposited in a wide swath paralleling the current coastline of Texas and other Gulf States. Fine-textured sediment deposited in lagoons became shale layers, and the coarser textured sediments became sandstone layers. The tertiary rocks are at the surface in this MLRA, and they are progressively younger from west to east. The average annual precipitation is 21 to 37 inches in most of the area. Most rainfall occurs as high-intensity, convective thunderstorms during the growing season. The average annual temperature is 67 to 72 degrees Fahrenheit. The freeze-free period averages 315 and ranges from 275 to 350 days. The dominant soil orders in this MLRA are Alfisols, Mollisols, and Vertisols. The soils are generally very deep, well-drained or moderately well-drained, and loamy or clayey. The area supports open grassland vegetation with scattered mesquite (*Prosopis glandulosa*), live oak (*Quercus virginiana*), and other trees. Little bluestem (*Schizachyrium scoparium*), sideoats grama (*Bouteloua curtipendula*), lovegrass (*Eragrostis* sp.), tridens (*Tridens* sp.), fourflower trichloris (*Trichloris pluriflora*), Arizona cottontop (*Digitaria californica*), plains bristlegrass (*Setaria leucopila*), and other mid grasses are dominant on the deeper soils.

Currently, the project area consists of a mix of single-family residences, agricultural operations, and undeveloped parcels. The open space/undeveloped parcels are dominated by pasture with scattered wooded areas, primarily along mapped streams and floodplain. Dominant habitat types included Disturbed Prairie, Post Oak Savanna, and Urban in the proposed and existing ROW.

## 4.0 Methods

### 4.1 Map and Database Review

The following information sources were considered and, if applicable, consulted before and during the field delineation to assist in the identification of potential waters of the U.S. within the project area.

#### 4.1.1 USGS Topographic Maps

USGS topographic maps illustrate elevation contours, drainage patterns, and hydrography. The *Yorktown East*, *Blackwell Lake*, and *Cuero*, Texas, USGS Quad maps were reviewed to determine the likelihood of the project area containing jurisdictional waterbodies.

#### 4.1.2 USFWS NWI Data

NWI data was reviewed as a contributing resource to help identify potential wetland features located within the project area.

### **4.1.3 NRCS Soil Survey Data**

The United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) maintains an online Web Soil Survey database. The data provided in the Web Soil Survey provides a good basis for the soil textures and types one can expect to find at a particular delineation area. NRCS-mapped soil types within the project area were reviewed to determine which of the soils exhibit hydric characteristics. NRCS-mapped soil types are assigned a hydric indicator status of “hydric” or “non-hydric” by the National Technical Committee for Hydric Soils.

### **4.1.4 Aerial Photography**

Aerial photography provides good insight into the state and function of land resources. Signs of inundation and vegetative signatures on aerial images indicate whether land might be functioning as a wetland or supporting a stream system. Historic and current aerial photography was reviewed utilizing Google Earth, before and during the field delineation, to understand local hydrology within the project area further.

### **4.1.5 FEMA FIRM**

The Federal Emergency Management Agency (FEMA) maintains flood insurance rate maps (FIRMs). The FIRM, was reviewed to determine if FEMA-designated 100-year floodplain is mapped within the project area. The USACE utilizes the FEMA-designated 100-year floodplain to assist in determining the jurisdiction of aquatic features. FEMA FIRM data was reviewed to evaluate the locations of mapped floodplains and aquatic resources within the project area.

### **4.1.6 LiDAR**

Light detection and ranging (LiDAR) is a remote sensing technique that measures spatial and temporal data. The TNRIS online database provides LiDAR information for each USGS Quad, where available. LiDAR data was obtained for the *Yorktown East*, *Blackwell Lake*, and *Cuero*, Texas, USGS Quads to evaluate elevation changes throughout the project area.

## **4.2 Waters of the U.S. Delineation**

With respect to any non-tidal waterbodies located within the project area, wetland ecologists followed the methodology outlined in RGL 05-05. For any tidal water bodies located within the project area, wetland ecologists identified the MHT line by observing changes in vegetation, drift deposits of shells and debris, and physical markings or characteristics along the shoreline that may indicate the general height reached by a rising tide.

Data collected for any waterbodies include average water depth, average width per waterbody, length of linear segments within the project boundary, and water flow classification (i.e., tidal, non-tidal, ephemeral, intermittent, and/or perennial).

The wetland delineation was conducted based on the 1987 Manual and the 2010 Regional Supplement, as well as the three (3) parameters described within. The three-parameter approach requires investigation of hydrological characteristics, hydrophytic vegetation, and hydric soils at selected sample points within a project area. Sample points are located to ascertain upland/wetland boundaries and to record significant spatial changes in wetland plant communities. All three (3) indicator parameters must be met for the area to be classified as a wetland. See subsections on Hydrology, Vegetation, and Soils, below, for indicator-specific information.

Geospatial data was collected utilizing a Trimble Geo XT 6000 Series Global Positioning System (GPS) with sub-meter accuracy. All geospatial data was collected in accordance with the April 21, 2016 memorandum from the Galveston District of the USACE entitled, Standard Operating Procedure, Recording Jurisdictional Delineations using GPS.”

### 4.2.1 Hydrology

Wetland hydrology is characterized when, under normal circumstances, the surface is either inundated or the upper horizon(s) of the soil are saturated at a sufficient frequency and duration to create anaerobic conditions. Seasonal and long-term rainfall patterns, local geology and topography, soil type, local water table conditions, and drainage are factors that influence hydrology.

Wetland hydrology indicators include oxidized rhizospheres along living roots, saturated soils, standing surface water, algal mat, aquatic fauna, high water table, iron deposits, sparsely vegetated concave surface, geomorphic position, moss trim lines, water-stained leaves, crawfish burrows, watermarks, drainage patterns, and surface soil cracks. During the field survey, these indicators were used to determine if an area exhibited wetland hydrology.

### 4.2.2 Vegetation

In accordance with the procedure set forth in the 1987 Manual and the 2010 Regional Supplement, the hydrophytic status of vegetation communities was determined by identifying dominant species and, if necessary, calculating a "Prevalence Index," as defined in the 1987 Manual.

Individual plant species were checked against the current National Wetland Plant List (NWPL), and their regional wetland indicator status was determined. Species are classified as follows:

- Obligate Wetland (OBL) if they almost always occur in wetlands (>99 percent of the time)
- Facultative Wetland (FACW) if they usually occur in wetlands (67-99 percent of the time)
- Facultative (FAC) if they are equally likely to occur in wetlands and non-wetlands (34-66 percent of the time)
- Facultative Upland (FACU) if they usually occur in non-wetlands (67-99 percent of the time)
- Obligate Upland (UPL) if they almost always occur in non-wetlands (>99 percent of the time)

A no indicator (NI) status is recorded for those species for which insufficient information is available to determine an indicator status.

Hydrophytic (wetland) vegetation is considered prevalent where more than 50% of the dominant species in a plant community have an indicator status of OBL, FACW, or FAC. However, in cases where the vegetation community does not meet this hydrophytic threshold, but indicators of hydric soils and wetlands hydrology are present, the prevalence index can be applied. Calculation of this index is based on consideration of both dominant and non-dominant plants in the vegetation community, whereby each indicator status category is given a numeric code and weighted by absolute percent cover. The prevalence index ranges from 1 to 5 and an index of 3.0 or less signifies that hydrophytic vegetation is present. In the current delineation, and as shown on the wetland determination data forms in Attachment 2, a prevalence index was calculated for each sample point's vegetation community.

### 4.2.3 Soils

Hydric soils are defined as soils that are saturated, flooded, or ponded long enough during the growing season to develop anaerobic conditions in the upper horizons. Anaerobic conditions created by repeated or prolonged saturation or flooding result in permanent changes in soil color and chemistry. The changes in soil color are used to differentiate hydric from non-hydric soils.

At each sample point, in areas where the absence of inundation or heavy saturation allowed, a pit was excavated to a depth of at least 16 inches to reveal soil profiles and to determine whether or not positive indicators of hydric soils were present. Hydric soil indicators relate to color, structure, organic content, and the presence of reducing conditions. Color characteristics (Hue, Value, and Chroma) were recorded using Munsell® Charts.

## 5.0 Results

### 5.1 Map and Database Review

#### 5.1.1 USGS Topographic Maps

USGS topographic maps were reviewed to ascertain the potential presence of surface waters and wetlands. Topographic maps indicate that the project area is intersected by two unnamed tributaries to Yorktown Creek, Woods Creek, Cottonwood Creek, an unnamed tributary to Twelvemile Creek, Shiloh Creek and an unnamed tributary, five unnamed tributaries to Deer Creek, Lost Creek and an unnamed tributary, and Gohlke Creek and an unnamed tributary.

#### 5.1.2 USFWS NWI Data

Nineteen riverine NWI features were identified within the project area; sixteen Riverine Intermittent Stream Bed Seasonally Flooded, two Riverine Unconsolidated Bottom Permanently Flooded, and one Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded were identified. **Table 1** summarizes the NWI features within the project area. Refer to **Figure 4** in **Attachment 1** for an illustration of the NWI features in and surrounding the project area.

**Table 1: NWI Features**

Classification Code	Code Description	Wetland Type
R4SBC	Riverine Intermittent Stream Bed Seasonally Flooded	Riverine Intermittent
R5UBH	Riverine Unconsolidated Bottom Permanently Flooded	Riverine
R2UBH	Riverine Lower Perennial Unconsolidated Bottom Permanently Flooded	Riverine Lower Perennial

#### 5.1.3 NRCS Soil Survey Data

**Table 2** summarizes the soil units represented within the project area based on information collected from the Web Soil Survey database. Refer to **Figure 5** in **Attachment 1** for an illustration of the mapped soil units in and surrounding the project area.

**Table 2: NRCS Soil Units**

Soil Unit	Soil Unit Name	Description	Hydric/Non-hydric
CuB	Cuero sandy clay loam, 0 to 2 percent slopes	Nearly level to gently sloping soil on uplands and ridges.	No
Dg	Degola soils, frequently flooded	Nearly level soils along flood plains of creeks. Surface layer is clay or clay loam.	Yes
DuB	Denhawken-Elmendorf complex, 0 to 3 percent slopes	Nearly level to gently sloping soils on uplands. Denhawken soil is on microhighs about 2 to 8 inches higher than adjoining Elmendorf soil microdepressions.	No

**Table 2: NRCS Soil Units**

Soil Unit	Soil Unit Name	Description	Hydric/Non-hydric
FeC2	Ferris soils, 3 to 5 percent slopes, eroded	Gently sloping soils on uplands with a few broad, shallow gullies.	No
LeC	Leemont clay, 3 to 5 percent slopes	Gently sloping soils on uplands and ridges, in irregularly shaped areas.	No
LmC	Leming loamy fine sand, 0 to 5 percent slopes	Nearly level to gently sloping soil on uplands. Slopes are dominantly 1 to 3 percent, but range from 0 to 5 percent. Often on terraces on drainageways.	No
MaA	Mabank fine sandy loam, 0 to 1 percent slopes	Nearly level soil on uplands, irregularly shaped areas on lower parts of the landscape such as stream terraces.	Yes
Mf	Meguín soils, frequently flooded	Nearly level soils on the flood plains of the Guadalupe River and other streams in the county. Variable surface layer includes silty clay loam, clay loam, and clay.	Yes
MgC	Miguel fine sandy loam, 3 to 5 percent slopes	Gently sloping soil, irregularly shaped areas on low hills.	No
MgC2	Miguel fine sandy loam, 2 to 5 percent slopes, eroded	Gently sloping soil on uplands, irregularly shaped areas on low hills. Present surface layer of brown fine sandy loam, with clay subsoil.	No
MoB	Monteola clay, 1 to 3 percent slopes	Gently sloping soil on uplands and hills in irregularly shaped areas.	Yes
NsC	Nusil-Rhymes association, 0 to 5 percent slopes	Nearly level to gently sloping soils; Nusil soil occurs in swales, and Rhymes soil occurs on ridges and dunes on stream terraces.	Yes
OrB	Orelia fine sandy loam, 0 to 2 percent slopes	Nearly level to gently sloping soils in areas concave and irregular in shape, such as stream terraces.	No
PaA	Papalote fine sandy loam, 0 to 1 percent slopes	Nearly level soil on uplands and terraces. Surface layer of fine sandy loam with clay subsoil.	Yes
PaB	Papalote fine sandy loam, 1 to 3 percent slopes	Gently sloping soil on uplands and terraces in irregularly shaped areas.	Yes
RuB	Runge fine sandy loam, 1 to 3 percent slopes	Gently sloping soil on uplands and hillslopes in irregularly shaped areas.	Yes
RuC	Runge fine sandy loam, 2 to 5 percent slopes	Gently sloping soil on uplands in irregularly shaped areas. Fine sandy loam surface layer with sandy clay loam subsoil.	No
SaB	Sarnosa fine sandy loam, 1 to 3 percent slopes	Gently sloping soil on uplands. Surface layer is fine sandy loam, with sandy clay loam layer underneath.	No
SaC	Sarnosa fine sandy loam, 2 to 5 percent slopes	Gently sloping soil on uplands and hillslopes in irregularly shaped areas.	No

**Table 2: NRCS Soil Units**

Soil Unit	Soil Unit Name	Description	Hydric/Non-hydric
SaD	Sarnosa fine sandy loam, 5 to 8 percent slopes	Sloping soil on uplands; on ridgetops, may occur below Shiner soils.	No
SbC2	Sarnosa soils, 3 to 5 percent slopes, eroded	Gently sloping soils on uplands in irregularly shaped areas. Variable soils; most areas are Sarnosa fine sandy loam, but other areas are similar but with thinner surface layer.	No
ShC	Shiner fine sandy loam, 1 to 5 percent slopes	Gently sloping soil on ridgetops in uplands.	No
StC	Straber loamy fine sand, 1 to 5 percent slopes	Gently sloping soil on uplands and ridges in irregularly shaped areas.	No
TeC	Tremona loamy fine sand, 1 to 5 percent slopes	Gently sloping soil on uplands and ridges in irregularly shaped areas.	No
To	Trinity clay, occasionally flooded	Nearly level soil on flood plains of major streams in the county, mostly narrow and long in shape.	Yes
WeC	Weesatche sandy clay loam, 3 to 5 percent slopes	Gently sloping soil on uplands and ridges in irregularly shaped areas.	No
WsA	Wilson clay loam, 0 to 1 percent slopes	Nearly level soil on uplands and stream terraces, at lower positions on the landscape.	Yes

**5.1.4 Aerial Photography**

Historic aerial imagery for the project and surrounding areas was evaluated using color infrared imagery from the National Agriculture Imagery Program (NAIP) for the years 2005, 2009, and 2015. The table below summarizes observations for the project area for each year reviewed. **Attachment 3** contains copies of the historic aerial photographs reviewed for the project area.

**Table 3: Historic Aerial Photography Observations**

Year	Observations
2004	No substantial differences from current aerial photographs and conditions identified during field investigation.
2009	No substantial differences from current aerial photographs and conditions identified during field investigation.
2015	No substantial differences from current aerial photographs and conditions identified during field investigation.

**5.1.5 FEMA FIRM**

A review of FEMA FIRMs indicated the project area is intersected by FEMA-designated 100-year and 500-year floodplain hazard areas. The floodplains are associated with an unnamed intermittent tributary to Fifteen Mile

Creek, Woods Creek, Cottonwood Creek, Shiloh Creek, three unnamed tributaries to Deer Creek, Lost Creek, and the Guadalupe River, with no Base Flood Elevation determined. Floodplain associated with Gohlke Creek contained a Base Flood Elevation ranging from approximately 167 to 168 feet. Refer to **Figure 6** in **Attachment 1** for an illustration of the FEMA FIRM data within and surrounding the project area.

### **5.1.6 LiDAR**

A review of LiDAR data indicated that the majority of the site is at a higher elevation than the FEMA designated 100-year floodplain and that drainage features were present within the project area. However, the eastern portion of the project area is at or below the FEMA designated 100-year floodplain in proximity to the Guadalupe River. Refer to **Figure 7** in **Attachment 1** for an illustration of LiDAR data within the project area.

## **5.2 Waters of the U.S. Delineation**

**Table 4** summarizes the waterbodies/wetlands identified within the project area. Forty-six data points were collected within the project area. Of the mapped features on USGS topographic maps, only five waters of the U.S. were observed and field verified within the project area. Refer to **Figure 8** in **Attachment 1** for a depiction of the boundaries of each waterbody/wetland feature, as well as the location within the project area where data points were collected. Refer to **Attachment 2** for the completed Wetland Determination Data Forms for the project. Refer to **Attachment 4** for representative photographs of each waterbody/wetland feature observed within the project area.

**Table 4: Summary of Waterbody/Wetland Features**

Waterbody or Wetland Number	Name	Type	Latitude, Longitude	Acres within project area (all waterbodies and wetlands)	Linear feet within project area (waterbodies only)	Potentially Jurisdictional (Section 404)?	Potentially Navigable (Section 10)?
Water 1	Cottonwood Creek	Ephemeral stream	29.0197697, -97.44700771	0.03	138.98	Yes	No
Water 2	Shiloh Creek	Ephemeral stream	29.03315148, -97.42749192	0.01	45.96	Yes	No
Water 3	Unnamed tributary to Deer Creek	Ephemeral stream	29.06064465, -97.38746845	0.08	159.75	Yes	No
Water 4	Lost Creek	Ephemeral stream	29.09048593, -97.33545558	0.11	229.36	Yes	No
Water 5	Gohlke Creek	Intermittent stream	29.086938, -97.302325	0.03	80.02	Yes	No
<b>Total</b>				<b>0.26</b>	<b>654.07</b>		

### 5.2.1 Hydrology

Drier than normal conditions were present within the project area at the time of the field investigations. The table below summarizes wetland hydrological indicators identified within the project area. Refer to the wetland determination data forms in **Attachment 2** for the specific hydrology recorded at each sample point.

**Table 5: Wetland Hydrological Indicators**

Wetland Type	Sample Point Name(s)	Primary Wetland Hydrological Indicators	Secondary Wetland Hydrological Indicators
Ephemeral Stream	WDP 12, WDP 18, WDP 27, WDP 40	A1 – Surface Water B1 – Water Marks B2 – Sediment Deposits	B8 – Sparsely Vegetated Concave Surface B10 – Drainage Patterns D2 – Geomorphic Position
Intermittent Stream	No points taken due to erosion control	N/A	N/A

### 5.2.2 Vegetation

Drier than normal conditions were present within the project area at the time of the field investigations. Representative dominant taxa for each distinct habitat type encountered within the project area are listed in **Tables 6-10**. The Mixed Woodlands and Forest vegetation type occurred in one relatively small area where no

data points were collected, so no information about dominant plant species could be provided. Indicator status for each species was obtained from the 2016 NWPL.

**Table 6: Urban Dominant Plant Species**

Strata	Scientific Name	Common Name	NWPL Classification
Tree	<i>Fraxinus pennsylvanica</i>	green ash	FAC
	<i>Prosopis glandulosa</i>	honey mesquite	FACU
Herb	<i>Cynodon dactylon</i>	Bermudagrass	FACU
	<i>Dichanthium annulatum</i>	Kleberg's bluestem	UPL

**Table 7: Agriculture Dominant Plant Species**

Strata	Scientific Name	Common Name	NWPL Classification
Tree	<i>Vachellia farnesiana</i>	sweet acacia	FACU
Sapling/Shrub	<i>Celtis laevigata</i>	sugarberry	FAC
Herb	<i>Ambrosia psilostachya</i>	western ragweed	FACU
	<i>Paspalum notatum</i>	bahiagrass	FAC

**Table 8: Disturbed Prairie Dominant Plant Species**

Strata	Scientific Name	Common Name	NWPL Classification
Herb	<i>Chloris canterai</i>	Paraguayan windmill grass	UPL
	<i>Dicanthium annulatum</i>	Kleberg's bluestem	UPL
	<i>Lolium perenne</i>	perennial rye	FACU
	<i>Paspalum notatum</i>	bahiagrass	FAC
	<i>Sorghum halepense</i>	Johnsongrass	FACU

**Table 9: Riparian Dominant Plant Species**

Strata	Scientific Name	Common Name	NWPL Classification
Tree	<i>Carya illinoensis</i>	pecan	FAC
	<i>Quercus macrocarpa</i>	bur oak	FACU
	<i>Salix nigra</i>	black willow	FACW
	<i>Ulmus americana</i>	American elm	FAC
Herb	<i>Eleocharis palustris</i>	common spikerush	OBL
	<i>Schoenoplectus pungens</i>	common threesquare	OBL
	<i>Sorghum halepense</i>	Johnsongrass	FACU
	<i>Stenotaphrum secundatum</i>	St. Augustine's grass	FAC
	<i>Xanthium strumarium</i>	rough cocklebur	FAC
Woody Vine	<i>Ampelopsis cordata</i>	heartleaf peppervine	FAC
	<i>Nekemias arborea</i>	peppervine	FAC

Strata	Scientific Name	Common Name	NWPL Classification
	<i>Toxicodendron radicans</i>	poison ivy	FACU
	<i>Vitis mustangensis</i>	mustang grape	UPL

**Table 10: Post Oak Savanna Dominant Plant Species**

Strata	Scientific Name	Common Name	NWPL Classification
Tree	<i>Quercus fusiformis</i>	live oak	UPL
Sapling/Shrub	<i>Sesbania drummondii</i>	poisonbean	FACW
	<i>Vachellia farnesiana</i>	sweet acacia	FACU
Herb	<i>Ambrosia psilostachya</i>	western ragweed	FACU
	<i>Solidago canadensis</i>	Canada goldenrod	FACU

### 5.2.3 Soils

Drier than normal conditions were present within the project area at the time of the field investigations. **Table 11** summarizes hydric soil data identified within the project area. Refer to the wetland determination data forms in **Attachment 2** to see the specific soil data recorded at each sample point.

**Table 11: Hydric Soil Indicators**

Wetland Type	Sample Point Name(s)	Hydric Soil Indicator(s)
Ephemeral Stream	WDP 12, WDP 18, WDP 27, WDP 40	F3 – Depleted Matrix
Intermittent Stream	No points taken due to erosion control	N/A

## 6.0 Conclusion

A waters of the U.S. delineation was conducted for the 14-mile stretch of SH 72 extending from the City of Yorktown north to the City of Cuero in Dewitt County, Texas (CSJs 0270-01-0051 and 0271-10-014). The field delineation was completed on October 17, 2019. Five waters of the U.S. were identified and 46 data points were sampled in the project area. Refer to Section 5.2, above, for a table summarizing the waterbodies/wetlands identified within the project area.

Water 1 through Water 5 are relatively permanent waters (RPWs) that exhibit a direct downstream hydrologic connection to a Traditionally Navigable Water (TNW). Water 1, Cottonwood Creek, and Water 2, Shiloh Creek, are tributaries that flow into Twelvemile Creek, which flows into Coletto Creek, which flows into the Guadalupe River, a TNW. Water 3 is an unnamed tributary to Deer Creek, which flows into Sandies Creek, which flows into the Guadalupe River, a TNW. Water 4, Lost Creek, and Water 5, Gohlke Creek, flow into the Guadalupe River, a TNW. Because of the water features' continuous surface connection to a TNW, the USACE Galveston District will likely assert jurisdiction over these features.

The professional opinion offered in this report is based on best professional judgement. It should be noted that the USACE makes the final determination on the location of waterbody and wetland boundaries and their jurisdictional status. To obtain an official jurisdictional determination from the USACE, this report must be

submitted to the USACE Galveston District Office, along with a jurisdictional determination request form and, if appropriate, a pre-construction notification/permit application.

## 7.0 References

- Cowardin, L. M., V. Carter, F. C. Golet, E. T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. U.S. Department of the Interior, Fish and Wildlife Service, Washington, D.C. Jamestown, ND: Northern Prairie Wildlife Research Center Online. <http://www.npwrc.usgs.gov/resource/wetlands/classwet/index.htm> (Version 04DEC1998).
- Federal Emergency Management Agency (FEMA). 2011. Flood Insurance Rate Maps for DeWitt County. Accessed December 2019.
- Google Inc. (2009). Google Earth (Version 5.1.3533.1731) [Software]. Accessed October 2019.
- Lichvar, R.W., D.L. Banks, W.N. Kirchner, and N.C. Melvin. 2016. *The National Wetland Plant List: 2016 wetland ratings*. Phytoneuron 2016-30: 1-17. Published 28 April 2016. ISSN 2153 733X.
- Lists of Hydric Soils. National List; all states. United States Department of Agriculture. National Resource Conservation Service. Available online at <http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/use/hydric/>. Accessed October 2019.
- Munsell® Soil Color Charts. 2009. GretagMacbeth, New Windsor, New York
- Natural Resources Conservation Service (NRCS). 2006. Land Resource Regions and Major Land Resource Areas of the United States, the Caribbean, and the Pacific Basin. Available online at [www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS?nrcs142p2-050898.pdf](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS?nrcs142p2-050898.pdf). Accessed October 2019.
- NRCS. U.S. Department of Agriculture (USDA), NRCS. 1997. Hydrology tools for wetland determination. Chapter 19, Engineering field handbook. D.E. Woodward, ed. USDA-NRCS, Fort Worth, TX.
- NRCS. USDA, NRCS, National Water and Climate Center. 2019. Agriculture Applied Climate Information System. Available online at [https://www.wcc.nrcs.usda.gov/climate/navigate\\_wets.html](https://www.wcc.nrcs.usda.gov/climate/navigate_wets.html) accessed December 6, 2019.
- Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at <http://websoilsurvey.nrcs.usda.gov/>. Accessed October 2019.
- U.S. Army Corps of Engineers (USACE). Regulatory Guidance Letter: Ordinary High Water Mark Identification. Available online <http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rg105-05.pdf>. Accessed October 2019.
- U.S. Army Corps of Engineers (USACE). 1987. Corps of Engineers Wetland Delineation Manual. Technical Report Y-87-1, U.S. Army Corps of Engineers Waterways Experiment Station, Vicksburg, MS.
- U.S. Army Corps of Engineers (USACE). 2010. Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Great Plains Region (Version 2.0), ed. J.S. Wakeley, R.W. Lichvar, and C.V. Noble. ERDC/EL TR-10-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.
- USDA, NRCS. 2010. Field Indicators of Hydric Soils in the United States, Version 7.0. L.M. Vasilas, G.W. Hurt, and C.V. Noble (eds.). USDA, NRCS, in cooperation with the National Technical Committee for Hydric Soils.
- United States Geological Survey (USGS). *Blackwell Lake, Texas*. 7.5 Minute Series. Reston, Va: U.S. Department of the Interior. 2019.

USGS. *Cuero, Texas*. 7.5 Minute Series. Reston, Va: U.S. Department of the Interior. 2019.

USGS. *Yorktown East, Texas*. 7.5 Minute Series. Reston, Va: U.S. Department of the Interior. 2019.

## **8.0 Attachments**

1. Figures
2. Wetland Determination Data Forms
3. Historical Aerial Photographs
4. Site Photographs

## Attachment 1 - Figures

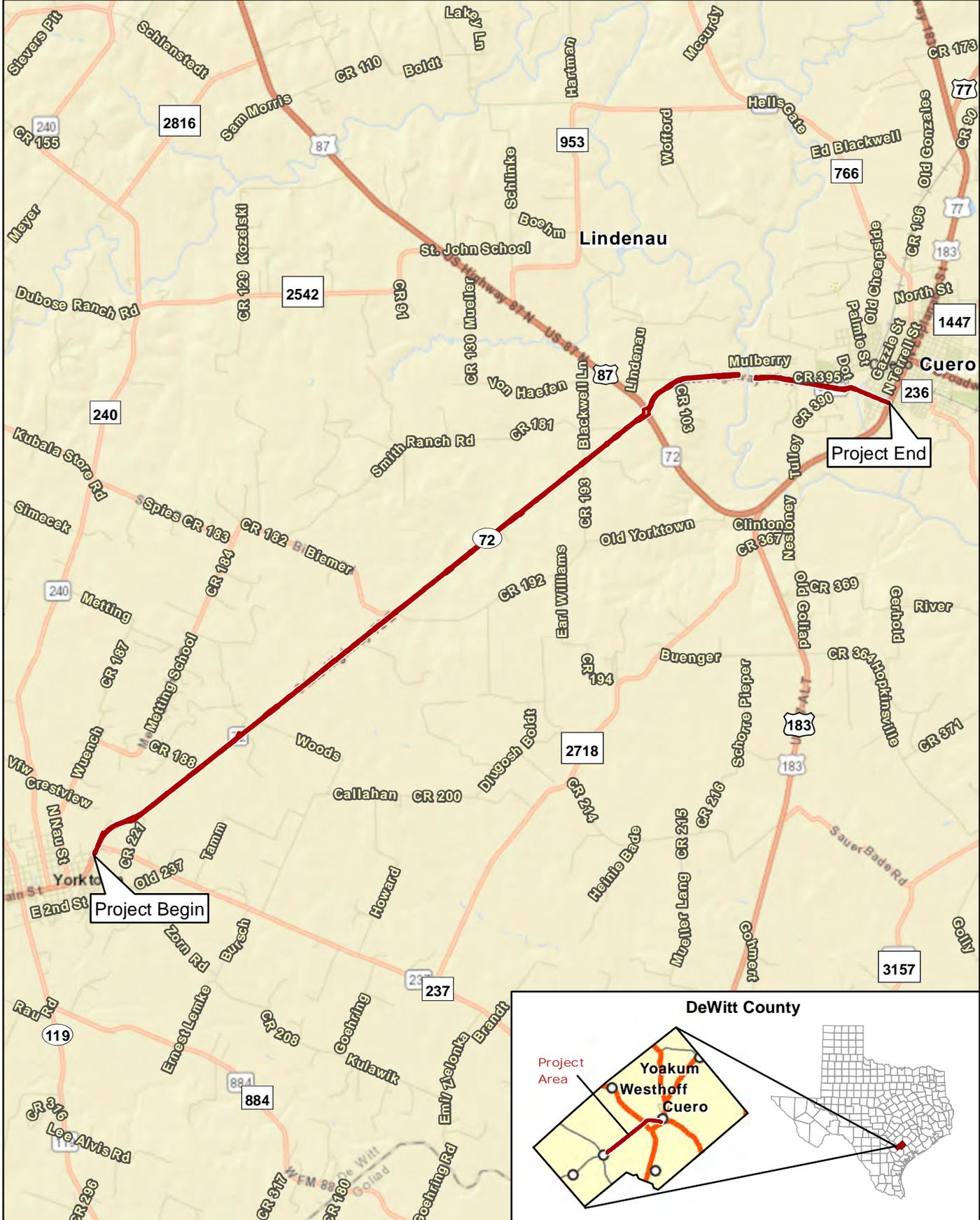


Figure 1  
 Project Location (Road Base)  
 SH 72: FM 237 to US 87

 Project Location
  CSJs: 0270-01-051, 0271-10-014

0	2 Miles	1 in = 2 miles
0	3 Kilometers	Scale: 1:126,500
		Date: 12/6/2019

Basemap Source: ESRI (2019)

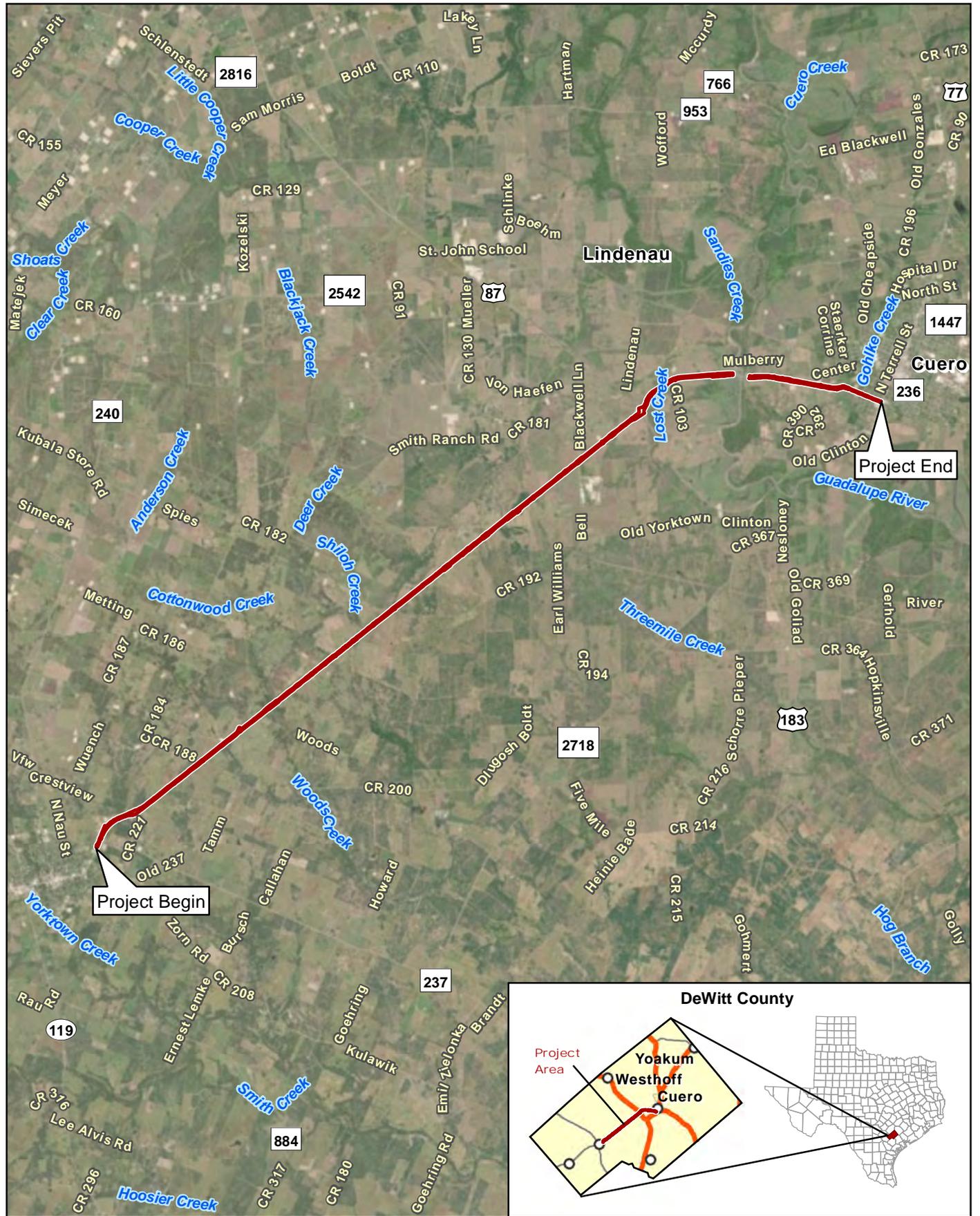


Figure 2  
 Project Location (Aerial Base)  
 SH 72: FM 237 to US 87

Project Location

CSJs: 0270-01-051, 0271-10-014

0 2 Miles 1 in = 2 miles  
 0 3 Kilometers Scale: 1:26,500  
 Date: 12/6/2019

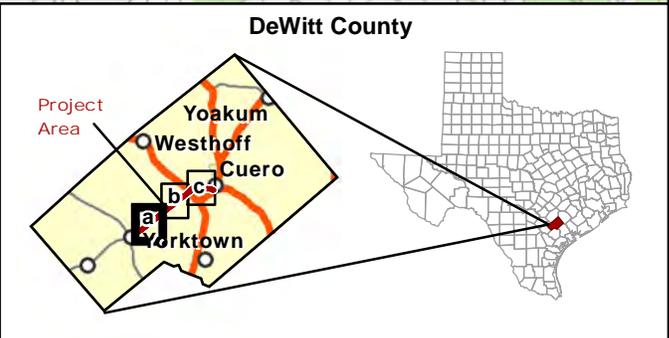
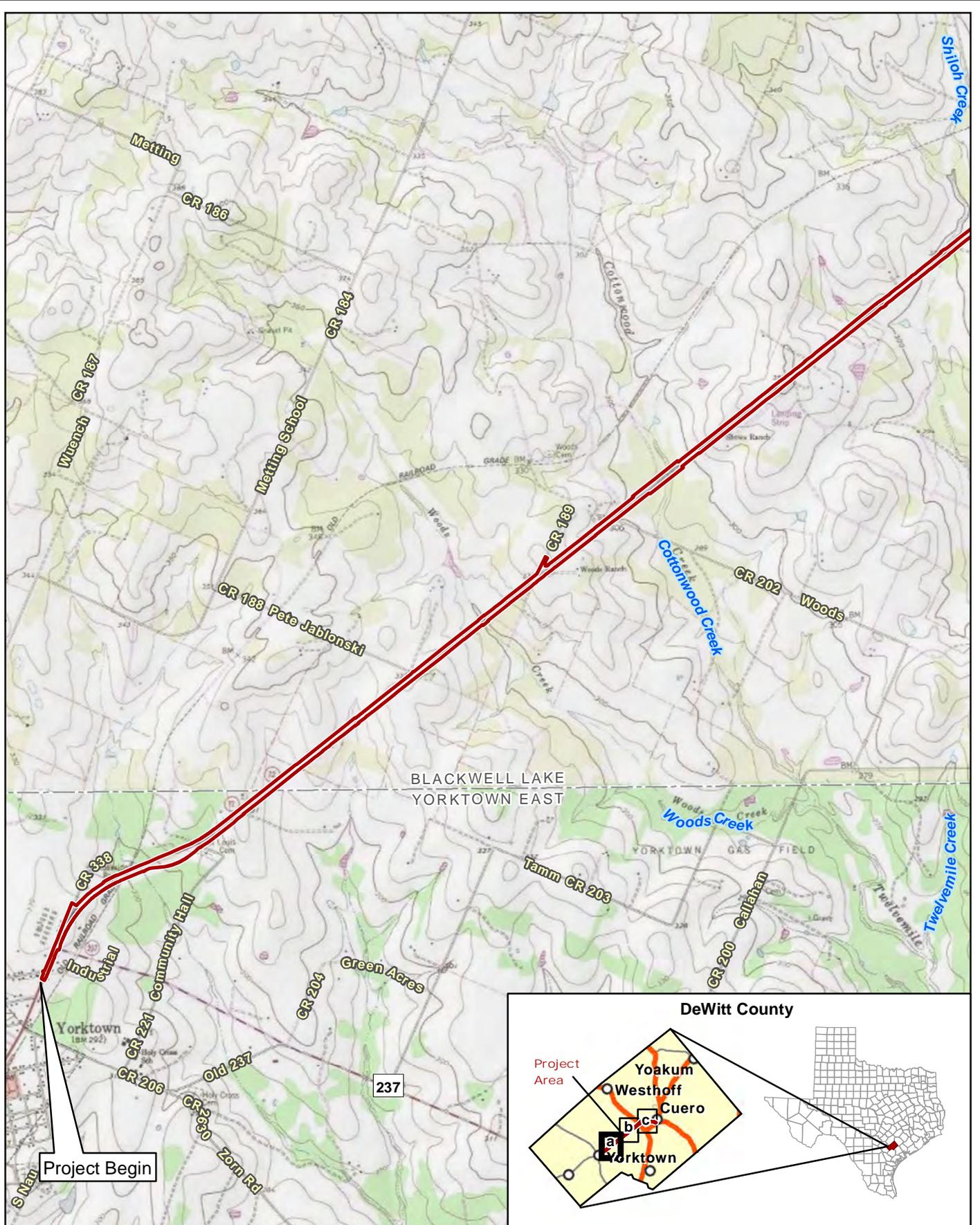


Figure 3a

Project Location (Topographic Base)

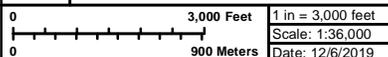
SH 72: FM 237 to US 87

Project Location



CSJs: 0270-01-051, 0271-10-014

Basemap Source: USGS Blackwell Lake, Concrete, Yorktown East and Cuero 7.5' Quadrangles (1987)



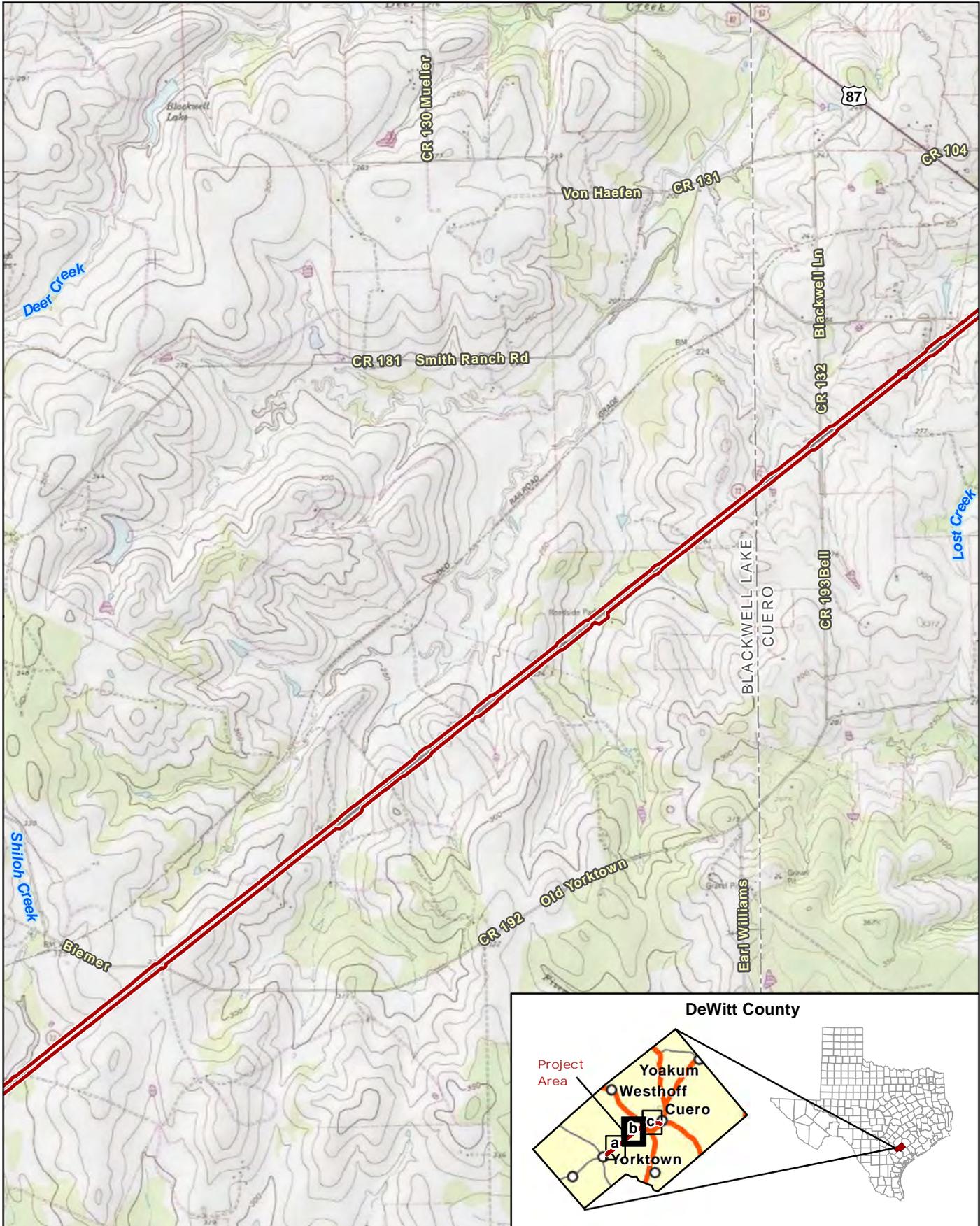


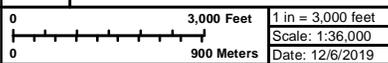
Figure 3b  
 Project Location (Topographic Base)  
 SH 72: FM 237 to US 87

Project Location



CSJs: 0270-01-051, 0271-10-014

Basemap Source: USGS Blackwell Lake, Concrete, Yorktown East and Cuero 7.5' Quadrangles (1987)



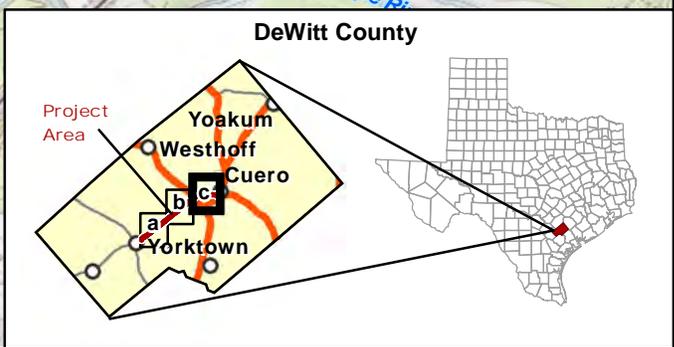
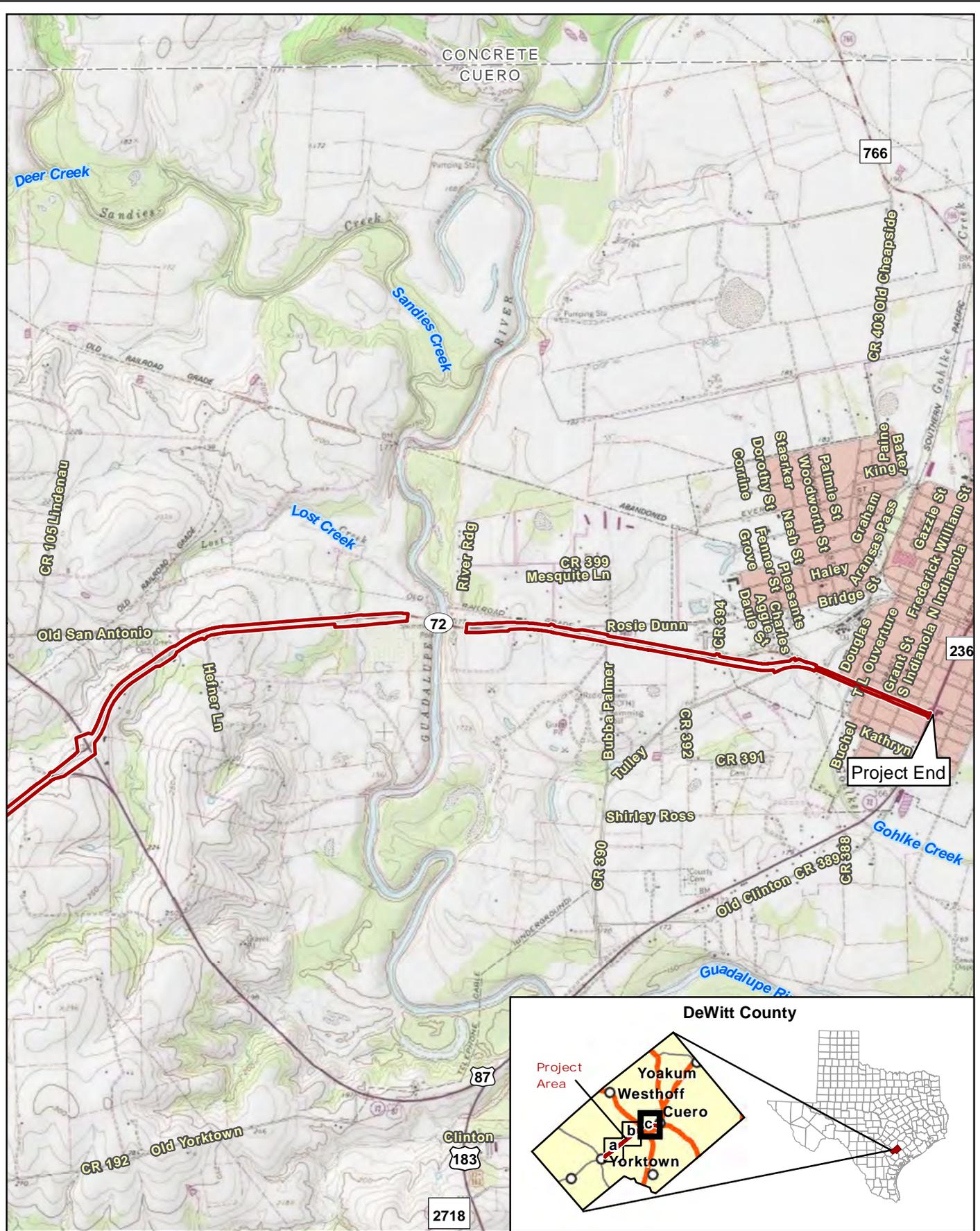


Figure 3c  
 Project Location (Topographic Base)  
**SH 72: FM 237 to US 87**

Project Location CSJs: 0270-01-051, 0271-10-014

Basemap Source: USGS Blackwell Lake, Concrete, Yorktown East and Cuero 7.5' Quadrangles (1987)

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0	900 Meters	Scale: 1:36,000
		Date: 12/6/2019

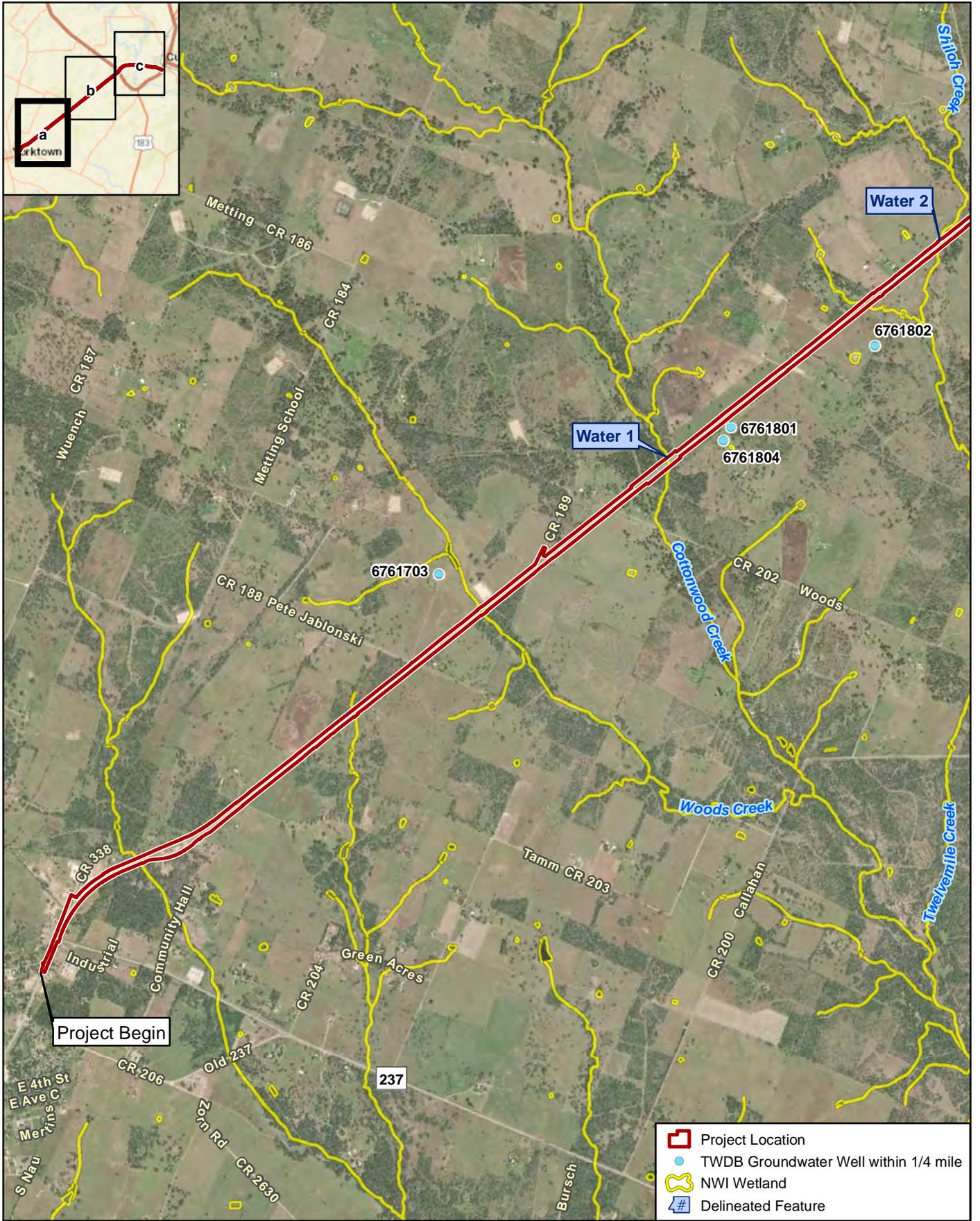


Figure 4a  
National Wetland Inventory (NWI)

SH 72: FM 237 to US 87

Data Sources: CMEC (2019), NWI (2018), TWDB (2019)  
Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		3,000 Feet 1 in = 3,000 feet Scale: 1:36,000 Date: 12/6/2019

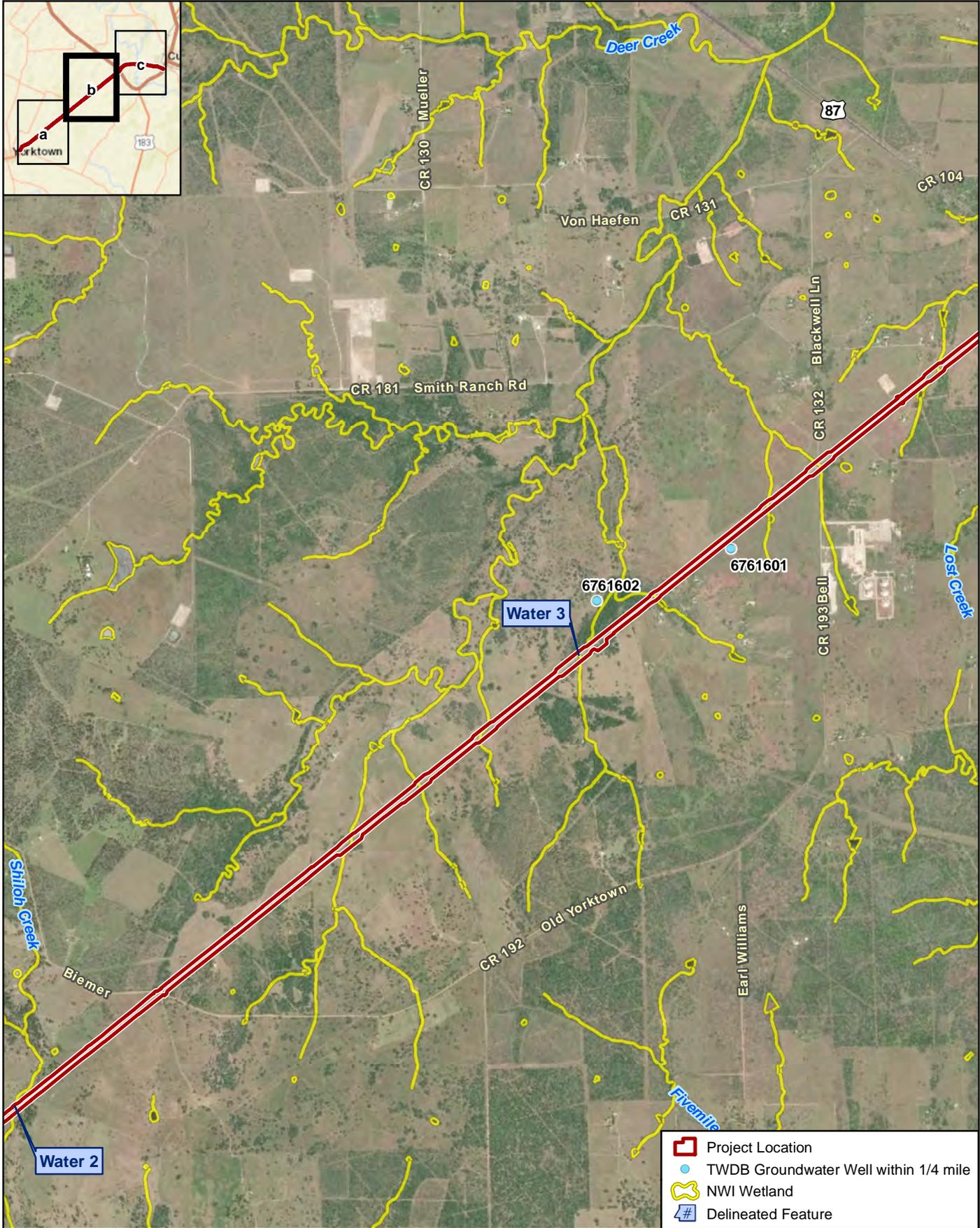


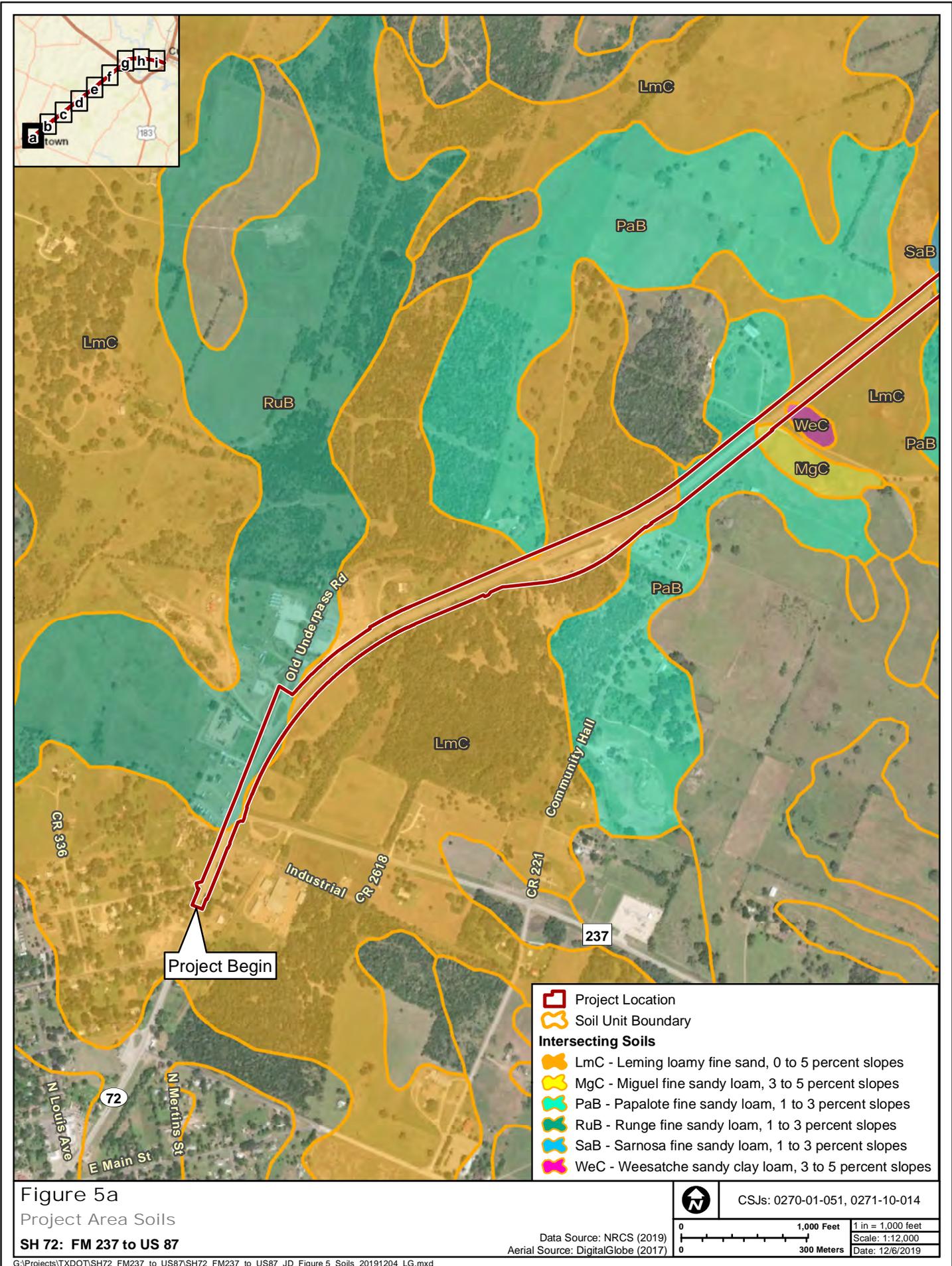
Figure 4b  
National Wetland Inventory (NWI)

SH 72: FM 237 to US 87

Data Sources: CMEC (2019), NWI (2018), TWDB (2019)  
Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 3,000 feet Scale: 1:36,000 Date: 12/6/2019





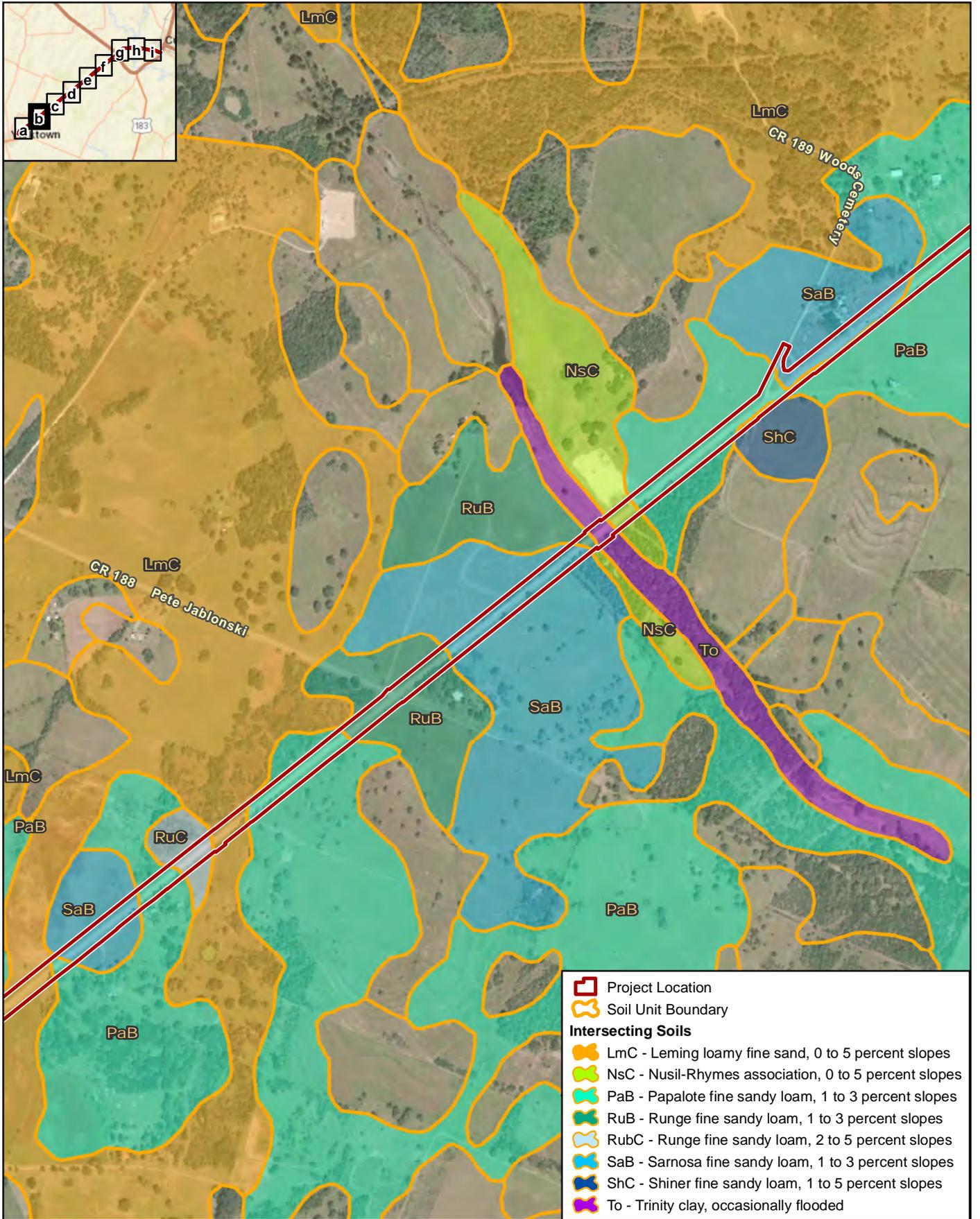


Figure 5b  
Project Area Soils  
SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

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0 300 Meters Scale: 1:12,000 Date: 12/6/2019

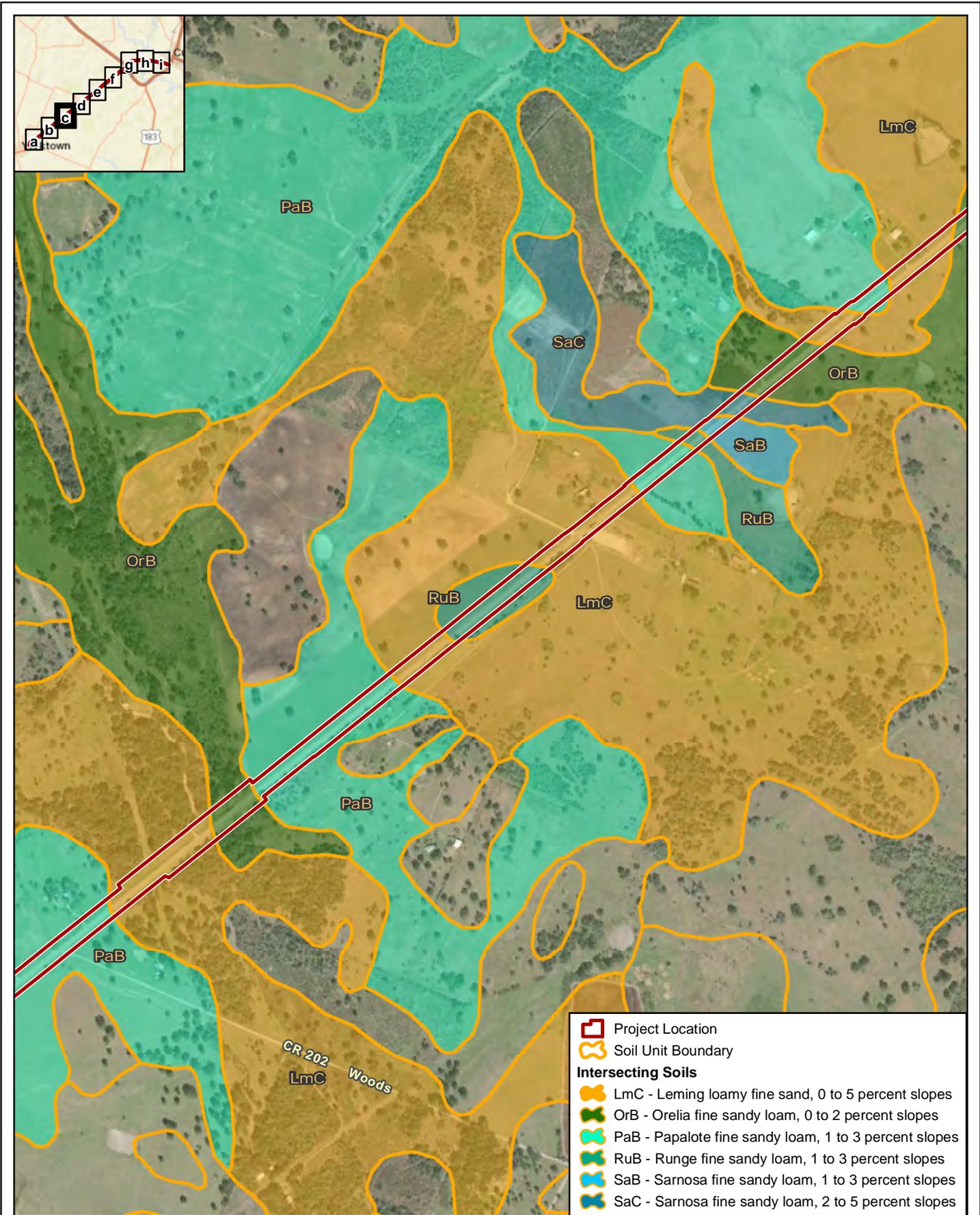
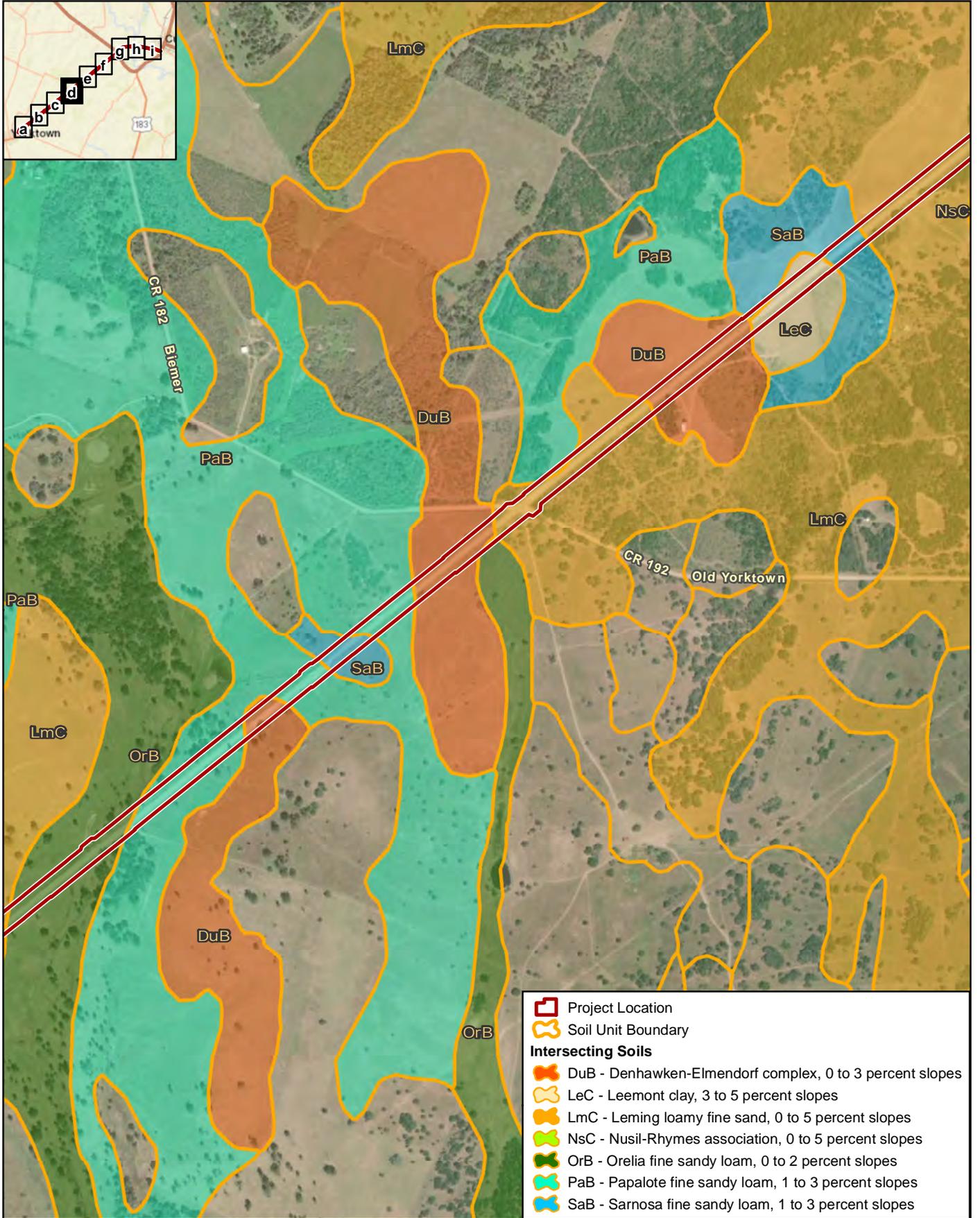


Figure 5c  
 Project Area Soils  
 SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000  
 Date: 12/6/2019

Data Source: NRCS (2019)  
 Aerial Source: DigitalGlobe (2017)



▭ Project Location  
  Soil Unit Boundary  
**Intersecting Soils**  
  DuB - Denhawken-Elmendorf complex, 0 to 3 percent slopes  
  LeC - Leemont clay, 3 to 5 percent slopes  
  LmC - Leming loamy fine sand, 0 to 5 percent slopes  
  NsC - Nusil-Rhymes association, 0 to 5 percent slopes  
  OrB - Orelia fine sandy loam, 0 to 2 percent slopes  
  PaB - Papalote fine sandy loam, 1 to 3 percent slopes  
  SaB - Sarnosa fine sandy loam, 1 to 3 percent slopes

Figure 5d  
 Project Area Soils  
**SH 72: FM 237 to US 87**

N CSJs: 0270-01-051, 0271-10-014  
 0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000  
 Date: 12/6/2019

Data Source: NRCS (2019)  
 Aerial Source: DigitalGlobe (2017)

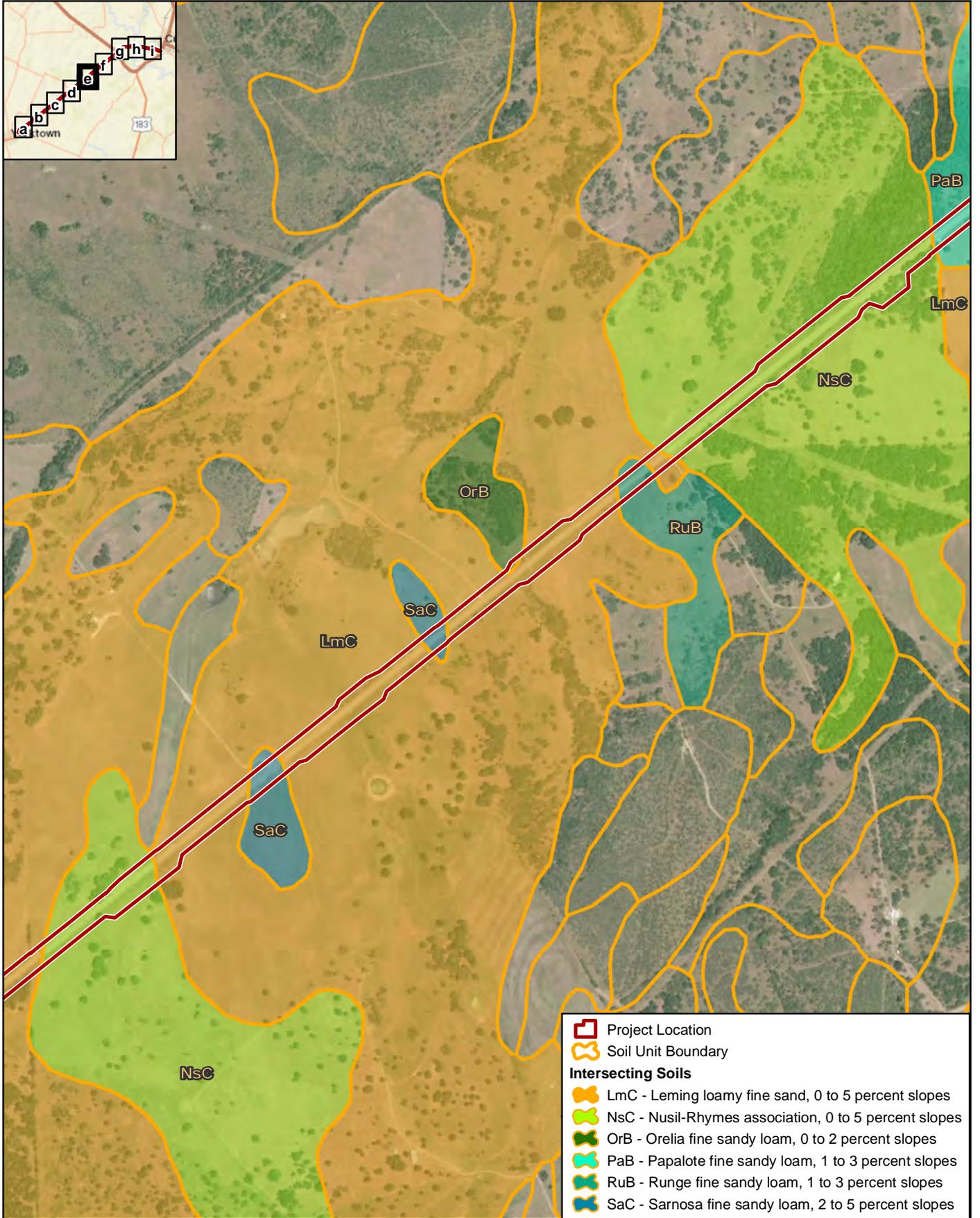
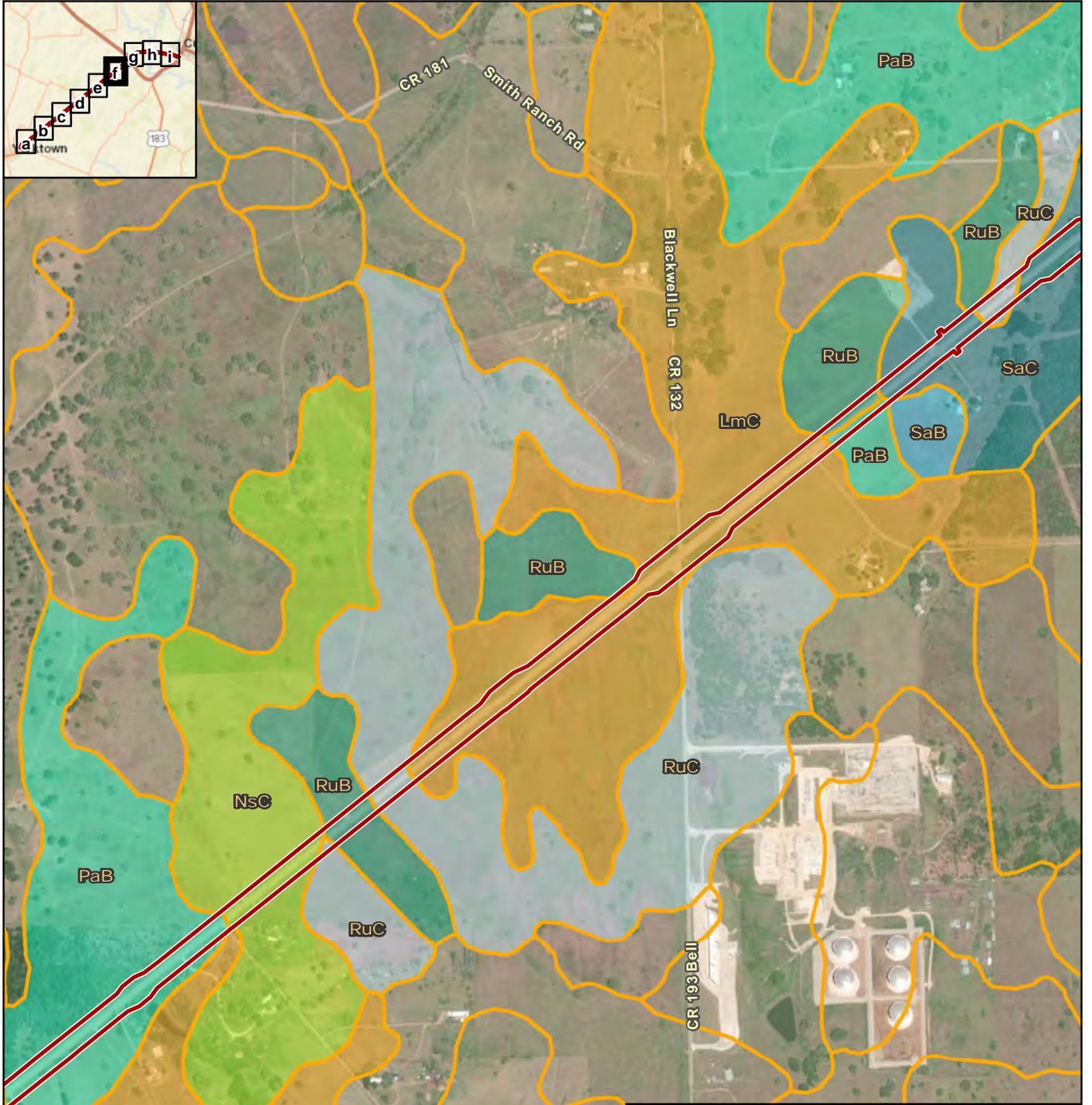


Figure 5e  
 Project Area Soils  
 SH 72: FM 237 to US 87

	CSJs: 0270-01-051, 0271-10-014	
	0 1,000 Feet 0 300 Meters	1 in = 1,000 feet Scale: 1:12,000 Date: 12/6/2019

Data Source: NRCS (2019)  
 Aerial Source: DigitalGlobe (2017)



Project Location  
 Soil Unit Boundary  
**Intersecting Soils**  
 LmC - Leming loamy fine sand, 0 to 5 percent slopes  
 NsC - Nusil-Rhymes association, 0 to 5 percent slopes  
 PaB - Papalote fine sandy loam, 1 to 3 percent slopes  
 RuB - Runge fine sandy loam, 1 to 3 percent slopes  
 RuC - Runge fine sandy loam, 2 to 5 percent slopes  
 SaB - Sarnosa fine sandy loam, 1 to 3 percent slopes  
 SaC - Sarnosa fine sandy loam, 2 to 5 percent slopes

Figure 5f  
 Project Area Soils  
**SH 72: FM 237 to US 87**

CSJs: 0270-01-051, 0271-10-014  
 0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000 Date: 12/6/2019

Data Source: NRCS (2019)  
 Aerial Source: DigitalGlobe (2017)

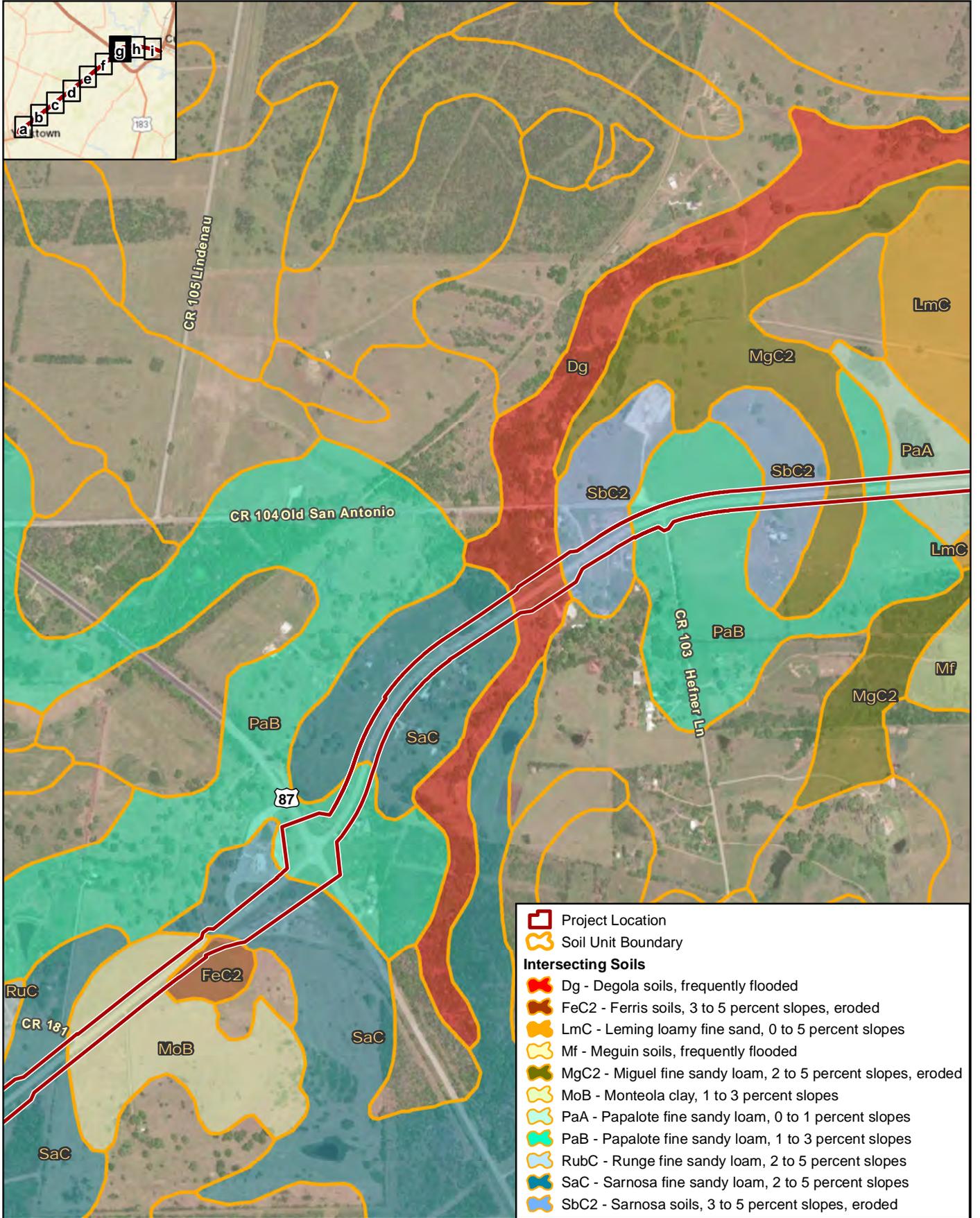


Figure 5g  
 Project Area Soils  
 SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

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 0 300 Meters Scale: 1:12,000  
 Date: 12/6/2019

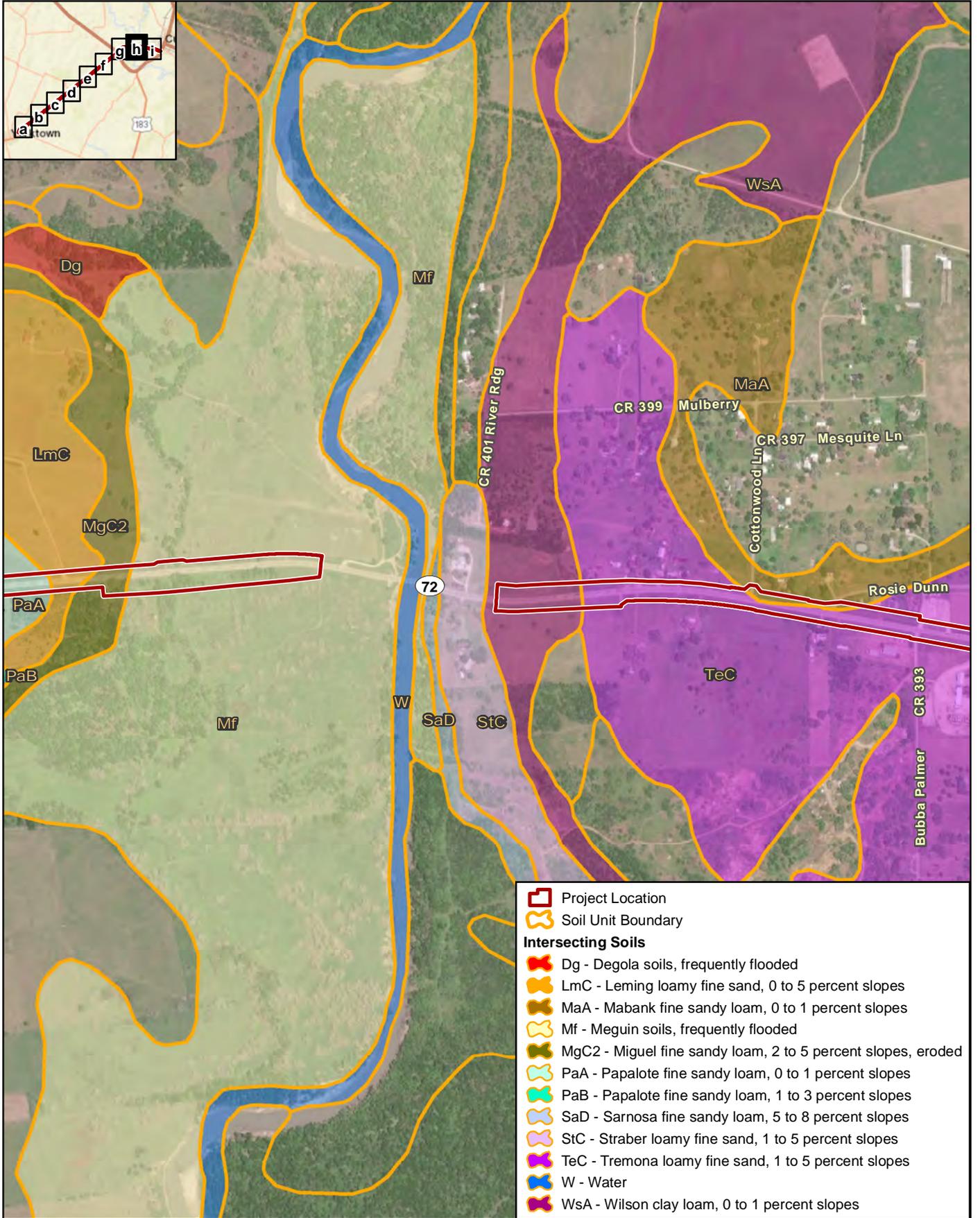


Figure 5h  
 Project Area Soils  
 SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000 Date: 12/6/2019

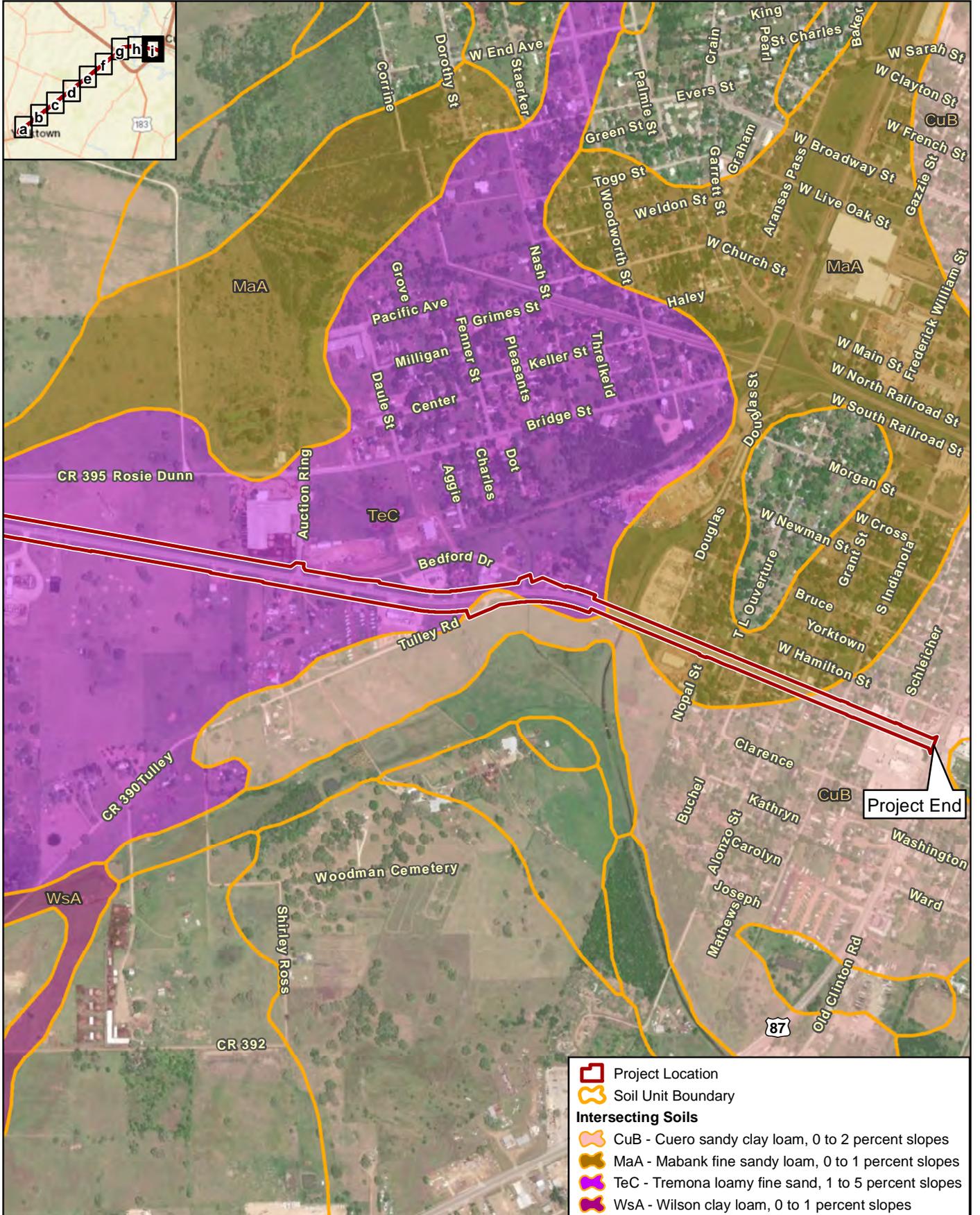


Figure 5i  
 Project Area Soils  
 SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000  
 Date: 12/6/2019

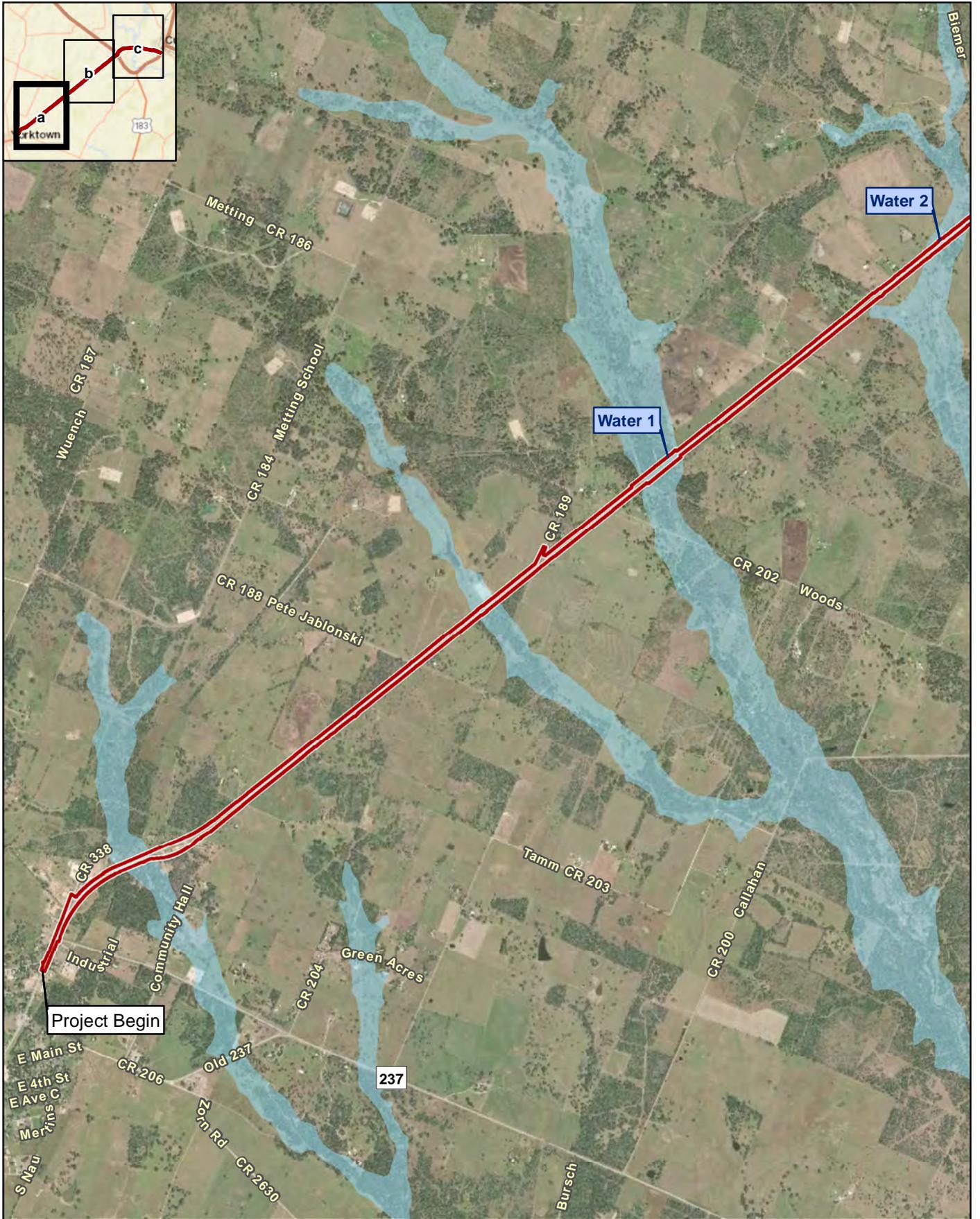


Figure 6a  
 FEMA Floodplain  
 SH 72: FM 237 to US 87

- ▭ Project Location
- # Delineated Feature
- # 100-Year Flood Zone

Data Sources: CMEC (2019), FEMA NFHL (2018)  
 Aerial Source: DigitalGlobe (2017)

CSJs: 0270-01-051, 0271-10-014

0	3,000 Feet	1 in = 3,000 feet
0	900 Meters	Scale: 1:36,000
		Date: 12/6/2019



Figure 6b  
 FEMA Floodplain  
 SH 72: FM 237 to US 87

- ▭ Project Location
- # 100-Year Flood Zone
- # Delineated Feature

Data Sources: CMEC (2019), FEMA NFHL (2018)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
0	3,000 Feet	1 in = 3,000 feet
0	900 Meters	Scale: 1:36,000
		Date: 12/6/2019

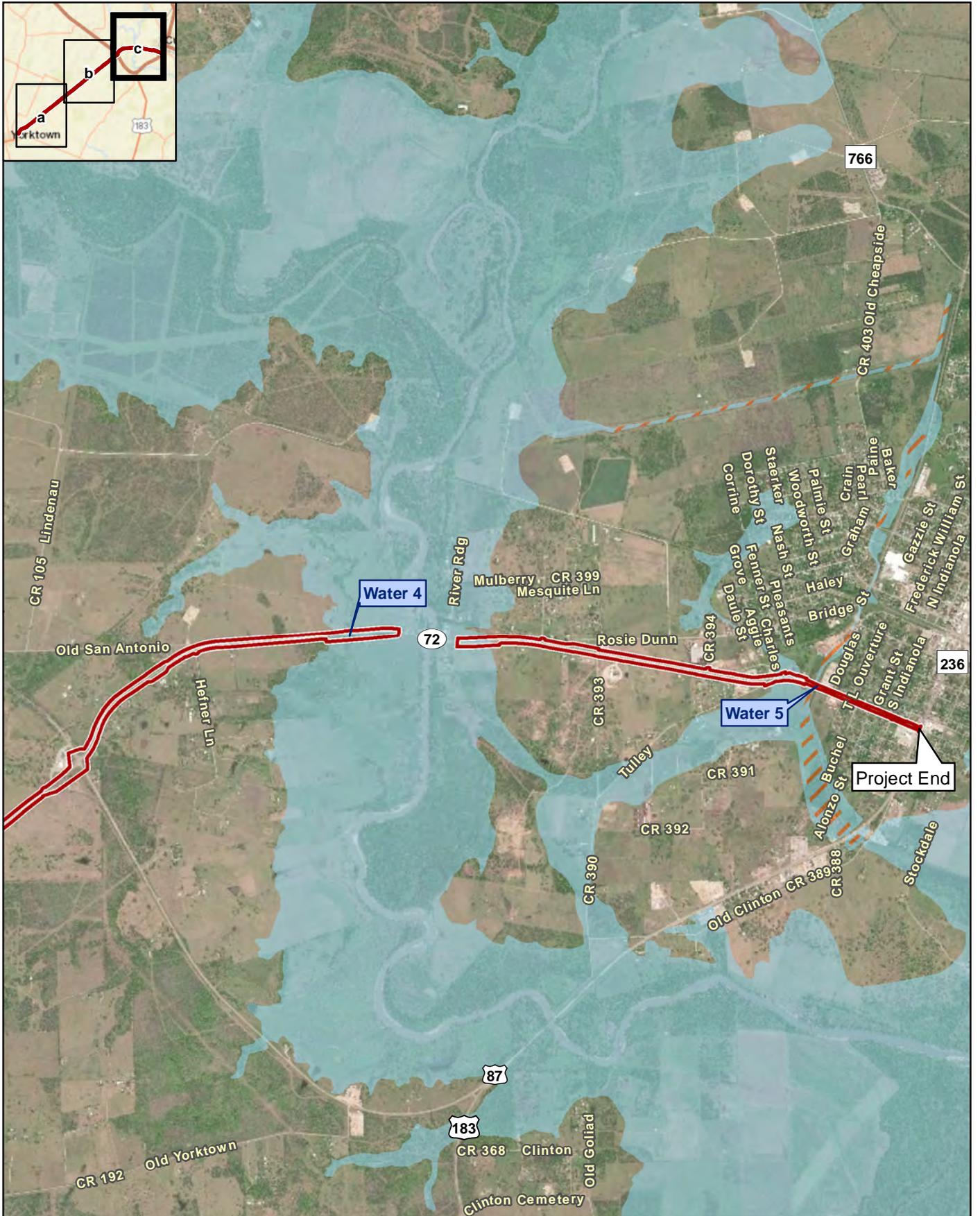


Figure 6c  
 FEMA Floodplain  
 SH 72: FM 237 to US 87

▭ Project Location     ■ 100-Year Flood Zone  
# Delineated Feature     - - - Designated Floodway

Data Sources: CMEC (2019), FEMA NFHL (2018)  
 Aerial Source: DigitalGlobe (2017)

N CSJs: 0270-01-051, 0271-10-014  
 0 3,000 Feet 1 in = 3,000 feet  
 0 900 Meters Scale: 1:36,000  
 Date: 12/6/2019

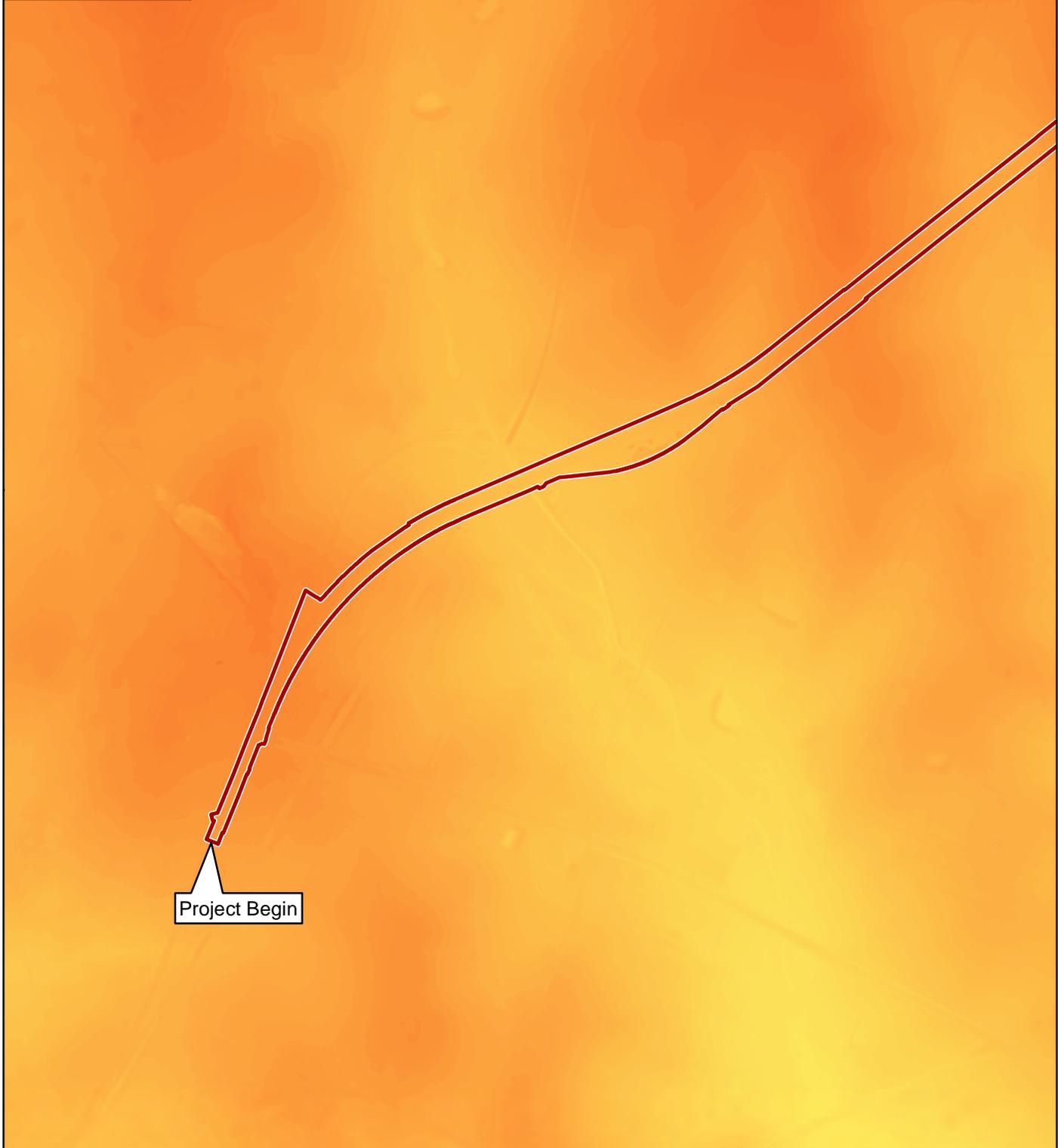


Figure 7a  
Project Area LiDAR  
SH 72: FM 237 to US 87

**LiDAR Value**  
High : 125.51 feet  
Low : 37.2011 feet

 Project Location  
Data Source: CMEC (2019)  
LiDAR Source: FEMA (2016)

	CSJs: 0270-01-051, 0271-10-014	
	0 1,000 Feet 0	1 in = 1,000 feet
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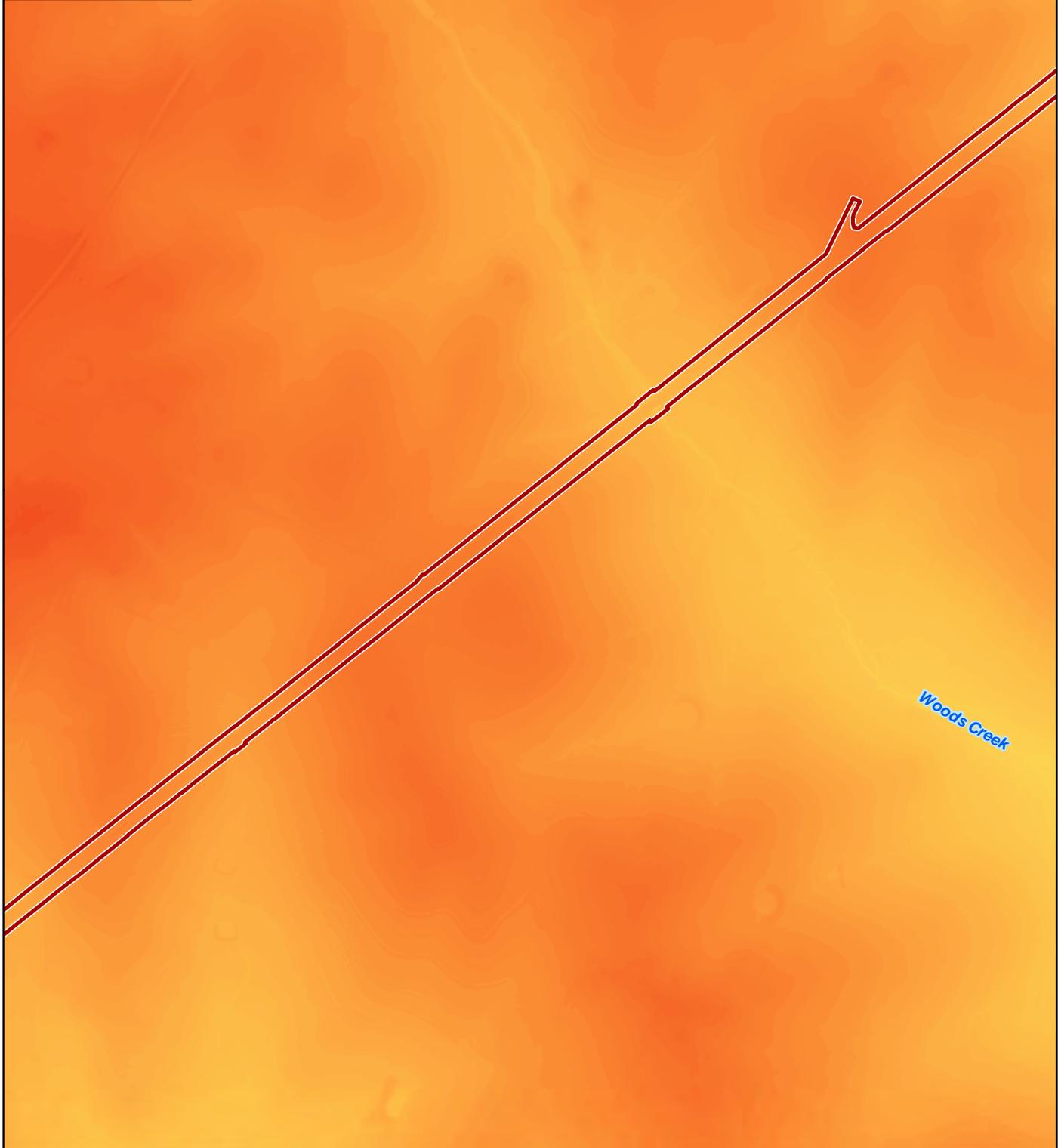


Figure 7b  
Project Area LiDAR  
SH 72: FM 237 to US 87

**LiDAR Value**  
High : 125.51 feet  
Low : 37.2011 feet

 Project Location  
Data Source: CMEC (2019)  
LiDAR Source: FEMA (2016)

	CSJs: 0270-01-051, 0271-10-014	
	0 1,000 Feet 0	1 in = 1,000 feet
	0 300 Meters 0	Scale: 1:12,000
		Date: 12/5/2019

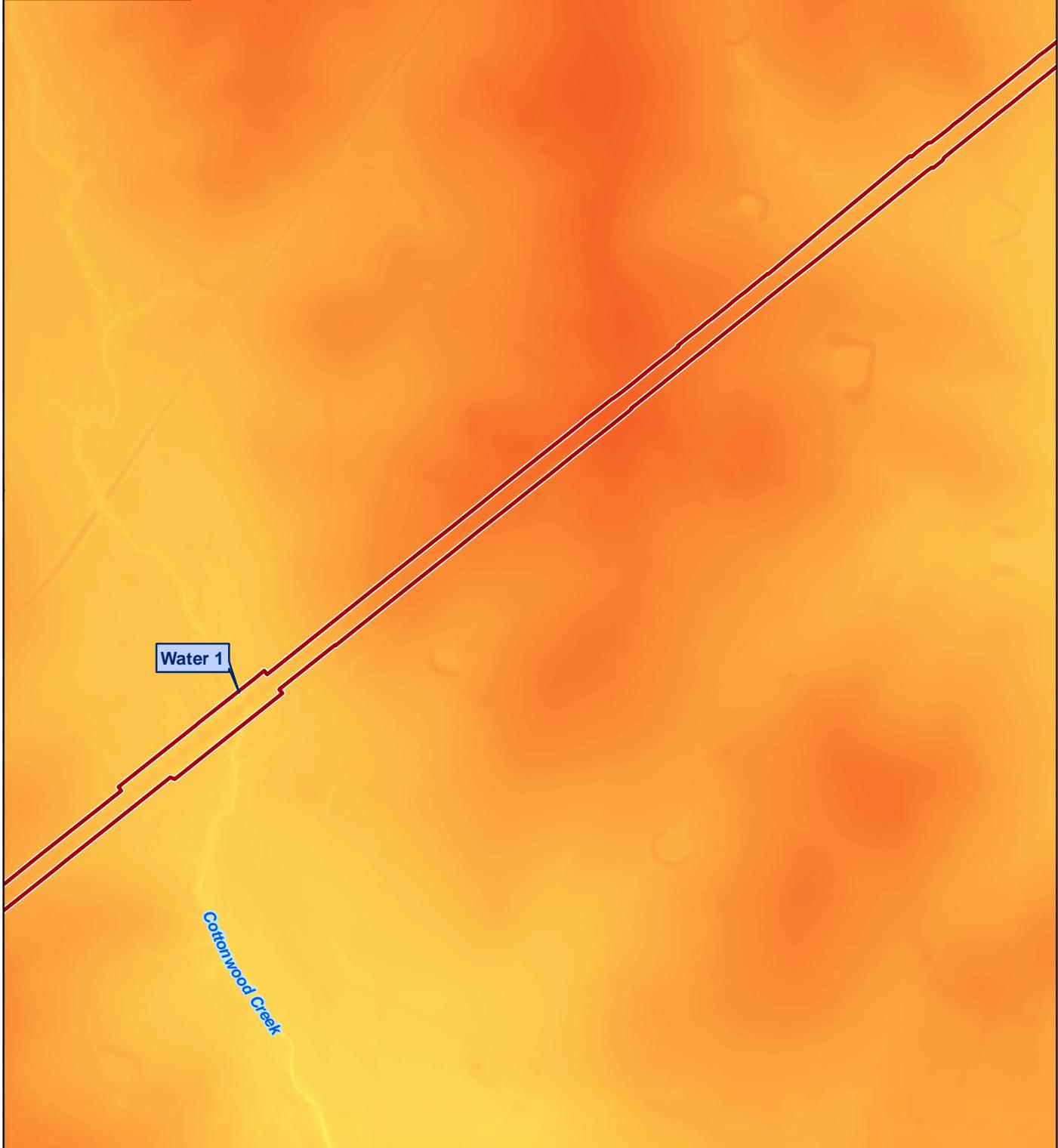


Figure 7c  
Project Area LiDAR  
SH 72: FM 237 to US 87

**LiDAR Value**  
High : 125.51 feet  
Low : 37.2011 feet

Project Location  
 Delineated Feature  
Data Source: CMEC (2019)  
LiDAR Source: FEMA (2016)

	CSJs: 0270-01-051, 0271-10-014	
	0 1,000 Feet	1 in = 1,000 feet
0 300 Meters		Scale: 1:12,000
		Date: 12/5/2019

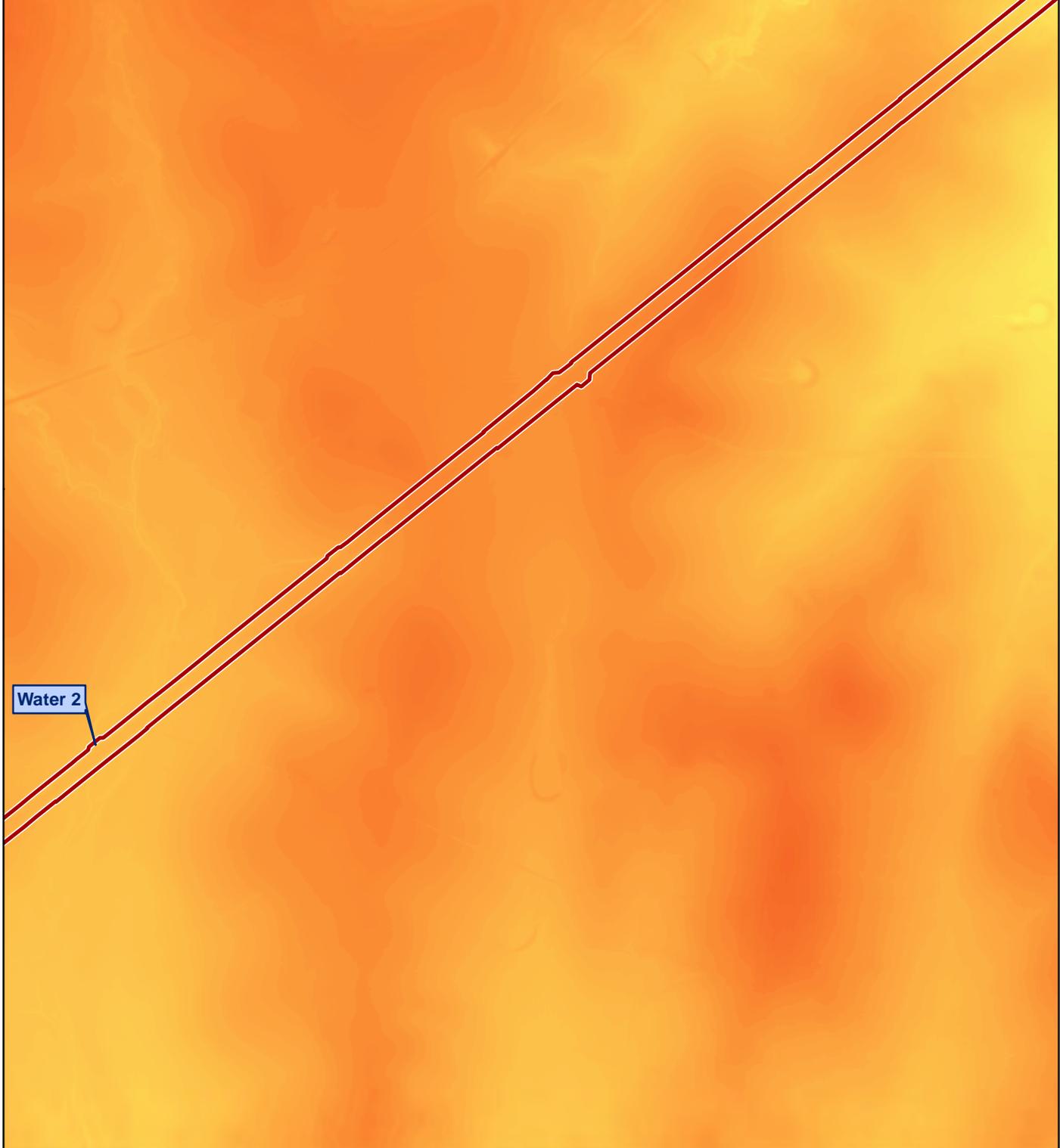
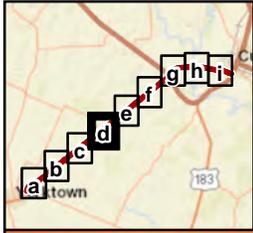


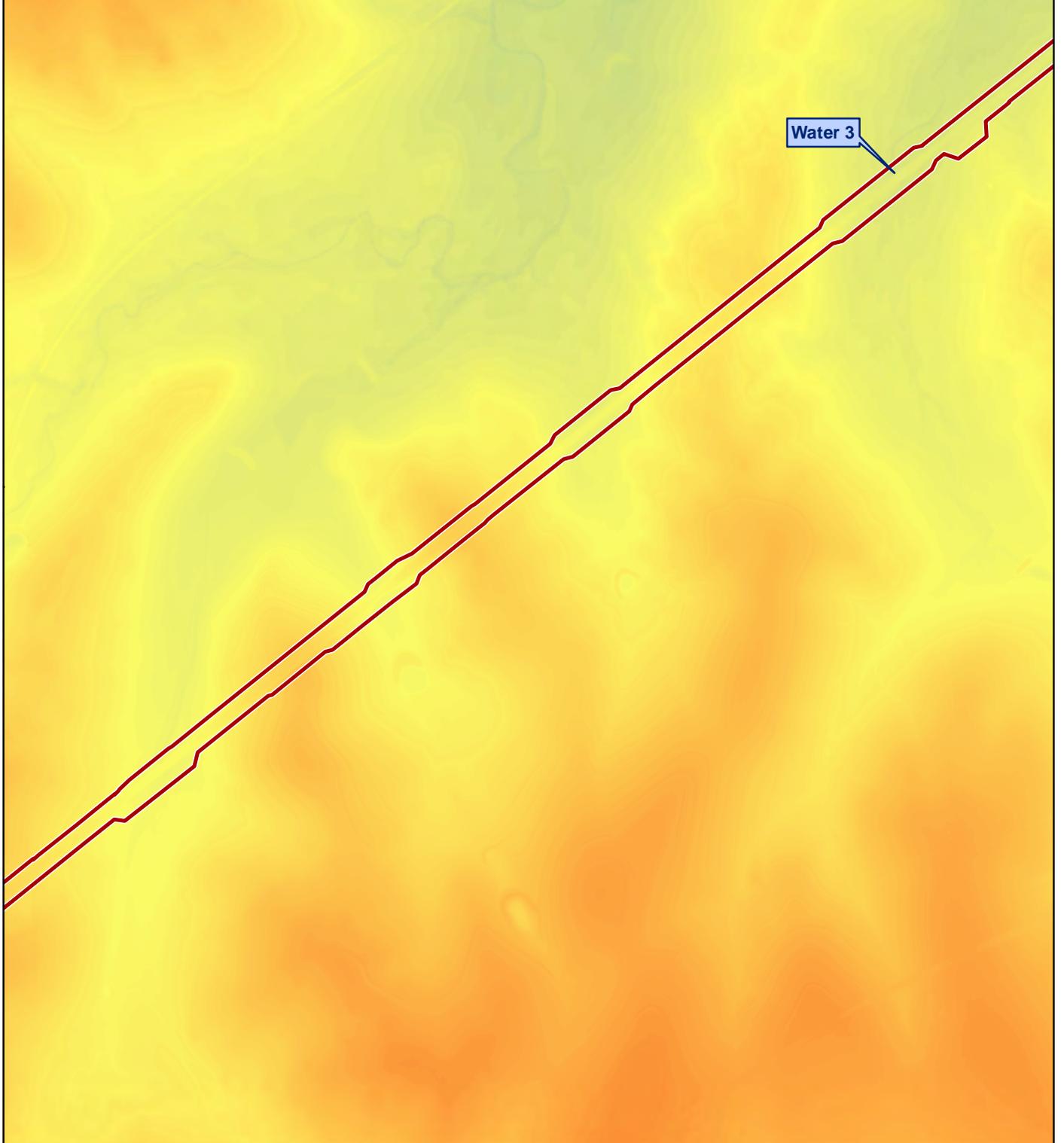
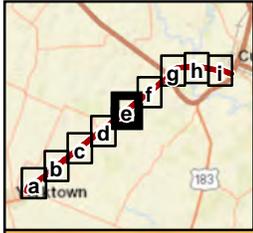
Figure 7d  
 Project Area LiDAR  
 SH 72: FM 237 to US 87

**LiDAR Value**  
 High : 125.51 feet  
 Low : 37.2011 feet

Project Location  
 Delineated Feature  
 Data Source: CMEC (2019)  
 LiDAR Source: FEMA (2016)

CSJs: 0270-01-051, 0271-10-014

0	1,000 Feet	1 in = 1,000 feet
0	300 Meters	Scale: 1:12,000
		Date: 12/5/2019



<b>Figure 7e</b> Project Area LiDAR <b>SH 72: FM 237 to US 87</b>	<b>LiDAR Value</b> High : 125.51 feet Low : 37.2011 feet	Project Location	CSJs: 0270-01-051, 0271-10-014
		Delineated Feature	
Data Source: CMEC (2019) LiDAR Source: FEMA (2016)		0 1,000 Feet 1 in = 1,000 feet 0 300 Meters Scale: 1:12,000 Date: 12/5/2019	

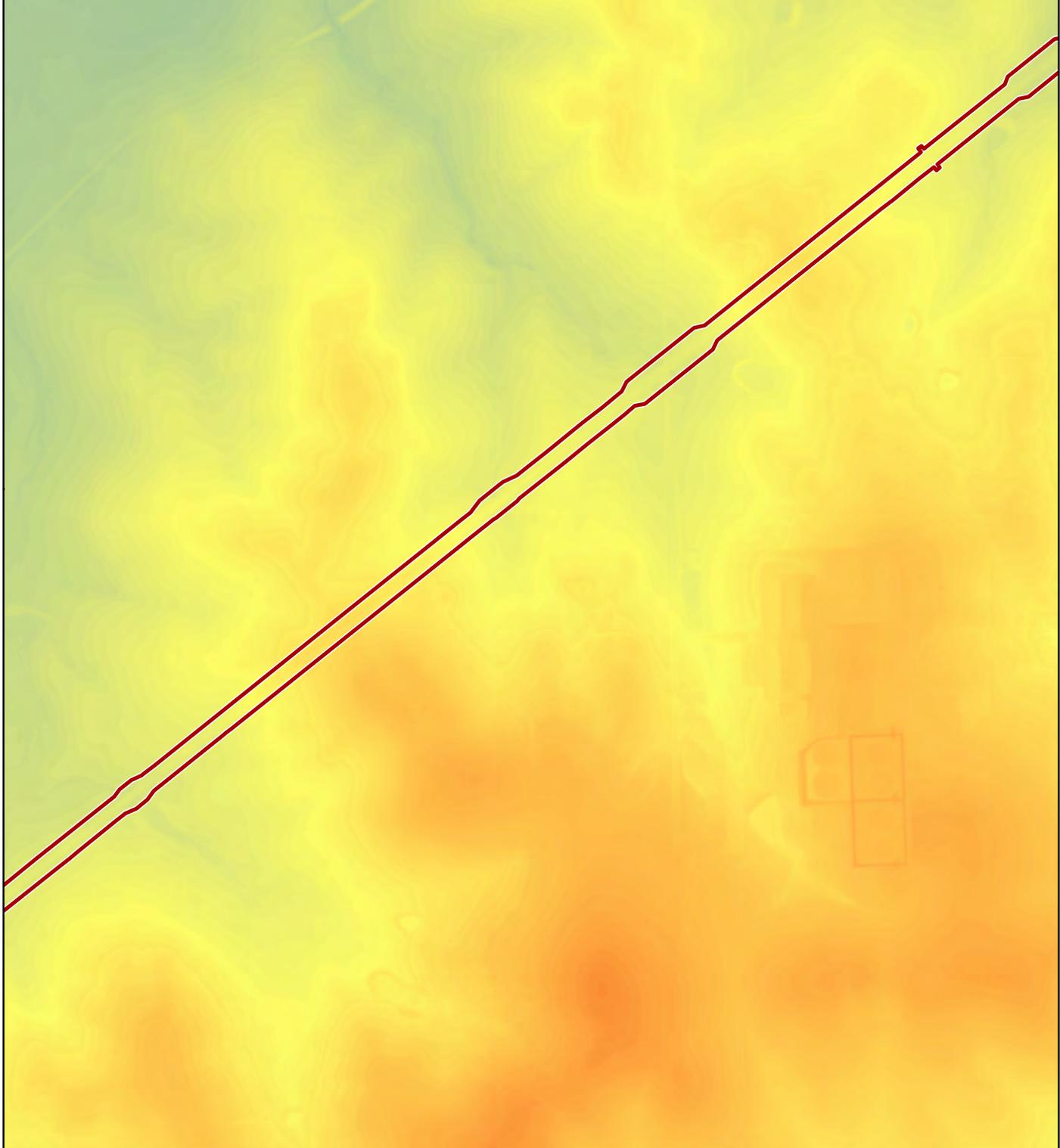


Figure 7f  
 Project Area LiDAR  
**SH 72: FM 237 to US 87**

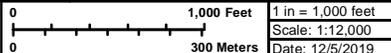
**LiDAR Value**  
 High : 125.51 feet  
 Low : 37.2011 feet

 Project Location

Data Source: CMEC (2019)  
 LiDAR Source: FEMA (2016)



CSJs: 0270-01-051, 0271-10-014



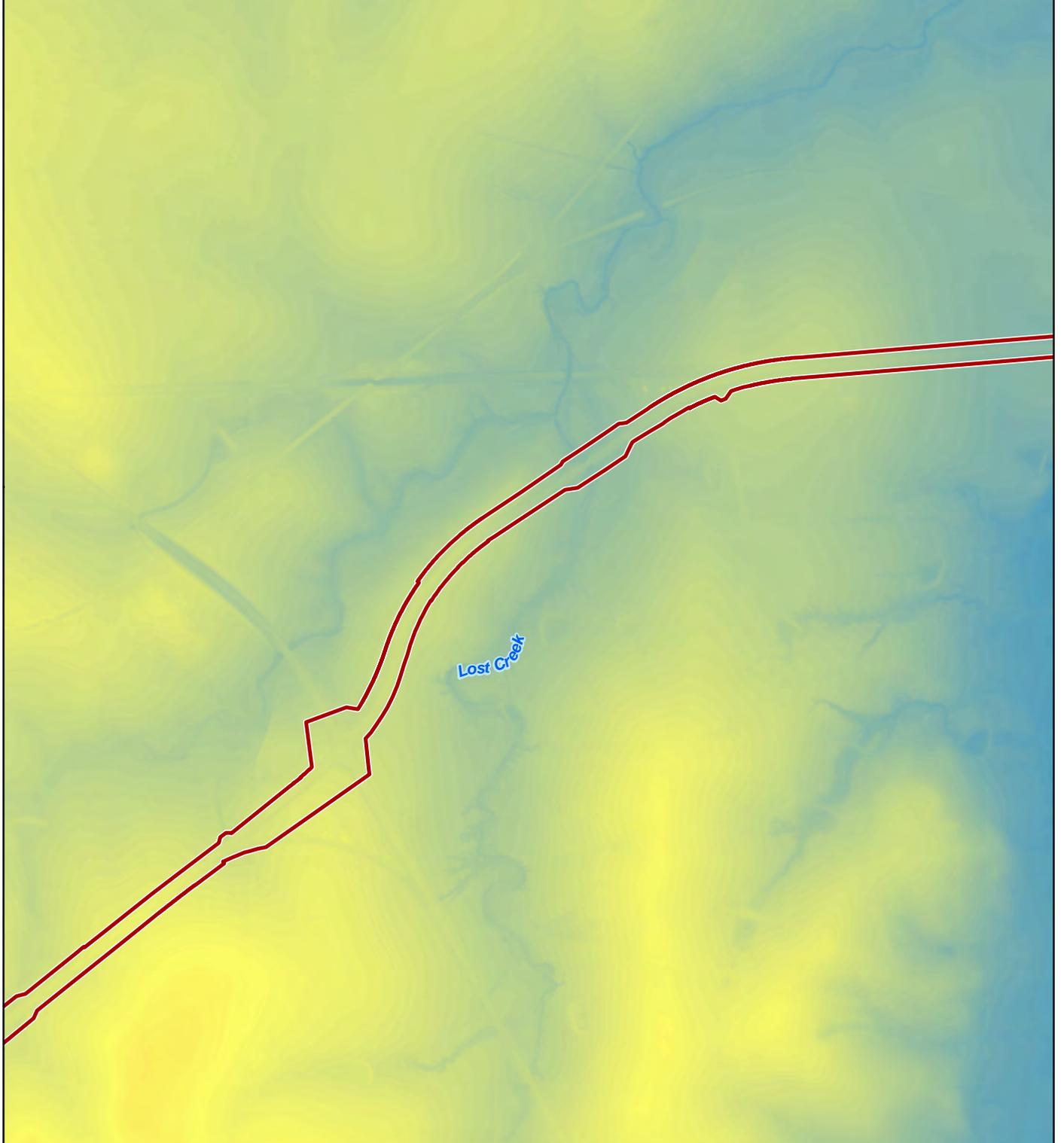


Figure 7g  
 Project Area LiDAR  
 SH 72: FM 237 to US 87

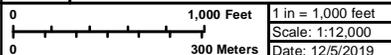
**LiDAR Value**  
 High : 125.51 feet  
 Low : 37.2011 feet

 Project Location

Data Source: CMEC (2019)  
 LiDAR Source: FEMA (2016)



CSJs: 0270-01-051, 0271-10-014



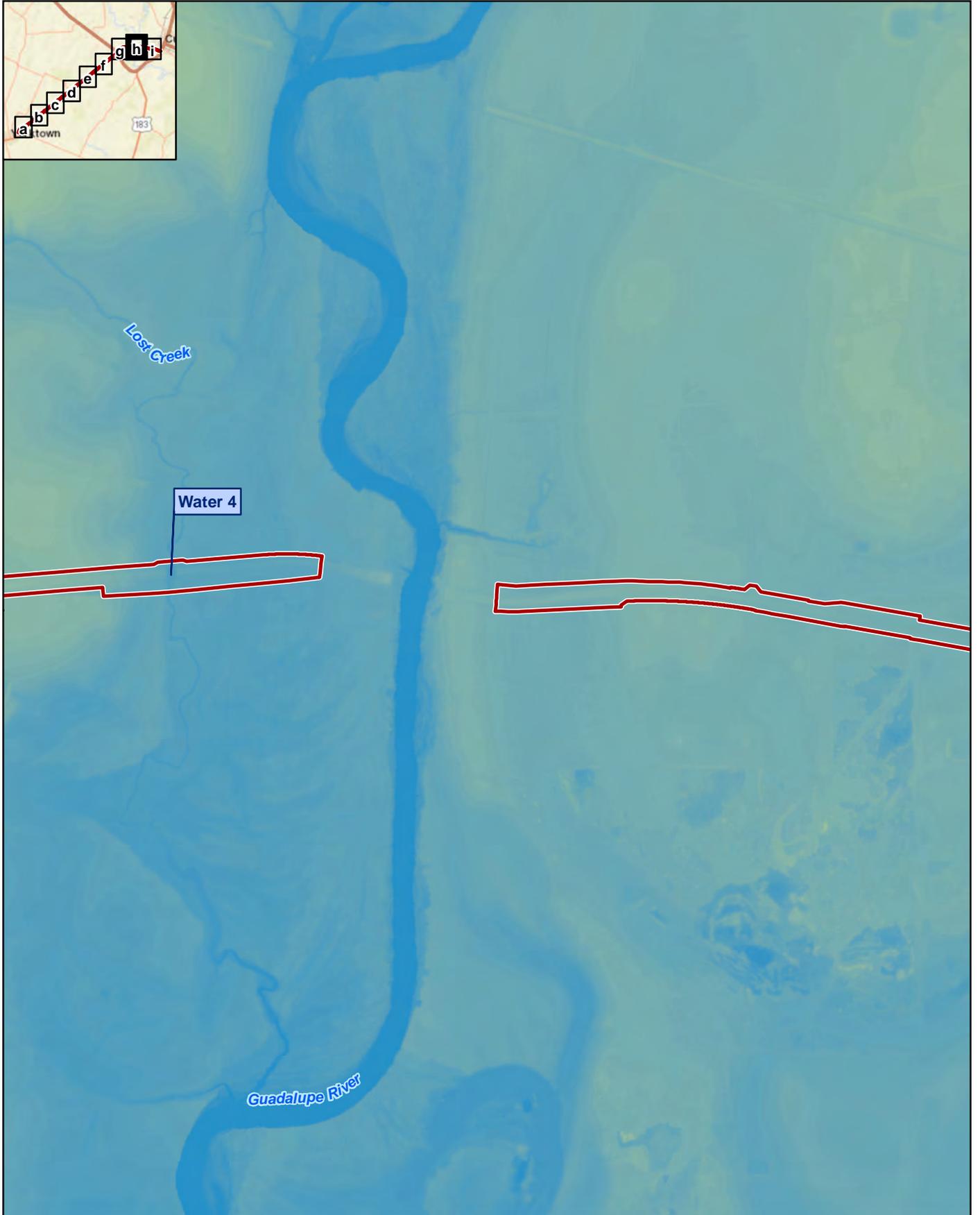


Figure 7h  
 Project Area LiDAR  
 SH 72: FM 237 to US 87

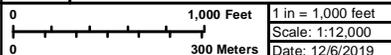
**LiDAR Value**  
 High : 125.51 feet  
 Low : 37.2011 feet

Project Location  
 Delineated Feature

Data Source: CMEC (2019)  
 LiDAR Source: FEMA (2016)



CSJs: 0270-01-051, 0271-10-014



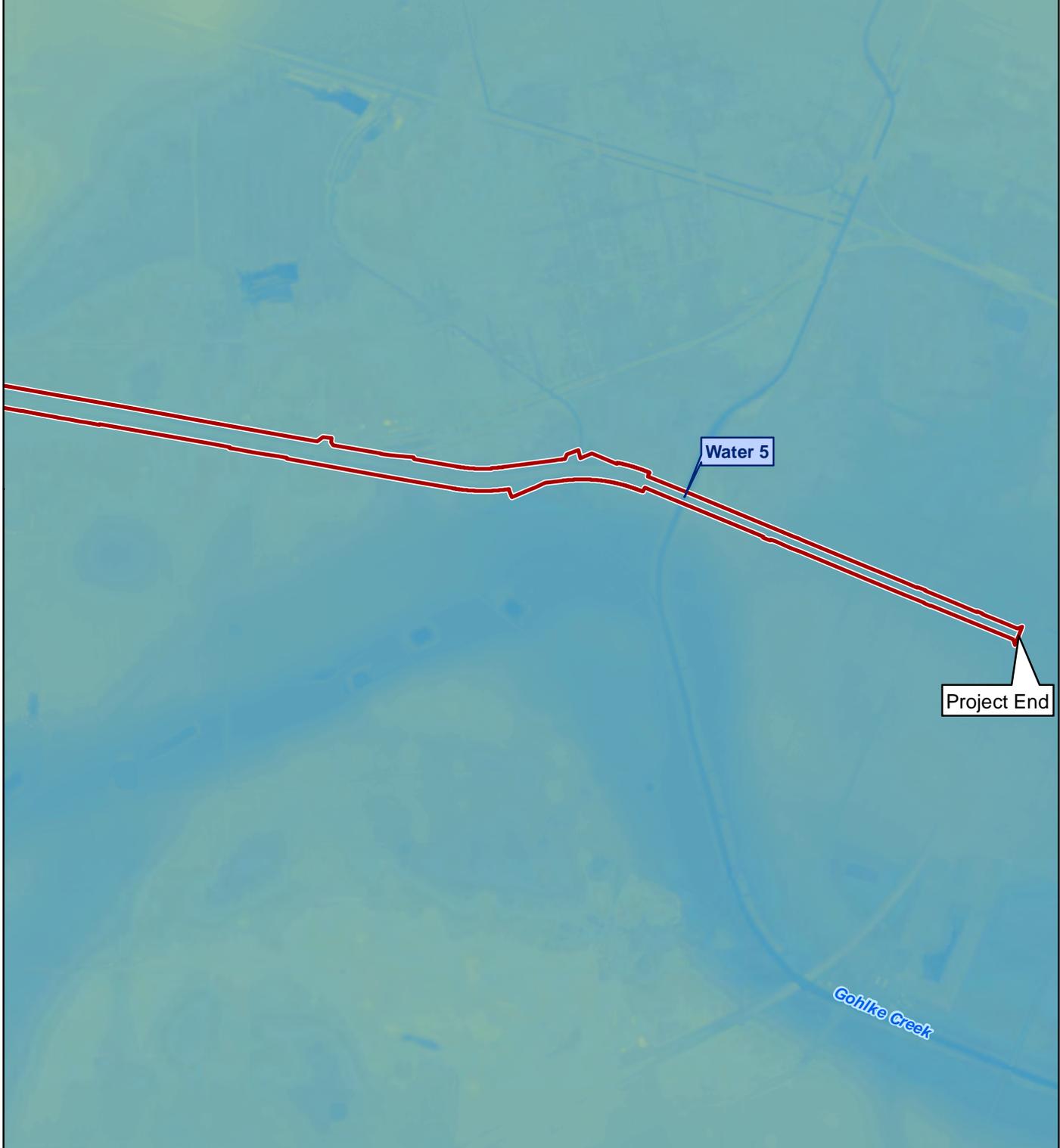


Figure 7i  
 Project Area LiDAR  
 SH 72: FM 237 to US 87

**LiDAR Value**  
 High : 125.51 feet  
 Low : 37.2011 feet

Project Location  
 Delineated Feature

Data Source: CMEC (2019)  
 LiDAR Source: FEMA (2016)



CSJs: 0270-01-051, 0271-10-014

0 1,000 Feet 1 in = 1,000 feet  
 0 300 Meters Scale: 1:12,000 Date: 12/5/2019



Figure 8a  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



Figure 8b  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

 Existing Right-of-Way

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters		Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



Figure 8c  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet 	1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019
	0 50 Meters	

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



Figure 8d  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



Figure 8e  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	Proposed Right-of-Way
	Existing Right-of-Way
	Wetland Determination Point (Upland)

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters		Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



Figure 8f  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet 0 50 Meters	1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



Figure 8g  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019

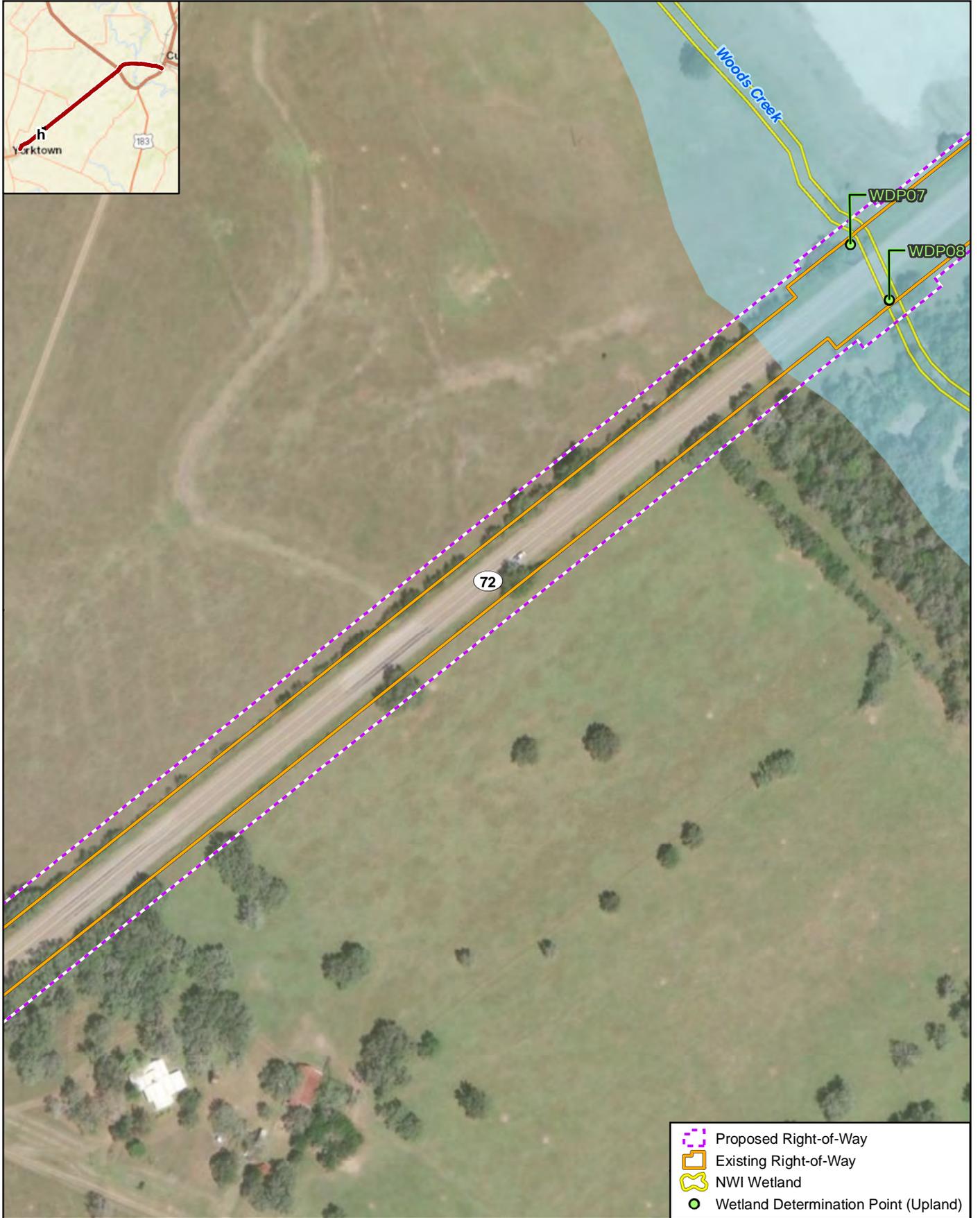


Figure 8h  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

**Figure 8i**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
0	200 Feet	1 in = 200 feet
0	50 Meters	Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



Figure 8j  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019

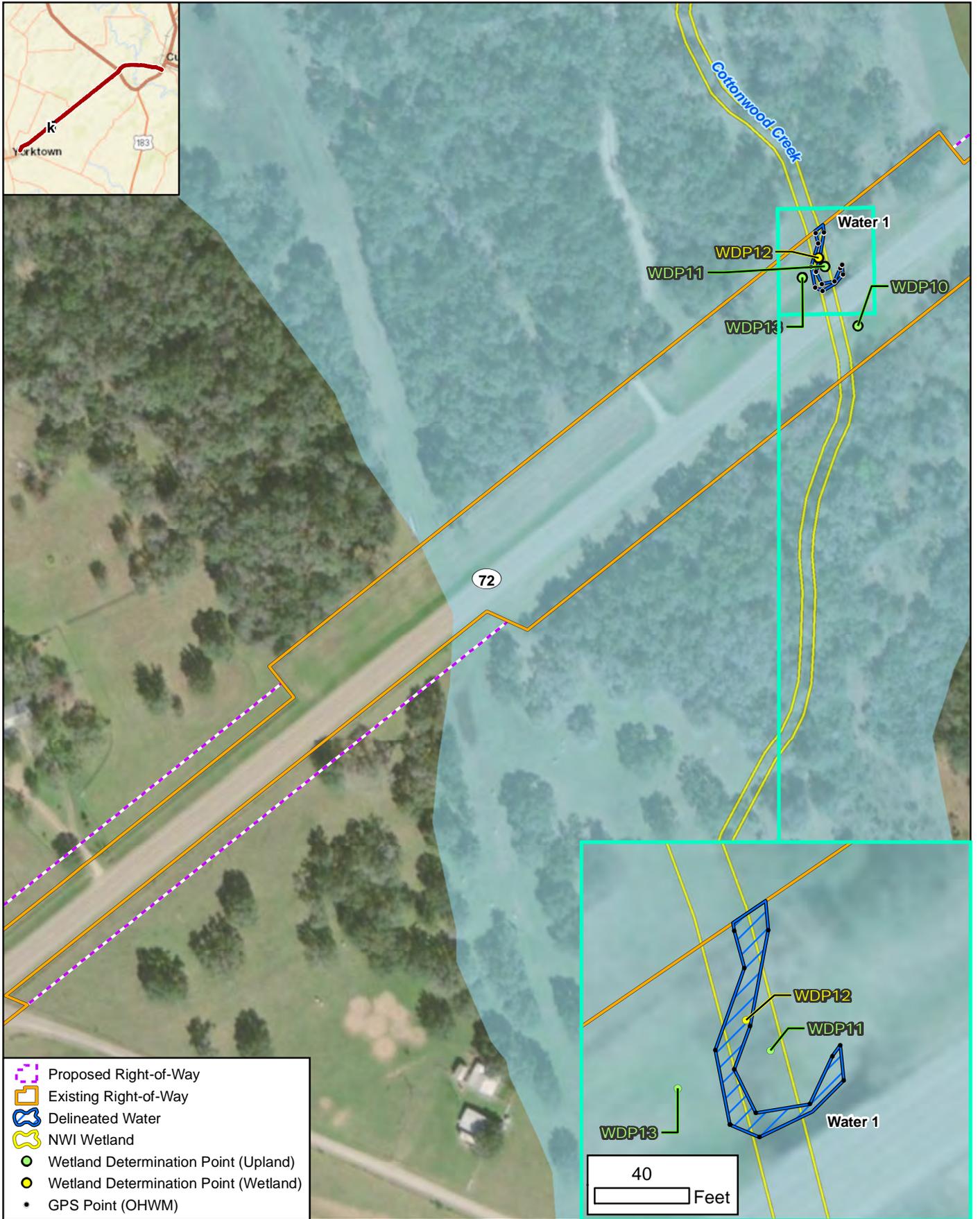


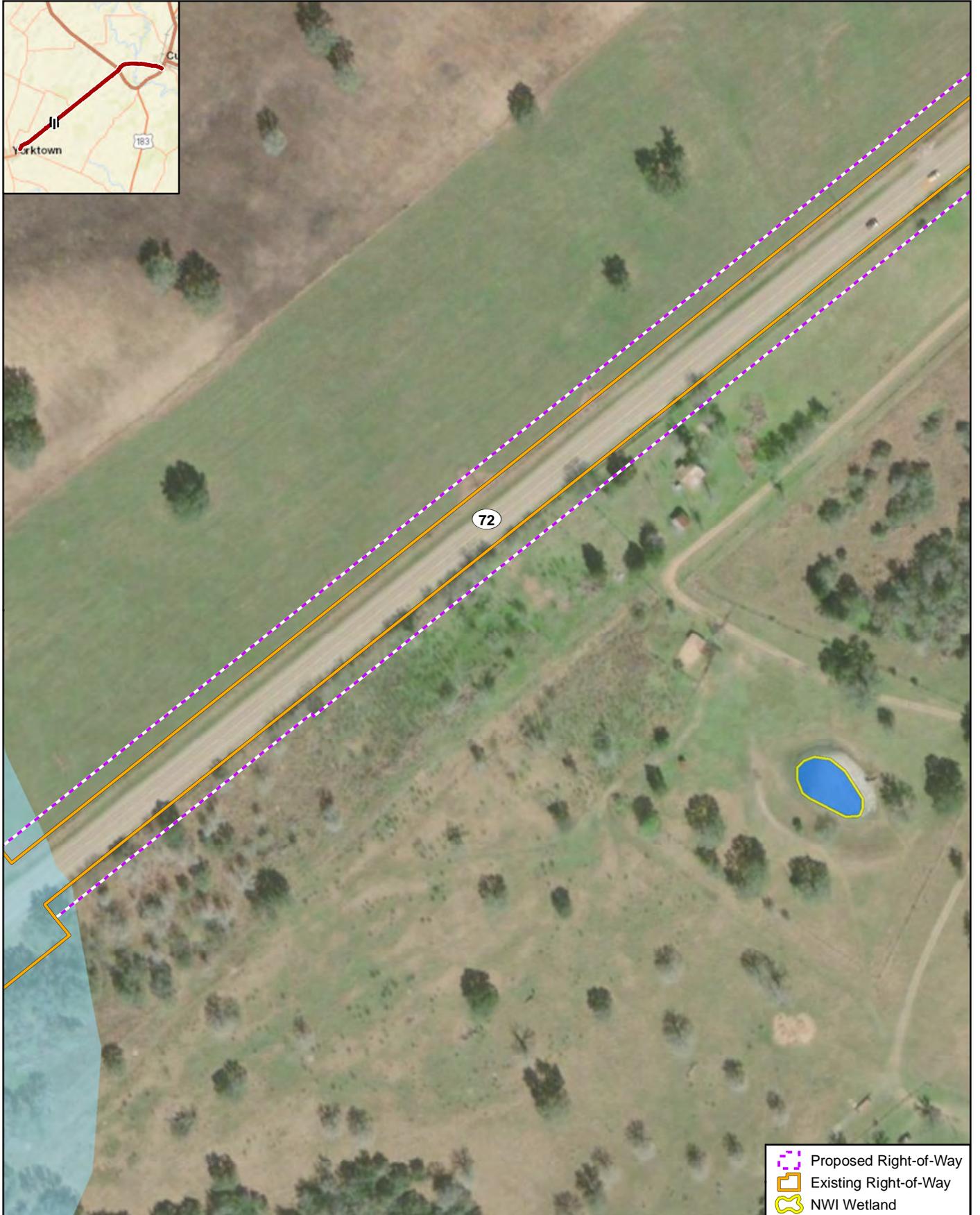
Figure 8k  
Potential Waters of the U.S.

SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

0 200 Feet 1 in = 200 feet  
0 50 Meters Scale: 1:2,400  
Date: 12/6/2019

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8I

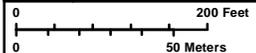
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
Scale: 1:2,400  
Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  Wetland Determination Point (Upland)

Figure 8m

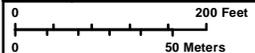
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)

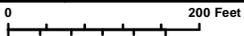


1 in = 200 feet  
Scale: 1:2,400  
Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

**Figure 8n**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

**Figure 8o**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

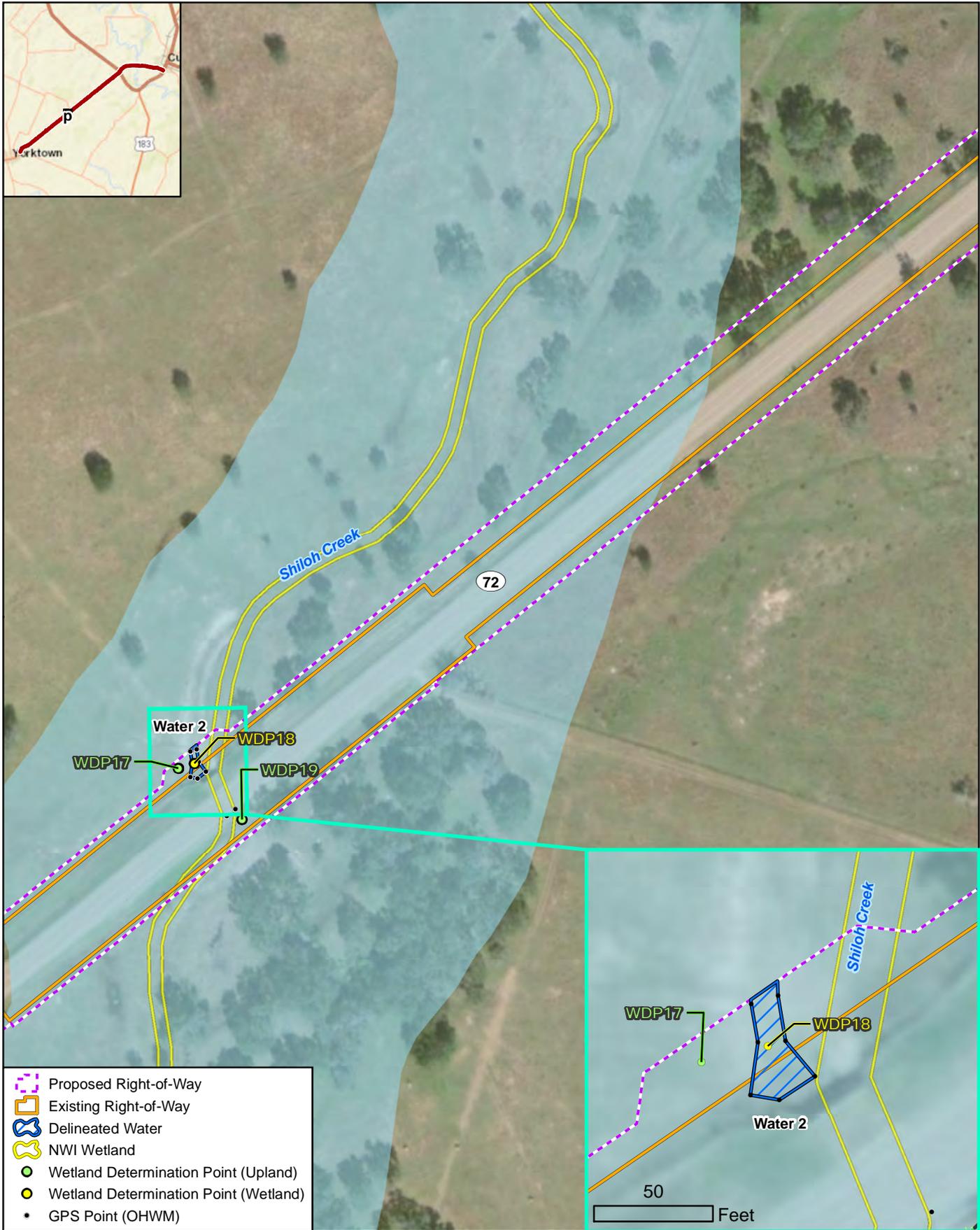


Figure 8p

Potential Waters of the U.S.

SH 72: FM 237 to US 87

G:\Projects\TXDOT\SH72\_FM237\_to\_US87\SH72\_FM237\_to\_US87\_JD\_Figure 8p\_water\_Features\_20191205\_LG.mxd

	CSJs: 0270-01-051, 0271-10-014	
	1 in = 200 feet	Scale: 1:2,400
		Date: 12/6/2019

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



	Proposed Right-of-Way
	Existing Right-of-Way

Figure 8q

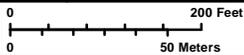
Potential Waters of the U.S.

**SH 72: FM 237 to US 87**



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019



Figure 8r  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



 Proposed Right-of-Way  
 Existing Right-of-Way

**Figure 8s**

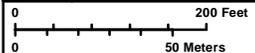
Potential Waters of the U.S.

**SH 72: FM 237 to US 87**



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019



 Proposed Right-of-Way  
 Existing Right-of-Way

Figure 8t

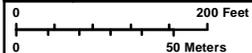
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019

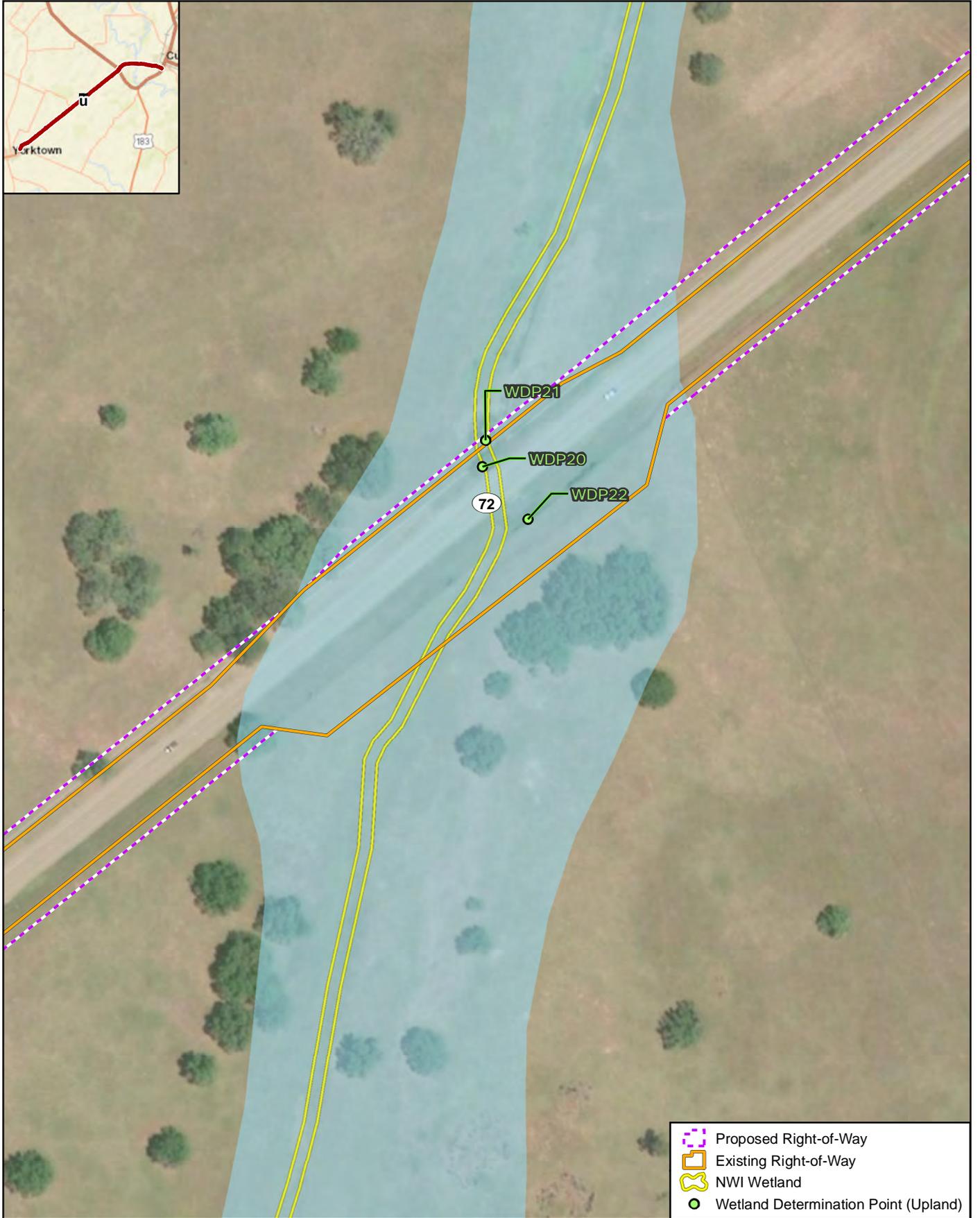


Figure 8u  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet 	1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019
	0 50 Meters	



Figure 8v

Potential Waters of the U.S.

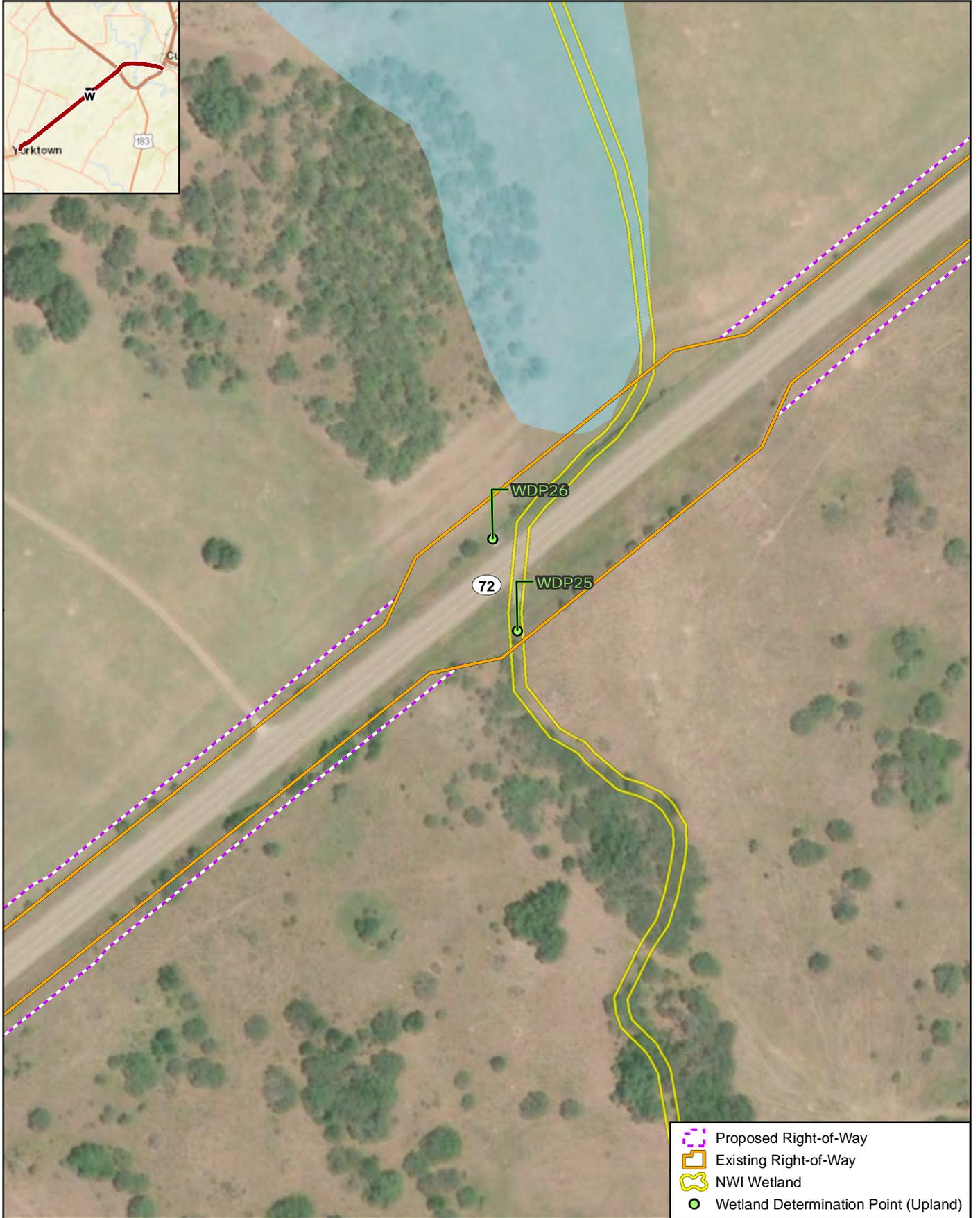
SH 72: FM 237 to US 87

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



CSJs: 0270-01-051, 0271-10-014

0	200 Feet	1 in = 200 feet
0	50 Meters	Scale: 1:2,400
		Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

**Figure 8w**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters	Scale: 1:2,400 Date: 12/5/2019	



 Proposed Right-of-Way  
 Existing Right-of-Way

Figure 8x

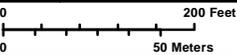
Potential Waters of the U.S.

**SH 72: FM 237 to US 87**



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019

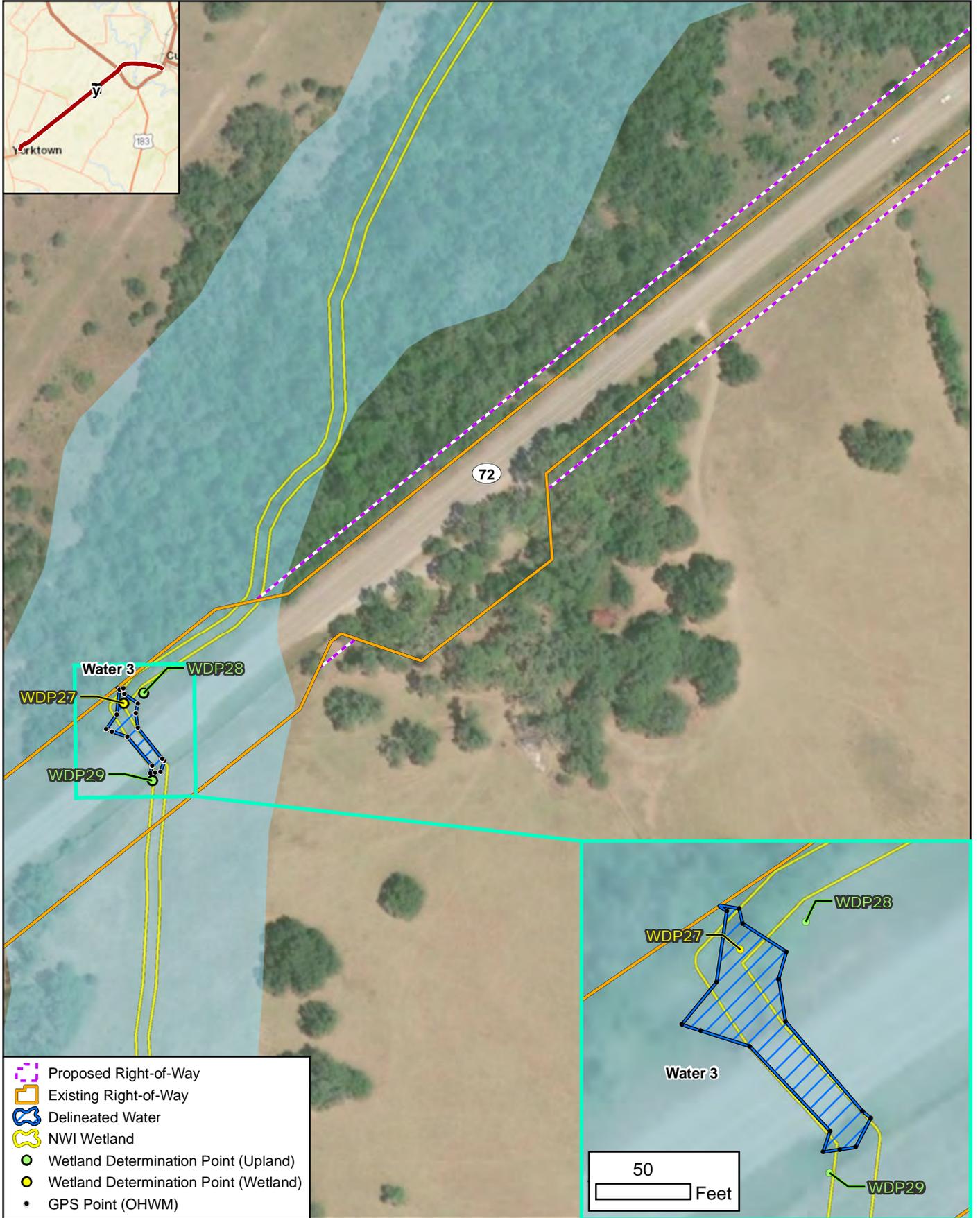


Figure 8y  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet
	Scale: 1:2,400	Date: 12/6/2019

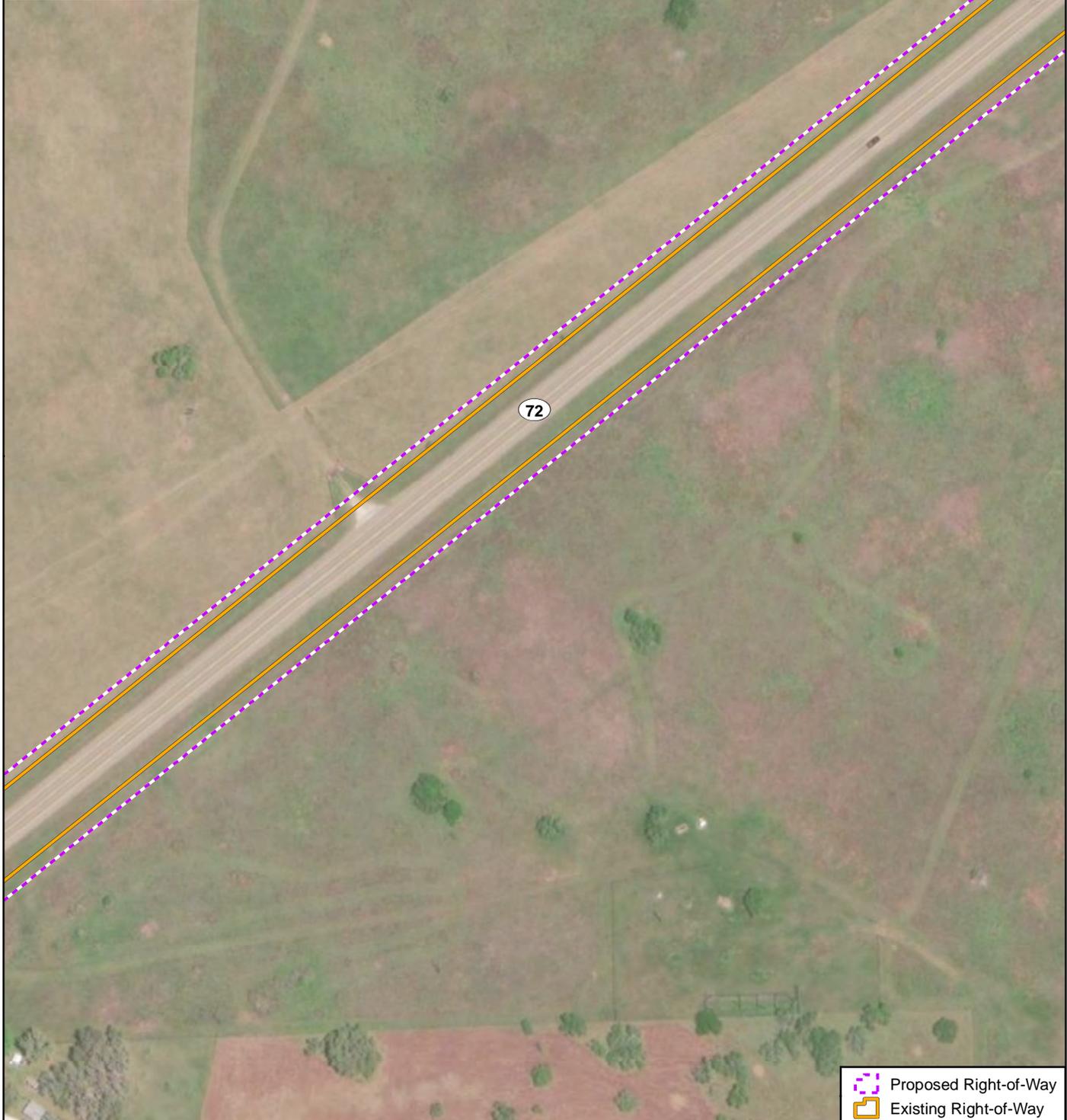
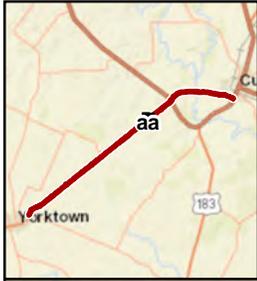


**Figure 8z**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters	Scale: 1:2,400	
	Date: 12/5/2019	

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



 Proposed Right-of-Way  
 Existing Right-of-Way

Figure 8aa

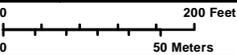
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019

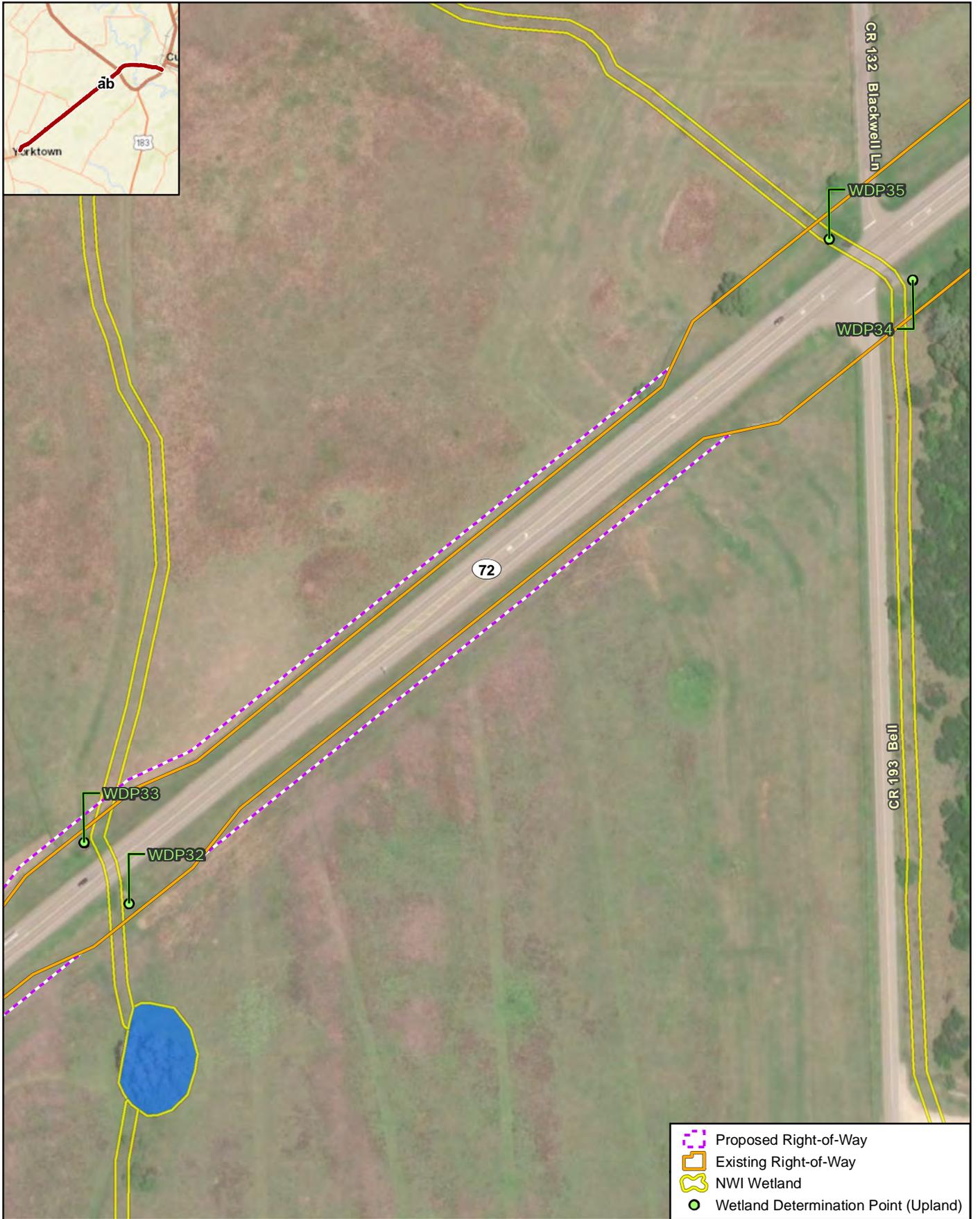


Figure 8ab  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	Proposed Right-of-Way
	Existing Right-of-Way
	NWI Wetland
	Wetland Determination Point (Upland)

	CSJs: 0270-01-051, 0271-10-014	
0	200 Feet	1 in = 200 feet
0	50 Meters	Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8ac

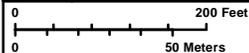
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
Scale: 1:2,400  
Date: 12/5/2019

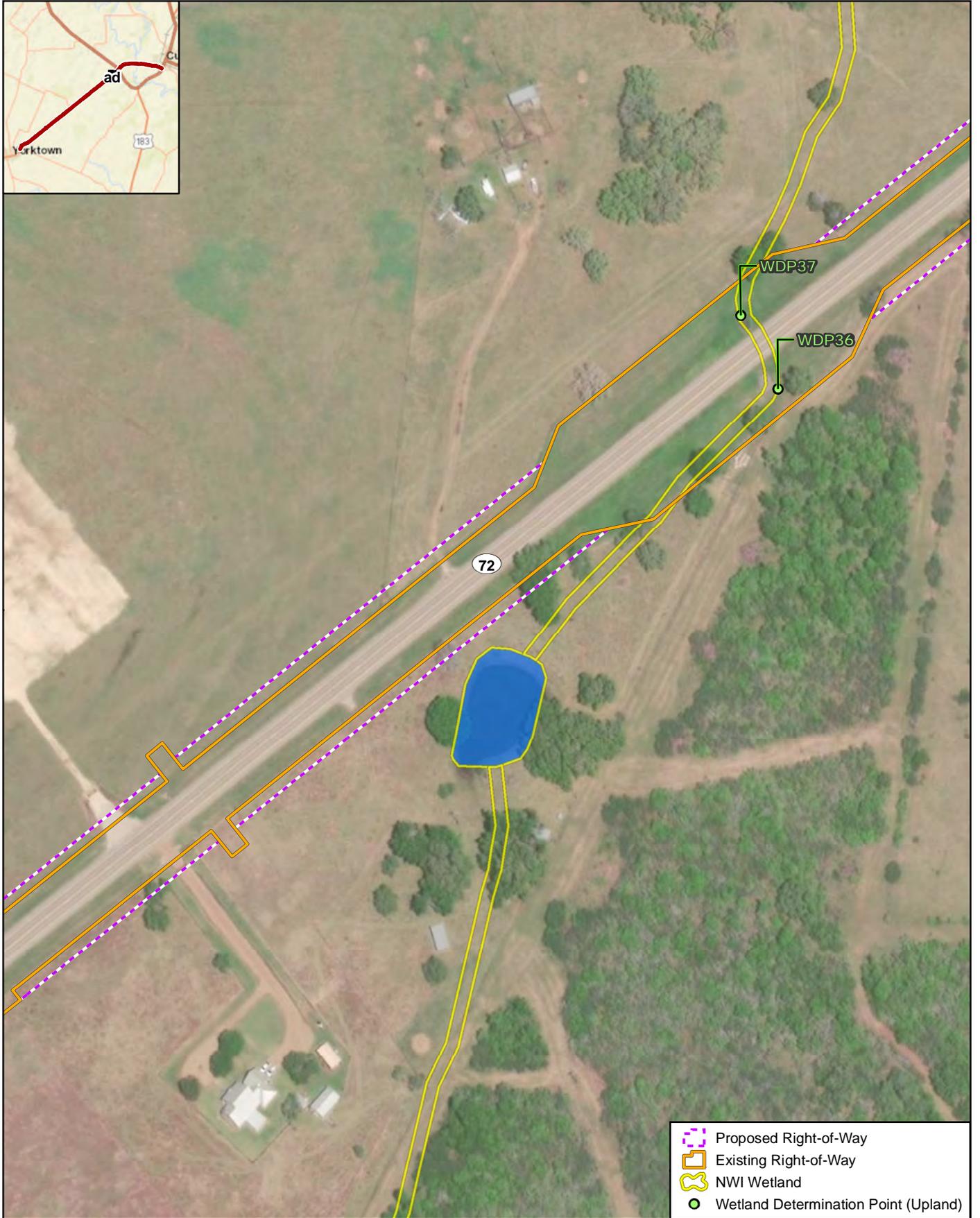


Figure 8ad  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400
		Date: 12/5/2019

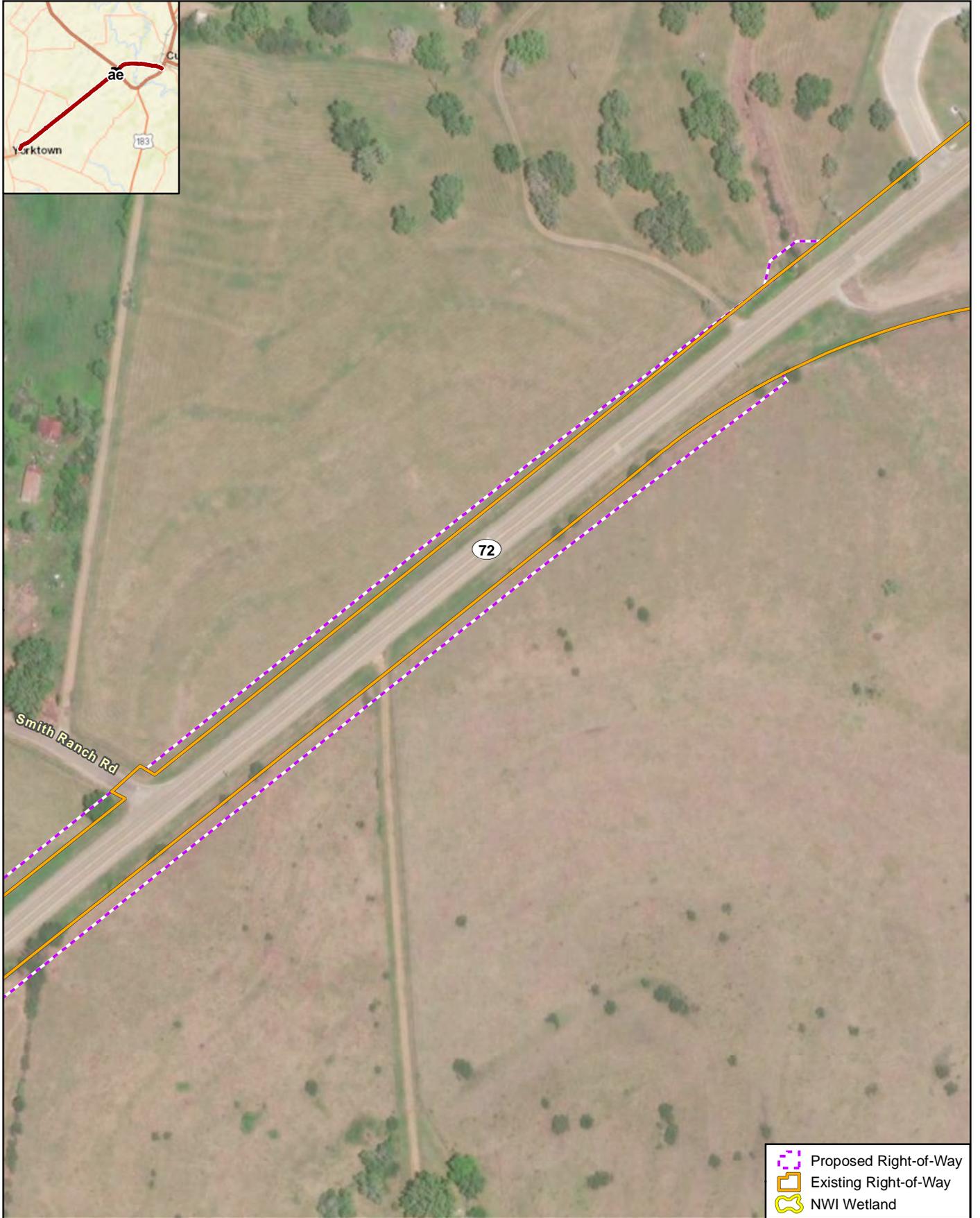


Figure 8ae  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

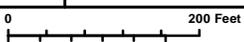
Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet 	1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8af  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

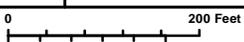
	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland
-  Wetland Determination Point (Upland)

**Figure 8ag**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400
		Date: 12/5/2019



- Proposed Right-of-Way
- Existing Right-of-Way
- NWI Wetland
- Wetland Determination Point (Upland)

Figure 8ah  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters		Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

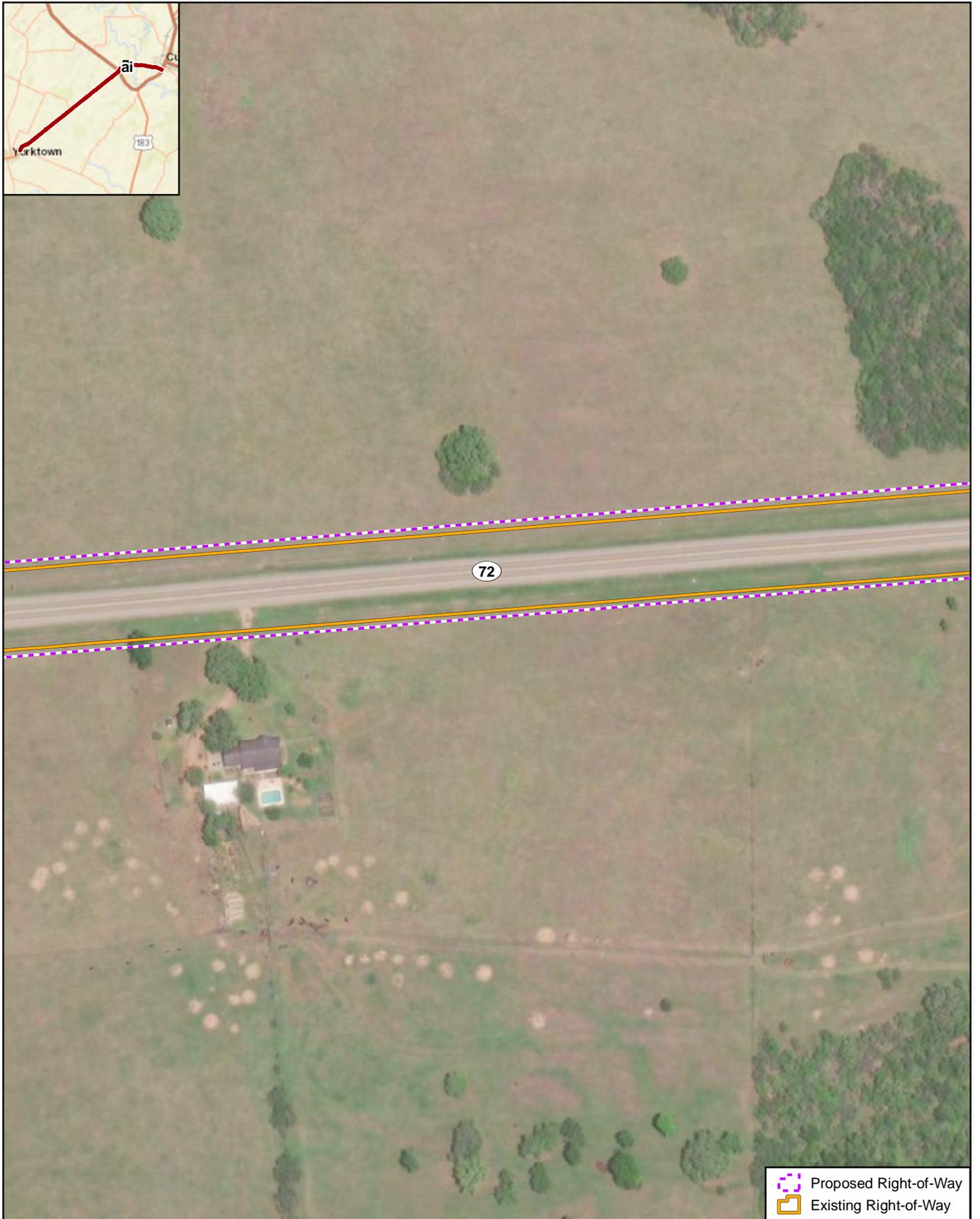
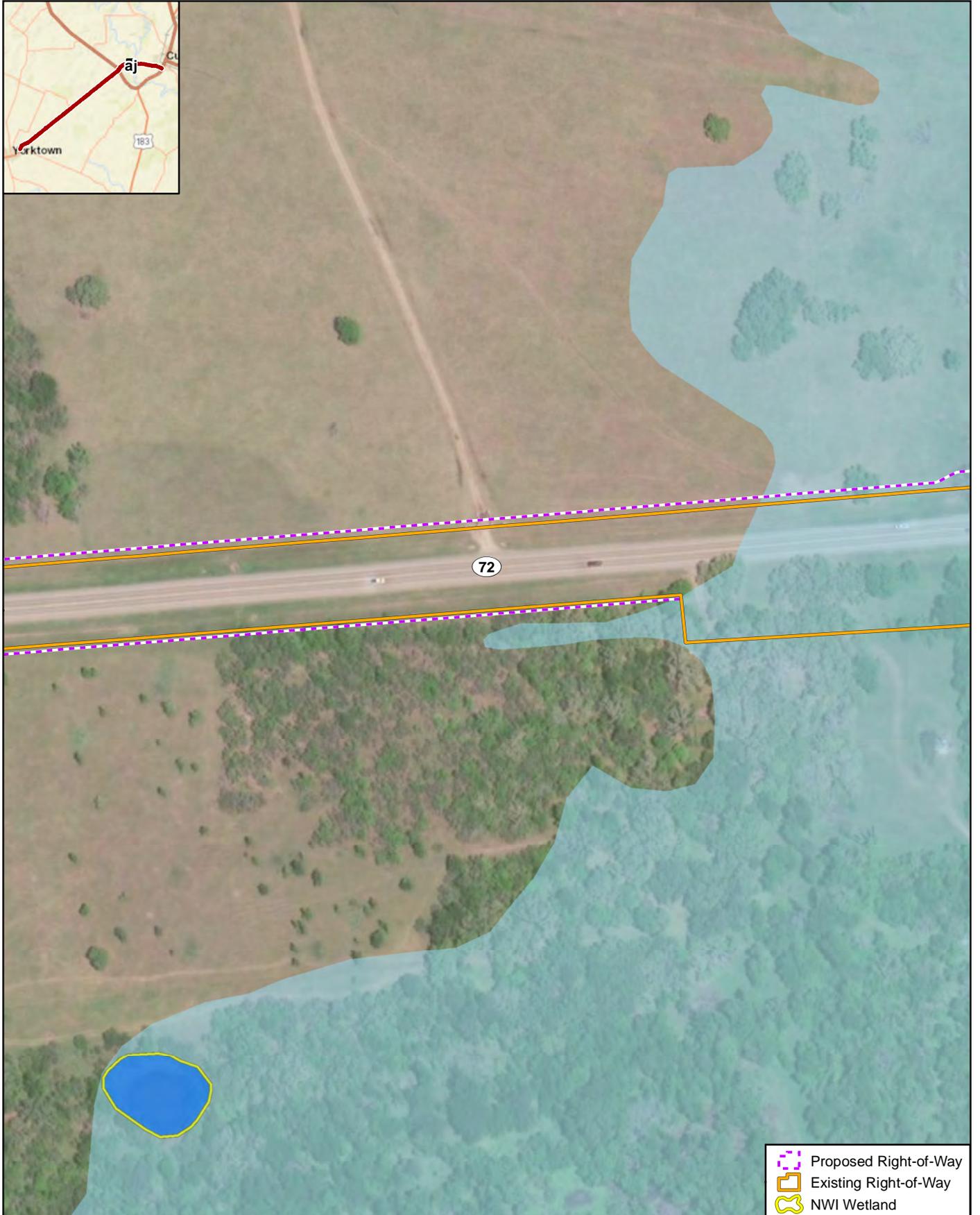


Figure 8ai  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8aj

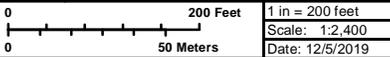
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



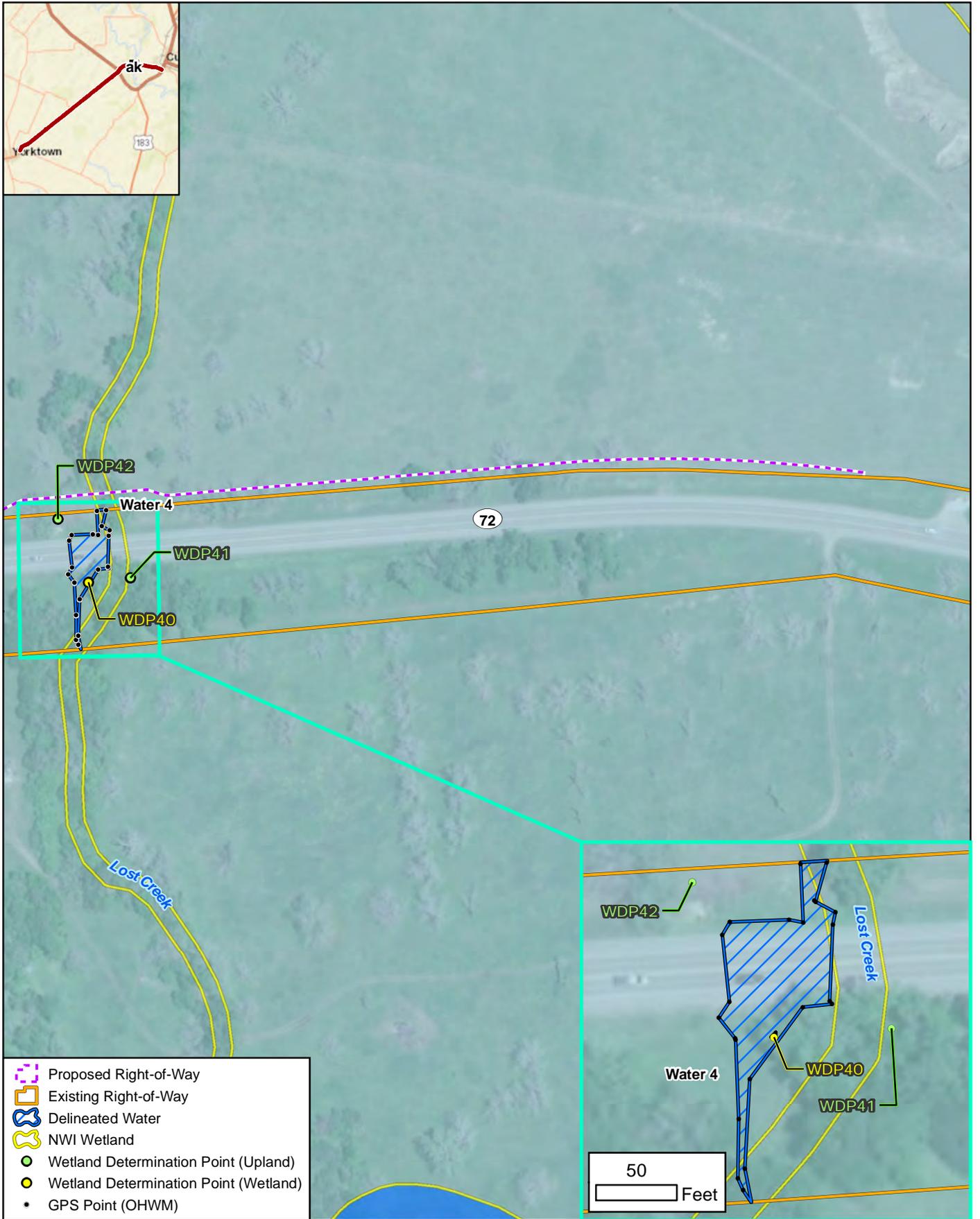


Figure 8ak  
Potential Waters of the U.S.

SH 72: FM 237 to US 87

CSJs: 0270-01-051, 0271-10-014

0 200 Feet 1 in = 200 feet  
0 50 Meters Scale: 1:2,400 Date: 12/6/2019

Data Sources: NHD (2018), FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



Figure 8aI  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

	CSJs: 0270-01-051, 0271-10-014	
		1 in = 200 feet Scale: 1:2,400 Date: 12/5/2019



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8am

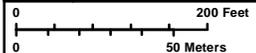
Potential Waters of the U.S.

**SH 72: FM 237 to US 87**



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
 Scale: 1:2,400  
 Date: 12/5/2019



Figure 8an  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

CSJs: 0270-01-051, 0271-10-014

0 200 Feet 1 in = 200 feet  
 0 50 Meters Scale: 1:2,400 Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



-  Proposed Right-of-Way
-  Existing Right-of-Way
-  NWI Wetland

Figure 8ao

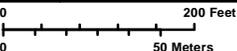
Potential Waters of the U.S.

SH 72: FM 237 to US 87



CSJs: 0270-01-051, 0271-10-014

Data Sources: NHD (2018),  
FEMA NFHL (2018), CMEC (2019)  
Aerial Source: DigitalGlobe (2017)



1 in = 200 feet  
Scale: 1:2,400  
Date: 12/5/2019

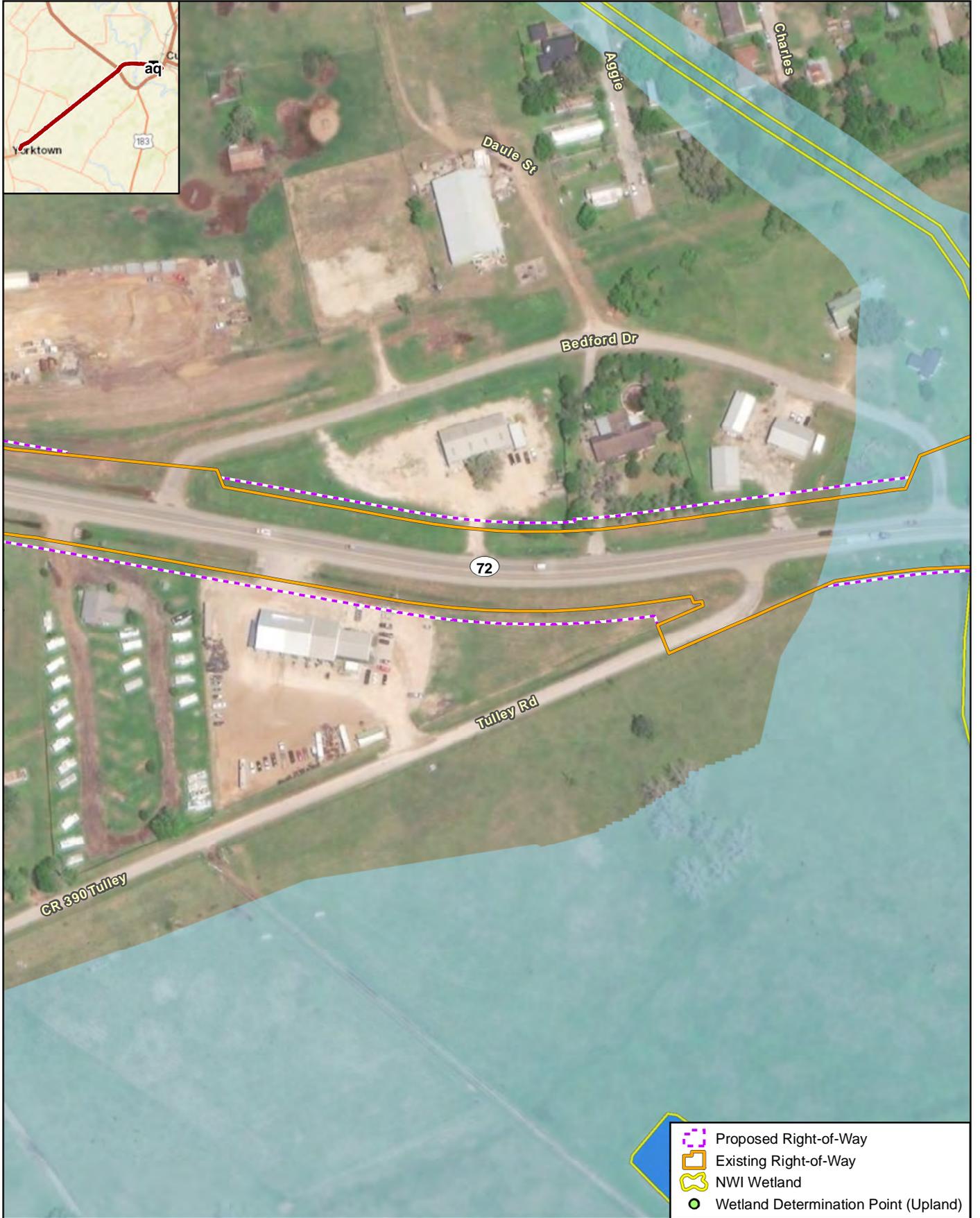


Figure 8ap  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

CSJs: 0270-01-051, 0271-10-014

0 200 Feet 1 in = 200 feet  
 0 50 Meters Scale: 1:2,400  
 Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



	Proposed Right-of-Way
	Existing Right-of-Way
	NWI Wetland
	Wetland Determination Point (Upland)

Figure 8aq  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
0	200 Feet	1 in = 200 feet
0	50 Meters	Scale: 1:2,400
		Date: 12/5/2019



**Figure 8ar**  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet 0 50 Meters	1 in = 200 feet Scale: 1:2,400 Date: 12/6/2019



Figure 8as  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

 Existing Right-of-Way

	CSJs: 0270-01-051, 0271-10-014	
	0 200 Feet	1 in = 200 feet
0 50 Meters		Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)



Figure 8at  
 Potential Waters of the U.S.  
**SH 72: FM 237 to US 87**

	CSJs: 0270-01-051, 0271-10-014	
	1 in = 200 feet	Scale: 1:2,400
		Date: 12/5/2019

Data Sources: NHD (2018),  
 FEMA NFHL (2018), CMEC (2019)  
 Aerial Source: DigitalGlobe (2017)

## **Attachment 2 - Wetland Determination Data Forms**

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 01  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): Concave Slope (%): 0-1  
 Subregion (LRR): LRR I MLRA 83A Lat: 28.99498916 Long: -97.48470281 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Tridens flavus</u>	50	Y	UPL	
2. <u>Solidago canadensis</u>	35	Y	FACU	
3. <u>Erigeron canadensis</u>	25	Y	FACU	
4. <u>Croton capitatus</u>	5	N	UPL	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>115</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 02  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Swale Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 28.99532338 Long: -97.48499336 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Baccharis neglecta</u>	<u>10</u>	<u>Y</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>10</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Dichanthium annulatum</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Tridens flavus</u>	<u>45</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Solidago canadensis</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>105</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 03  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR): LRR I MLRA 83A Lat: 28.99705917 Long: -97.47972634 Datum: NAD 83  
 Soil Map Unit Name: PaB - Papalote fine sandy loam, 1 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. Site was recently mowed.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus virginiana</u>	10	Y	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>10</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Stenotaphrum secundatum</u>	60	Y	FAC	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Toxicodendron radicans</u>	40	Y	FACU	
3. <u>Cynodon dactylon</u>	40	Y	FACU	
4. <u>Ambrosia psilostachya</u>	20	N	FACU	
5. <u>Ipomoea purpurea</u>	15	N	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>175</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test. Site was recently mowed.				

**SOIL**

Sampling Point: WDP 03

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-14	10YR 3/2	100	none				sandy loam	
14-18	10YR 4/3	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 04  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.00056294 Long: -97.47460316 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Paspalum notatum</u>	<u>80</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sorghum halepense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u>Ambrosia psilostachya</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>100</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		

Remarks:  
 The vegetative community passed the dominance test.

**SOIL**

Sampling Point: WDP 04

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 05  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.00411739 Long: -97.46933409 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vachellia farnesiana</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>30</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Paspalum notatum</u>	<u>70</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Ambrosia psilostachya</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
3. <u>Tridens flavus</u>	<u>10</u>	<u>N</u>	<u>UPL</u>	
4. <u>Elymus canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				

Remarks:  
 The vegetative community did not pass the dominance test.



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 06  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Toe of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.00432768 Long: -97.4695348 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Vachellia farnesiana</i></u>	30	Y	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>30</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u><i>Celtis laevigata</i></u>	10	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Ambrosia psilostachya</i></u>	50	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Tridens flavus</i></u>	30	Y	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>80</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 07  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Drainage ditch Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01059641 Long: -97.46036641 Datum: NAD 83  
 Soil Map Unit Name: To - Trinity clay, occasionally flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. Named creek with no OHWM or strong bed/bank - does not meet definition of water or wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vachellia farnesiana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>20</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Vachellia farnesiana</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>20</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Xanthium strumarium</u>	<u>30</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Ambrosia psilostachya</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Croton capitatus</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Sorghum halepense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>75</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 08  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Ditch Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01036297 Long: -97.46018573 Datum: NAD 83  
 Soil Map Unit Name: To - Trinity clay, occasionally flooded NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. Named creek with no OHWM or strong bed/bank - does not meet definition of water or wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Quercus fusiformis</i></u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>25</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u><i>Vachellia farnesiana</i></u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	
2. <u><i>Sesbania drummondii</i></u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>25</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Ambrosia psilostachya</i></u>	<u>60</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Solidago canadensis</i></u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
3. <u><i>Toxicodendron radicans</i></u>	<u>20</u>	<u>N</u>	<u>FACU</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>120</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u><i>None</i></u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 08

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	95	none				sandy clay loam	5% gravel. Construction fill.

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present. Fill dirt with 5% gravel.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3)
- (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3)
- (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary hydrology indicator D2 is present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 09  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): hilltop Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01292803 Long: -97.45652513 Datum: NAD 83  
 Soil Map Unit Name: PaB - Papalote fine sandy loam, 1 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ambrosia psilostachya</u>	40	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Tridens flavus</u>	30	Y	UPL	
3. <u>Bothriochloa ischaemum</u>	30	Y	UPL	
4. <u>Palafoxia rosea</u>	15	N	UPL	
5. <u>Elymus canadensis</u>	10	N	FACU	
6. <u>Ipomoea purpurea</u>	5	N	FACU	
7. <u>Bothriochloa barbinodis</u>	5	N	FACU	
8. _____				
9. _____				
10. _____				
	<u>135</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 09

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock  
 Depth (inches): 4"

**Hydric Soil Present?** Yes  No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 10  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): Lowland Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01948642 Long: -97.44682692 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sorghum halepense</u>	<u>55</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Chloracantha spinosa</u>	<u>35</u>	<u>Y</u>	<u>FACW</u>	
3. <u>Xanthium strumarium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Ambrosia psilostachya</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>105</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 11  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01973435 Long: -97.44697971 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vachellia farnesiana</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>25</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Ambrosia psilostachya</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sorghum halepense</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Dichanthium annulatum</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Xanthium strumarium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Croton capitatus</u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
6. <u>Solidago canadensis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>125</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vitis mustangensis</u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
<u>15</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 11

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 12  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): creek Local relief (concave, convex, none): concave Slope (%): 0-1  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.0197697 Long: -97.44700771 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: All three necessary wetland indicators are present. The data point is located in a wetland. Sample point located on bank of ephemeral stream.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vachellia farnesiana</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>50</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Vachellia farnesiana</u>	<u>10</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>10</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Chloracantha spinosa</u>	<u>5</u>	<u>Y</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Xanthium strumarium</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>10</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>Vitis mustangensis</u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	
2. _____	_____	_____	_____	
<u>10</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test; however, tree, sapling, and woody vine strata were located outside of ephemeral stream. Vegetation assumed hydric.

**SOIL**

Sampling Point: WDP 12

<b>Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)</b>								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 4/2	100	none				sandy clay	
10-18	10YR 3/1	100	none				clay loam	

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 13  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.01968975 Long: -97.44708755 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vachellia farnesiana</u>	<u>15</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>15</u> = Total Cover				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
1. <u>Vachellia farnesiana</u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>25</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Sorghum halepense</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Ambrosia psilostachya</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
3. <u>Parthenium hysterophorus</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
4. <u>Digitaria sanguinalis</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>115</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>Vitis rotundifolia</u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
<u>5</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 13

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 14  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.02496812 Long: -97.4388993 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Quercus fusiformis</i></u>	15	Y	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40%</u> (A/B)
2. <u><i>Vachellia farnesiana</i></u>	10	Y	FACU	
3. _____				
4. _____				
<u>25</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>35</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u><i>Ilex vomitoria</i></u>	35	Y	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
<u>35</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Dichanthium annulatum</i></u>	50	Y	UPL	
2. <u><i>Paspalum notatum</i></u>	20	Y	FAC	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>70</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 14

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-4	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock  
 Depth (inches): 4"

**Hydric Soil Present?** Yes  No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 15  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): lowland Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.02918698 Long: -97.43273748 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Dichanthium annulatum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	
2. <u>Paspalum notatum</u>	<u>40</u>	<u>Y</u>	<u>FAC</u>	
3. <u>Iva annua</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
4. <u>Chloracantha spinosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>Vitis mustangensis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	
2. _____				
<u>5</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 15

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-8	10YR 3/2	100	none				sandy loam	
8-18	10YR 3/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.15.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 16  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): flat Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.0293403 Long: -97.43300647 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Paspalum notatum</u>	<u>50</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Dichanthium annulatum</u>	<u>40</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Chloris canterai</u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
4. <u>Chloracantha spinosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>120</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test or prevalence index.				

**SOIL**

Sampling Point: WDP 16

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 2/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary hydrology indicator B10 is present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 17  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.03313283 Long: -97.42756878 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Paspalum notatum</u>	<u>80</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Coryza canadensis</u>	<u>20</u>	<u>N</u>	<u>FACU</u>	
3. <u>Chloracantha spinosa</u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>105</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Vitis mustangensis</u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>5</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test or prevalence index.

**SOIL**

Sampling Point: WDP 17

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 3/2	100	none				clay	
3-18	10YR 6/2	100	none				sandy clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes  No**

**Remarks:**

Hydric soil indicator F3 is present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present? Yes \_\_\_\_\_ No**

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 18  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): creek Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.03315148 Long: -97.42749192 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: All three necessary wetland indicators are present. The data point is located in a wetland. Point taken in Shiloh Creek - OHWM 6' wide, TOB 10' No flow at time of survey.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>0</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>0</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>100</u>				

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 \_\_\_ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>  
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Hydrophytic Vegetation Present?** Yes  No

Remarks:  
 No vegetation present - all eroded sediment. Point was taken in channel - hydrophytic vegetation assumed.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 19  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.03291737 Long: -97.42727361 Datum: NAD 83  
 Soil Map Unit Name: OrB - Orelia fine sandy loam, 0 to 2 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. Adjacent to Shiloh Creek.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Quercus fusiformis</i></u>	<u>15</u>	<u>Y</u>	<u>UPL</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>15</u> = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>None</i></u>	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Paspalum notatum</i></u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Ambrosia psilostachya</i></u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u><i>Toxicodendron radicans</i></u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
4. <u><i>Nekemias arborea</i></u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
5. <u><i>Chloracantha spinosa</i></u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>85</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Vitis mustangensis</i></u>	<u>5</u>	<u>Y</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
<u>5</u> = Total Cover				
% Bare Ground in Herb Stratum <u>15</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 19

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-5	10YR 3/2	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: rock  
 Depth (inches): 5"

**Hydric Soil Present?** Yes  No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes  No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes  No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes  No

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 20  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.04946077 Long: -97.40363662 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sorghum halepense</u>	70	Y	FACU	
2. <u>Nekemias arborea</u>	20	N	FAC	
3. <u>Solidago canadensis</u>	20	N	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>110</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 20

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 21  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): erosional creek Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.04957161 Long: -97.40362083 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Two of three necessary wetland indicators are present. The data point is not located in a wetland. Standing water from recent rains. No OHWM or sign of flow - highly eroded banks & heavily grazed/impacted by cattle.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix nigra</u>	<u>2</u>	<u>N</u>	<u>FACW</u>	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>2</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Juncus effusus</u>	<u>70</u>	<u>Y</u>	<u>OBL</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cynodon dactylon</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>110</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		

Remarks:  
 The vegetative community did not pass the dominance test. Highly disturbed.



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 22  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.0492408 Long: -97.40342502 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. No OHWM or bed/bank.	

### VEGETATION – Use scientific names of plants.

Stratum	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
<u>Tree Stratum</u> (Plot size: <u>30'</u> )				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
	<u>0</u> = Total Cover			<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u> = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>5'</u> )				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Sorghum halepense</u>	60	Y	FACU	
2. <u>Dichanthium annulatum</u>	40	Y	UPL	
3. <u>Cynodon dactylon</u>	20	N	FACU	
4. <u>Setaria scheelei</u>	20	N	UPL	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>140</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
1. <u>None</u>				
2. _____				
	<u>0</u> = Total Cover			
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 22

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 23  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): top of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.05251259 Long: -97.39867385 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. No OHWM or bed/bank.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Lolium perenne</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Sorghum halepense</u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Andropogon glomeratus</u>	<u>15</u>	<u>N</u>	<u>FACW</u>	
4. <u>Panicum virgatum</u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
5. <u>Solidago canadensis</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>110</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
<b>% Bare Ground in Herb Stratum <u>0</u></b>				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 24  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): top of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.05275558 Long: -97.39885944 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. No OHWM or bed/bank.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sorghum halepense</u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cynodon dactylon</u>	<u>40</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Panicum virgatum</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u>Xanthium strumarium</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. <u>Opuntia engelmannii</u>	<u>2</u>	<u>N</u>	<u>UPL</u>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>132</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Dark Surface (S7) (LRR G)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> High Plains Depressions (F16)
<input type="checkbox"/> Stratified Layers (A5) (LRR F)	<input type="checkbox"/> (LRR H outside of MLRA 72 & 73)
<input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H)	<input type="checkbox"/> Reduced Vertic (F18)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Red Parent Material (TF2)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)	<sup>3</sup> Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	
<input type="checkbox"/> Sandy Redox (S5)	
<input type="checkbox"/> Stripped Matrix (S6)	
<input type="checkbox"/> Loamy Mucky Mineral (F1)	
<input type="checkbox"/> Loamy Gleyed Matrix (F2)	
<input type="checkbox"/> Depleted Matrix (F3)	
<input type="checkbox"/> Redox Dark Surface (F6)	
<input type="checkbox"/> Depleted Dark Surface (F7)	
<input type="checkbox"/> Redox Depressions (F8)	
<input type="checkbox"/> High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)	

<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____    No <input checked="" type="checkbox"/>
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Remarks:  
No hydric soil indicators are present.

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> (where tilled)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<input type="checkbox"/> Salt Crust (B11)	
<input type="checkbox"/> Aquatic Invertebrates (B13)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b> Surface Water Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____	<b>Wetland Hydrology Present?</b> Yes _____    No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
  
Remarks:  
Secondary hydrology indicator D2 was present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 25  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 1  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.05530902 Long: -97.39445664 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. No OHWM or bed/bank.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Celtis laevigata</i></u>	<u>10</u>	<u>Y</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u><i>Zanthoxylum clava-herculis</i></u>	<u>2</u>	<u>N</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>2</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Sorghum halepense</i></u>	<u>70</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Cynodon dactylon</i></u>	<u>25</u>	<u>Y</u>	<u>FACU</u>	
3. <u><i>Iva annua</i></u>	<u>15</u>	<u>N</u>	<u>FAC</u>	
4. <u><i>Opuntia engelmannii</i></u>	<u>5</u>	<u>N</u>	<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>115</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test.



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 26  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.05569204 Long: -97.39456812 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Vachellia farnesiana</u>	<u>20</u>	<u>Y</u>	<u>FACU</u>	
2. <u>Sideroxylon lanuginosum</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
3. _____				
<u>25</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Parthenium hysterophorus</u>	<u>60</u>	<u>Y</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cynodon dactylon</u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	
3. <u>Symphotrichum ericoides</u>	<u>25</u>	<u>N</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>135</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 26

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/2	100	none				sandy clay loam	
12-18	10YR 5/2	100	none				sandy clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
  - Coast Prairie Redox (A16) (LRR F, G, H)
  - Dark Surface (S7) (LRR G)
  - High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
  - Reduced Vertic (F18)
  - Red Parent Material (TF2)
  - Very Shallow Dark Surface (TF12)
  - Other (Explain in Remarks)
- <sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 27  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): riverine Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06064465 Long: -97.38746845 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: All three necessary wetland indicators are present. The data point is located in a wetland.	

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

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Salix nigra</u>	50	Y	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75%</u> (A/B)	
2. <u>Quercus fusiformis</u>	10	N	UPL		
3. <u>Celtis laevigata</u>	5	N	FAC		
4. _____	_____	_____	_____		
		65 = Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )					
1. <u>None</u>					<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____					
3. _____					
4. _____					
5. _____					
		0 = Total Cover		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
<u>Herb Stratum</u> (Plot size: <u>5'</u> )					
1. <u>Schoenoplectus pungens</u>	50	Y	OBL		<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
2. <u>Eleocharis palustris</u>	10	N	OBL		
3. <u>Solidago canadensis</u>	10	N	FACU		
4. <u>Xanthium strumarium</u>	5	N	FAC		
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
		75 = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )					
1. <u>Vitis mustangensis</u>	15	Y	UPL	<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	
2. <u>Nekemias arborea</u>	10	Y	FAC		
		25 = Total Cover			
% Bare Ground in Herb Stratum <u>25</u>					
Remarks: The vegetative community passed the dominance test.					

**SOIL**

Sampling Point: WDP 27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 4/2	100	none				sandy loam	
3-5	10YR 5/2	100	none				sandy clay	
5-12	10YR 6/2	97	10YR 6/8	3	C	M	clay	
12-18	10YR 3/1	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR F) <input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)	<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input checked="" type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

Restrictive Layer (if present):	Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Type: <u>none</u> Depth (inches): _____	

Remarks:  
Hydric soil indicator F3 is present.

**HYDROLOGY**

Wetland Hydrology Indicators:	
Primary Indicators (minimum of one required; check all that apply)	Secondary Indicators (minimum of two required)
<input checked="" type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)
<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input checked="" type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input checked="" type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)	

Field Observations:	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2"</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____	

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

Remarks:  
Primary wetland hydrology indicator A1 is present. Secondary wetland hydrology indicators B10 and D2 are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 28  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06068561 Long: -97.3873739 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Carya illinoensis</i></u>	<u>30</u>	<u>Y</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. <u><i>Salix nigra</i></u>	<u>25</u>	<u>Y</u>	<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		<u>55</u>	<u>= Total Cover</u>	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>none</i></u>	_____	_____	_____	<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		<u>0</u>	<u>= Total Cover</u>	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Sorghum halepense</i></u>	<u>50</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Dichanthium annulatum</i></u>	<u>25</u>	<u>Y</u>	<u>UPL</u>	
3. <u><i>Panicum virgatum</i></u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
4. <u><i>Solidago canadensis</i></u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
5. <u><i>Andropogon glomeratus</i></u>	<u>5</u>	<u>N</u>	<u>FACW</u>	
6. <u><i>Iva annua</i></u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
		<u>105</u>	<u>= Total Cover</u>	
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Vitis mustangensis</i></u>	<u>10</u>	<u>Y</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. <u><i>Ampelopsis cordata</i></u>	<u>5</u>	<u>Y</u>	<u>FAC</u>	
		<u>15</u>	<u>= Total Cover</u>	
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 29  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06032051 Long: -97.38733893 Datum: NAD 83  
 Soil Map Unit Name: NsC - Nusil-Rhymes association, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Andropogon glomeratus</u>	25	Y	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Solidago canadensis</u>	25	Y	FACU	
3. <u>Sorghum halepense</u>	25	Y	FACU	
4. <u>Nekemias arborea</u>	20	N	FAC	
5. <u>Rubus trivialis</u>	10	N	FACU	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>105</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 30  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.0640208 Long: -97.38192542 Datum: NAD 83  
 Soil Map Unit Name: PaB - Papalote fine sandy loam, 1 to 3 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland. NWI, no ordinary high water mark or bed and bank.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Sorghum halepense</u>	90	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cynodon dactylon</u>	60	Y	FACU	
3. <u>Ludwigia octovalvis</u>	15	N	OBL	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>165</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		

Remarks:  
 The vegetative community did not meet hydrophytic vegetation criteria.

**SOIL**

Sampling Point: WDP 30

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	98	7.5 YR 4/6	2	c	m	clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

**Remarks:**

One hydric soil indicator (F6) is present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary hydrology indicator D2 was present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 31  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): toe slope Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06417927 Long: -97.38214995 Datum: NAD 83  
 Soil Map Unit Name: PaB - Papalote fine sandy loam, 1 to 3 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: One of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

<u>Tree Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Celtis laevigata</i></u>	10	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60%</u> (A/B)
2. <u><i>Quercus fusiformis</i></u>	5	Y	UPL	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>15</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<u>Sapling/Shrub Stratum</u> (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Ilex vomitoria</i></u>	25	Y	FAC	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>25</u> = Total Cover				
<u>Herb Stratum</u> (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Dichanthium annulatum</i></u>	50	Y	UPL	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Nekemias arborea</i></u>	45	Y	FAC	
3. <u><i>Parthenium hysterophorus</i></u>	15	N	FAC	
4. <u><i>Toxicodendron radicans</i></u>	10	N	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>120</u> = Total Cover				
<u>Woody Vine Stratum</u> (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>	0	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community passed the dominance test.

**SOIL**

Sampling Point: WDP 31

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	100	none				sandy clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary hydrology indicator D2 is present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 32  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06945729 Long: -97.37392491 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. NWI feature, no bed and bank or ordinary high water mark.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Cynodon dactylon</u>	95	Y	FACU	
2. <u>Ambrosia psilostachya</u>	15	N	FACU	
3. <u>Sorghum halepense</u>	10	N	FACU	
4. <u>Opuntia engelmannii</u>	5	N	UPL	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>125</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 32

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary hydrology indicator D2 is present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 33  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): lowland Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.06971291 Long: -97.37413478 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland. NWI feature, no bed and bank or ordinary high water mark	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Cynodon dactylon</u>	80	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sorghum halepense</u>	30	Y	FACU	
3. <u>Parthenium hysterophorus</u>	15	N	FAC	
4. <u>Ambrosia psilostachya</u>	10	N	FACU	
5. <u>Croton capitatus</u>	10	N	UPL	
6. <u>Xanthium strumarium</u>	5	N	FAC	
7. _____				
8. _____				
9. _____				
10. _____				
	<u>150</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 34  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.07200253 Long: -97.370182 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sida ciliaris</u>	55	Y	UPL	
2. <u>Cynodon dactylon</u>	25	Y	FACU	
3. <u>Opuntia engelmannii</u>	10	N	UPL	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>90</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>10</u>				

Remarks:  
 The vegetative community did not meet hydrophytic vegetation criteria.

**SOIL**

Sampling Point: WDP 34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 3/1	100					clay loam	
12-18	10YR 4/1	98	10YR 5/8	2	C	M	clay	
<sup>1</sup> Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup> Location: PL=Pore Lining, M=Matrix.								
<b>Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)</b>						<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>		
<input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) (LRR F) <input type="checkbox"/> 1 cm Muck (A9) (LRR F, G, H) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> 2.5 cm Mucky Peat or Peat (S2) (LRR G, H) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR F)			<input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Loamy Mucky Mineral (F1) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> High Plains Depressions (F16)			<input type="checkbox"/> 1 cm Muck (A9) (LRR I, J) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR F, G, H) <input type="checkbox"/> Dark Surface (S7) (LRR G) <input type="checkbox"/> High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73) <input type="checkbox"/> Reduced Vertic (F18) <input type="checkbox"/> Red Parent Material (TF2) <input type="checkbox"/> Very Shallow Dark Surface (TF12) <input type="checkbox"/> Other (Explain in Remarks)		
<b>Restrictive Layer (if present):</b> Type: <u>none</u> Depth (inches): _____						<b>Hydric Soil Present?</b> Yes _____    No <input checked="" type="checkbox"/>		
Remarks: No hydric soil indicators are present.								

**HYDROLOGY**

Wetland Hydrology Indicators:		
Primary Indicators (minimum of one required; check all that apply)		Secondary Indicators (minimum of two required)
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Salt Crust (B11) <input type="checkbox"/> Aquatic Invertebrates (B13) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where not tilled) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) (where tilled) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> FAC-Neutral Test (D5) <input type="checkbox"/> Frost-Heave Hummocks (D7) (LRR F)
<b>Field Observations:</b> Surface Water Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present?    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe)    Yes _____    No <input checked="" type="checkbox"/> Depth (inches): _____		<b>Wetland Hydrology Present?</b> Yes _____    No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:		
Remarks: No hydrology indicators are present.		

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 35  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.07217754 Long: -97.37057309 Datum: NAD 83  
 Soil Map Unit Name: LmC - Leming loamy fine sand, 0 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: Two of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status															
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)														
2. _____																		
3. _____																		
4. _____																		
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>15</u></td> <td>x 5 = <u>75</u></td> </tr> <tr> <td>Column Totals: <u>125</u> (A)</td> <td><u>515</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>4.12</u>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>0</u>	x 2 = <u>0</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>15</u>	x 5 = <u>75</u>	Column Totals: <u>125</u> (A)	<u>515</u> (B)
Total % Cover of:	Multiply by:																	
OBL species <u>0</u>	x 1 = <u>0</u>																	
FACW species <u>0</u>	x 2 = <u>0</u>																	
FAC species <u>0</u>	x 3 = <u>0</u>																	
FACU species <u>110</u>	x 4 = <u>440</u>																	
UPL species <u>15</u>	x 5 = <u>75</u>																	
Column Totals: <u>125</u> (A)	<u>515</u> (B)																	
<u>0</u> = Total Cover																		
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>																		
1. <u>None</u>																		
2. _____																		
3. _____																		
4. _____																		
5. _____																		
<u>0</u> = Total Cover																		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>																		
1. <u>Cynodon dactylon</u>	100	Y	FACU															
2. <u>Dichanthium annulatum</u>	15	N	UPL															
3. <u>Sorghum halepense</u>	10	N	FACU															
4. _____																		
5. _____																		
6. _____																		
7. _____																		
8. _____																		
9. _____																		
10. _____																		
<u>125</u> = Total Cover																		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>																		
1. <u>None</u>																		
2. _____																		
<u>0</u> = Total Cover																		
% Bare Ground in Herb Stratum <u>0</u>																		

Remarks:  
 The vegetative community did not pass the dominance test or prevalence index.



## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 36  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): ditch Local relief (concave, convex, none): concave Slope (%): 1  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.07769812 Long: -97.36183115 Datum: NAD 83  
 Soil Map Unit Name: SaC - Sarnosa fine sandy loam, 2 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Quercus fusiformis</i></u>	5	Y	UPL	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>5</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Stenotaphrum secundatum</i></u>	70	Y	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Dichanthium annulatum</i></u>	40	Y	UPL	
3. <u><i>Sorghum halepense</i></u>	20	N	FACU	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>130</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 36

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present? Yes \_\_\_\_\_ No**

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present? Yes \_\_\_\_\_ No**

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 37  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): toe of slope Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.07800586 Long: -97.36200264 Datum: NAD 83  
 Soil Map Unit Name: SaC - Sarnosa fine sandy loam, 2 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>None</u>				Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sorghum halepense</u>	100	Y	FACU	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 37

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/1	100	none				clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16)
- (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 (includes capillary fringe)

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 38  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): lowland Local relief (concave, convex, none): none Slope (%): 0-1  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08818551 Long: -97.34918183 Datum: NAD 83  
 Soil Map Unit Name: Dg - Degola soils, frequently flooded NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Sorghum halepense</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Cynodon dactylon</u>	<u>15</u>	<u>N</u>	<u>FACU</u>	
3. <u>Rumex crispus</u>	<u>5</u>	<u>N</u>	<u>FAC</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>100</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 38

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-3	10YR 5/2	100	none				sandy loam	
3-18	10YR 3/1	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 39  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): lowland Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08842891 Long: -97.34932437 Datum: NAD 83  
 Soil Map Unit Name: Dg - Degola soils, frequently flooded NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Carya illinoensis</i></u>	30	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>9</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66%</u> (A/B)
2. <u><i>Ulmus americana</i></u>	10	Y	FAC	
3. <u><i>Celtis laevigata</i></u>	10	Y	FAC	
4. _____				
<u>50</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Celtis laevigata</i></u>	5	Y	FAC	
2. _____				
3. _____				
4. _____				
5. _____				
<u>5</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Sorghum halepense</i></u>	55	Y	FACU	
2. <u><i>Nekemias arborea</i></u>	25	Y	FAC	
3. <u><i>Ambrosia psilostachya</i></u>	25	Y	FACU	
4. <u><i>Solidago canadensis</i></u>	5	N	FACU	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>110</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Vitis mustangensis</i></u>	15	Y	UPL	
2. <u><i>Nekemias arborea</i></u>	10	Y	FAC	
<u>25</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community passed the dominance test.

**SOIL**

Sampling Point: WDP 39

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-7	10YR 3/1	100	none				clay	
7-14	10YR 5/3	100	none				sandy clay	
14-18	10YR 3/2	100	none				clay	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 40  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): lowland Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.09048593 Long: -97.33545558 Datum: NAD 83  
 Soil Map Unit Name: Mf - Meguin soils, frequently flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland; however, data point was collected on stream bed to document conditions adjacent to NHD feature. Stream conditions presumed hydric.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus macrocarpa</u>	25	Y	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>25</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Sorghum halepense</u>	65	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Xanthium strumarium</u>	20	Y	FAC	
3. <u>Cucurbita foetidissima</u>	5	N	UPL	
4. <u>Oplismenus hirtellus</u>	5	N	FAC	
5. <u>Ambrosia artemisiifolia</u>	5	N	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>none</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 40

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) **(LRR F)**
- 1 cm Muck (A9) **(LRR F, G, H)**
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) **(LRR G, H)**
- 5 cm Mucky Peat or Peat (S3) **(LRR F)**
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) **(MLRA 72 & 73 of LRR H)**

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) **(LRR I, J)**
- Coast Prairie Redox (A16) **(LRR F, G, H)**
- Dark Surface (S7) **(LRR G)**
- High Plains Depressions (F16) **(LRR H outside of MLRA 72 & 73)**
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) **(where not tilled)**
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) **(where tilled)**
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) **(LRR F)**

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

Secondary wetland hydrology indicator B10 was present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 41  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 2  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.09050156 Long: -97.33525687 Datum: NAD 83  
 Soil Map Unit Name: Mf - Meguin soils, frequently flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Quercus macrocarpa</u>	50	Y	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33%</u> (A/B)
2. <u>Ulmus americana</u>	25	Y	FAC	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>75</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>	5	Y	FACU	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>5</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Stenotaphrum secundatum</u>	65	Y	FAC	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Sorghum halepense</u>	25	Y	FACU	
3. <u>Parthenium hysterophorus</u>	15	N	FAC	
4. <u>Malvaviscus arboreus</u>	5	N	FACU	
5. <u>Vachellia farnesiana</u>	2	N	FACU	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>112</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>Toxicodendron radicans</u>	2	Y	FACU	
2. _____	_____	_____	_____	
<u>2</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 41

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-12	10YR 5/3	100	none				sand	
12-18	10YR 3/2	100	none				sandy loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 42  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.09074881 Long: -97.33559414 Datum: NAD 83  
 Soil Map Unit Name: Mf - Meguin soils, frequently flooded NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Carya illinoensis</i></u>	40	Y	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
		40 = Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
		0 = Total Cover		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u><i>Sorghum halepense</i></u>	70	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Ambrosia psilostachya</i></u>	20	N	FACU	
3. <u><i>Nekemias arborea</i></u>	10	N	FAC	
4. <u><i>Smilax bona-nox</i></u>	5	N	FACU	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
		105 = Total Cover		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
		0 = Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 43  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08739996 Long: -97.30458336 Datum: NAD 83  
 Soil Map Unit Name: TeC - Tremona loamy fine sand, 1 to 5 percent slopes NWI classification: R4SBC

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>20</u>	<u>Y</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>20</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Cynodon dactylon</u>	<u>80</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Ambrosia psilostachya</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
3. <u>Polygonum hydropiperoides</u>	<u>10</u>	<u>N</u>	<u>OBL</u>	
4. <u>Sorghum halepense</u>	<u>5</u>	<u>N</u>	<u>FACU</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
<u>105</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>	_____	_____	_____	
2. _____	_____	_____	_____	
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.16.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 44  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): swale Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08764971 Long: -97.30456015 Datum: NAD 83  
 Soil Map Unit Name: TeC - Tremona loamy fine sand, 1 to 5 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
	<u>0</u>	= Total Cover		
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Cynodon dactylon</u>	<u>100</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
	<u>100</u>	= Total Cover		
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
	<u>0</u>	= Total Cover		
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				



**WETLAND DETERMINATION DATA FORM – Great Plains Region**

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.17.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 45  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 50  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08705368 Long: -97.30232851 Datum: NAD 83  
 Soil Map Unit Name: MaA - Mabank fine sandy loam, 0 to 1 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____				
3. _____				
4. _____				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>None</u>				
2. _____				
3. _____				
4. _____				
5. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Cynodon dactylon</u>	<u>90</u>	<u>Y</u>	<u>FACU</u>	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Dichanthium annulatum</u>	<u>30</u>	<u>Y</u>	<u>UPL</u>	
3. <u>Sorghum halepense</u>	<u>10</u>	<u>N</u>	<u>FACU</u>	
4. <u>Nekemias arborea</u>	<u>10</u>	<u>N</u>	<u>FAC</u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
<u>140</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. <u>None</u>				
2. _____				
<u>0</u> = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				

Remarks:  
 The vegetative community did not pass the dominance test.

**SOIL**

Sampling Point: WDP 45

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	10YR 3/2	100	none				sandy loam	
10-18	10YR 4/3	95	none				sandy clay	5% gravel

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

## WETLAND DETERMINATION DATA FORM – Great Plains Region

Project/Site: SH 72: FM 237 to US 87 City/County: DeWitt County Sampling Date: 10.17.2019  
 Applicant/Owner: TxDOT Yoakum District State: Texas Sampling Point: WDP 46  
 Investigator(s): Austin Blase, Dietrich Gaitz Section, Township, Range: N/A  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR): LRR I MLRA 83A Lat: 29.08700623 Long: -97.30214492 Datum: NAD 83  
 Soil Map Unit Name: MaA - Mabank fine sandy loam, 0 to 1 percent slopes NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation , Soil , or Hydrology  significantly disturbed? Are "Normal Circumstances" present? Yes  No   
 Are Vegetation , Soil , or Hydrology  naturally problematic? (If needed, explain any answers in Remarks.)

### SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Remarks: None of three necessary wetland indicators are present. The data point is not located in a wetland.	

### VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u><i>Prosopis glandulosa</i></u>	40	Y	FACU	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC (excluding FAC-): <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
40 = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				
1. <u>None</u>				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
2. _____				
3. _____				
4. _____				
5. _____				
0 = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )				
1. <u><i>Cynodon dactylon</i></u>	85	Y	FACU	<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u><i>Dichanthium annulatum</i></u>	15	N	UPL	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
100 = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. <u>None</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
2. _____				
0 = Total Cover				
% Bare Ground in Herb Stratum <u>0</u>				
Remarks: The vegetative community did not pass the dominance test.				

**SOIL**

Sampling Point: WDP 46

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

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-18	10YR 4/2	100	none				sandy clay loam	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators: (Applicable to all LRRs, unless otherwise noted.)**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5) (LRR F)
- 1 cm Muck (A9) (LRR F, G, H)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- 2.5 cm Mucky Peat or Peat (S2) (LRR G, H)
- 5 cm Mucky Peat or Peat (S3) (LRR F)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Loamy Mucky Mineral (F1)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)
- High Plains Depressions (F16) (MLRA 72 & 73 of LRR H)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 1 cm Muck (A9) (LRR I, J)
- Coast Prairie Redox (A16) (LRR F, G, H)
- Dark Surface (S7) (LRR G)
- High Plains Depressions (F16) (LRR H outside of MLRA 72 & 73)
- Reduced Vertic (F18)
- Red Parent Material (TF2)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

**Restrictive Layer (if present):**

Type: none  
 Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes \_\_\_\_\_ No

**Remarks:**

No hydric soil indicators are present.

**HYDROLOGY**

**Wetland Hydrology Indicators:**

Primary Indicators (minimum of one required; check all that apply)

- Surface Water (A1)
- High Water Table (A2)
- Saturation (A3)
- Water Marks (B1)
- Sediment Deposits (B2)
- Drift Deposits (B3)
- Algal Mat or Crust (B4)
- Iron Deposits (B5)
- Inundation Visible on Aerial Imagery (B7)
- Water-Stained Leaves (B9)
- Salt Crust (B11)
- Aquatic Invertebrates (B13)
- Hydrogen Sulfide Odor (C1)
- Dry-Season Water Table (C2)
- Oxidized Rhizospheres on Living Roots (C3) (where not tilled)
- Presence of Reduced Iron (C4)
- Thin Muck Surface (C7)
- Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- Surface Soil Cracks (B6)
- Sparsely Vegetated Concave Surface (B8)
- Drainage Patterns (B10)
- Oxidized Rhizospheres on Living Roots (C3) (where tilled)
- Crayfish Burrows (C8)
- Saturation Visible on Aerial Imagery (C9)
- Geomorphic Position (D2)
- FAC-Neutral Test (D5)
- Frost-Heave Hummocks (D7) (LRR F)

**Field Observations:**

Surface Water Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_  
 Saturation Present? (includes capillary fringe) Yes \_\_\_\_\_ No  Depth (inches): \_\_\_\_\_

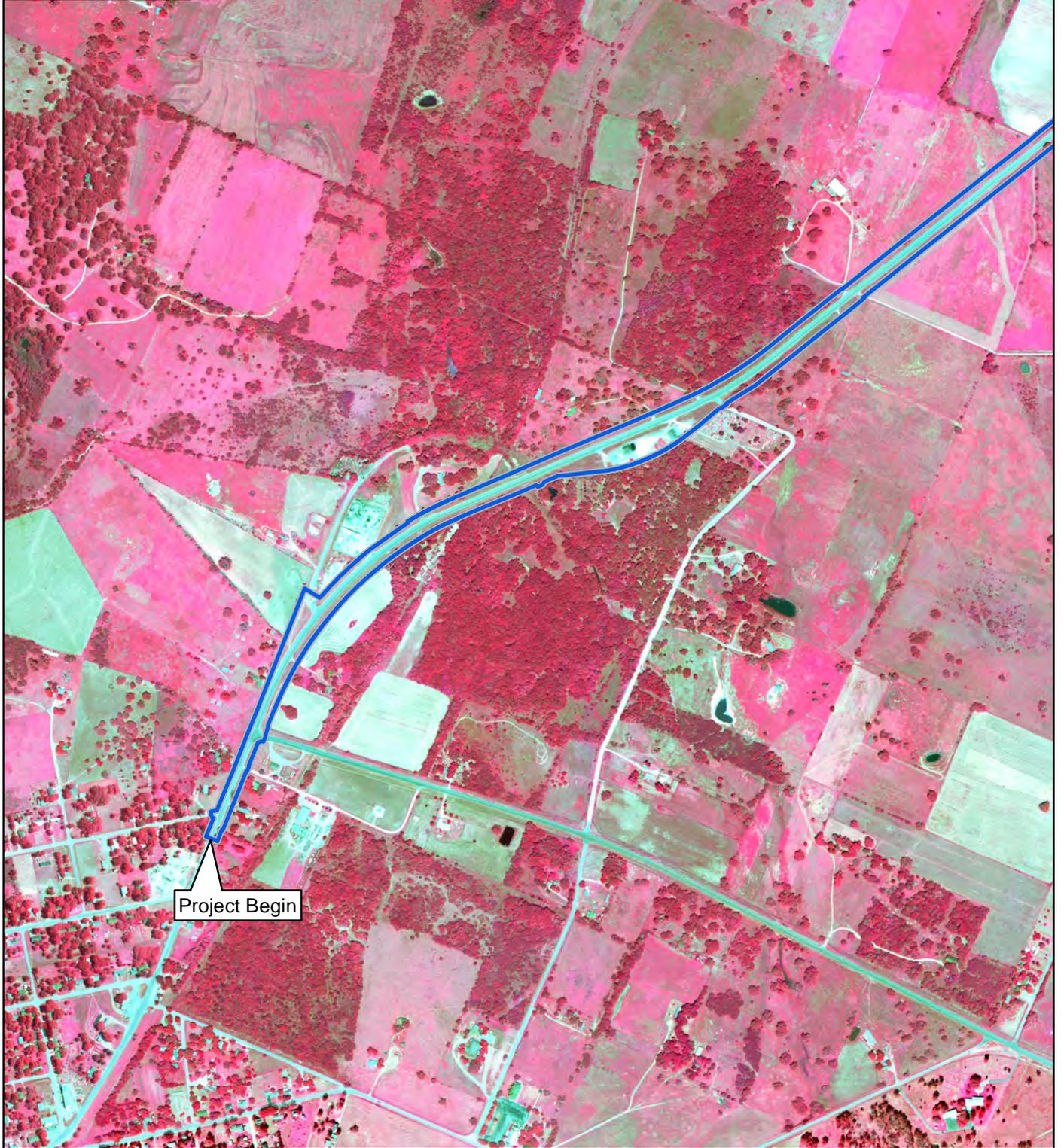
**Wetland Hydrology Present?** Yes \_\_\_\_\_ No

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

**Remarks:**

No hydrology indicators are present.

## **Attachment 3 – Historical Aerial Photographs**



Project Begin

2004 Color Infrared Aerial Imagery

Sheet 1 of 9

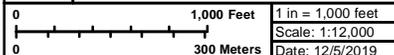
SH 72: FM 237 to US 87

Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)





2004 Color Infrared Aerial Imagery

Sheet 2 of 9

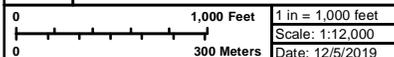
**SH 72: FM 237 to US 87**

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)





2004 Color Infrared Aerial Imagery

Sheet 3 of 9

SH 72: FM 237 to US 87

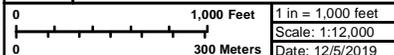
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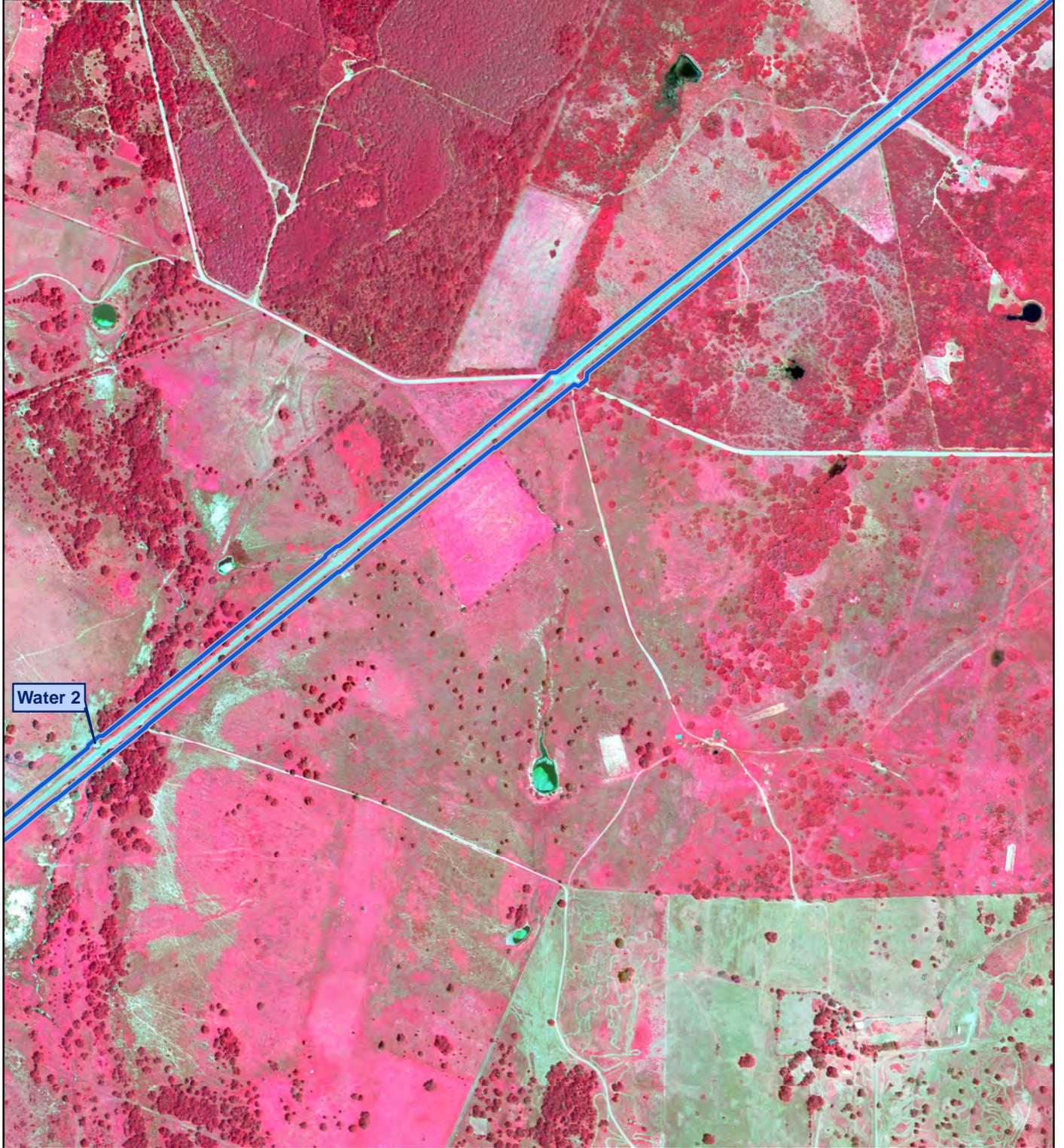
 Delineated Feature

Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)



CSJs: 0270-01-051, 0271-10-014





2004 Color Infrared Aerial Imagery

Sheet 4 of 9

**SH 72: FM 237 to US 87**

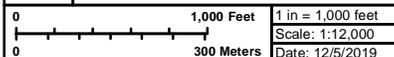
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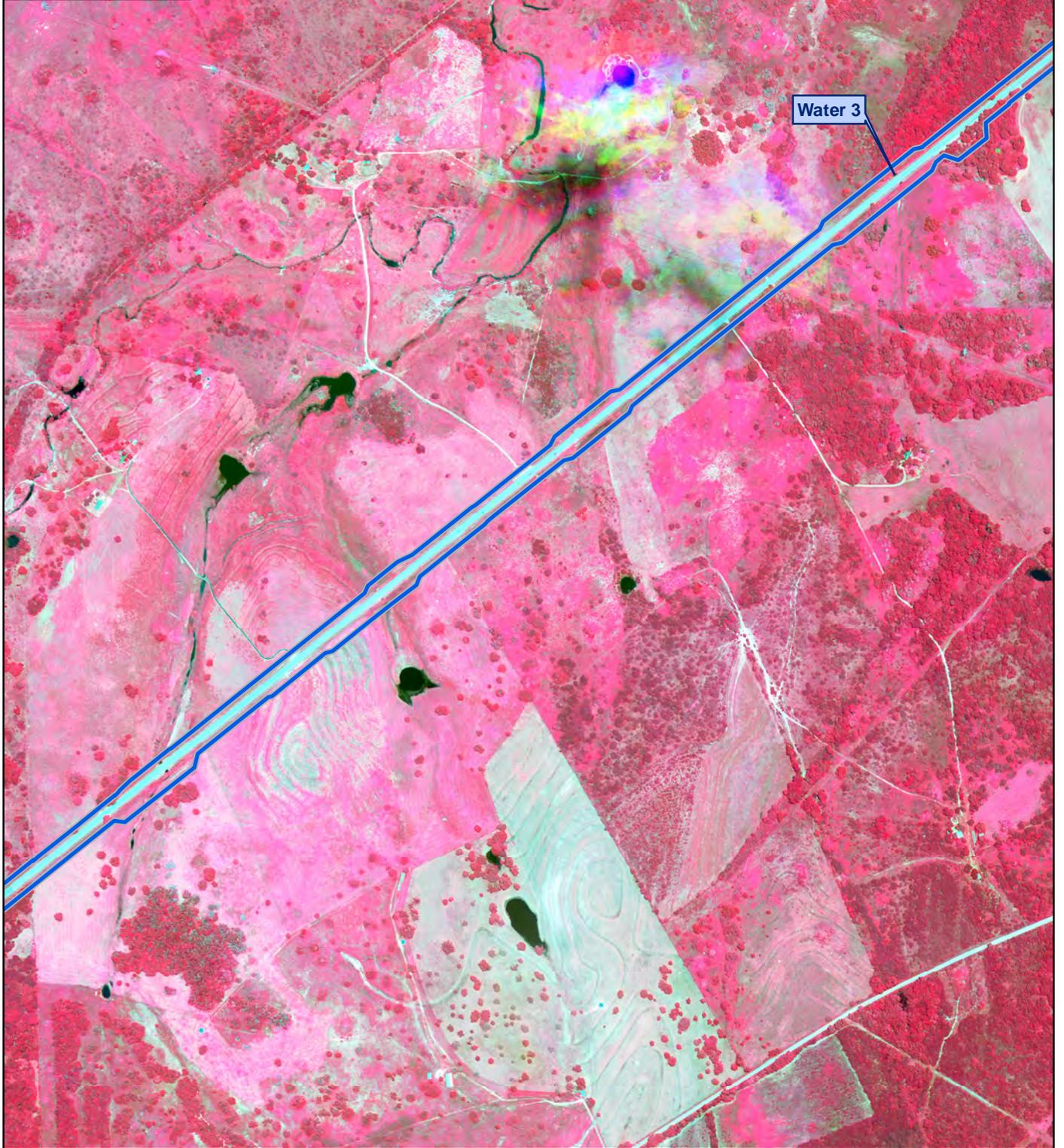
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Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)



CSJs: 0270-01-051, 0271-10-014





2004 Color Infrared Aerial Imagery

Sheet 5 of 9

SH 72: FM 237 to US 87

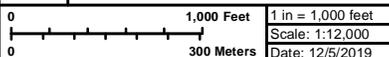
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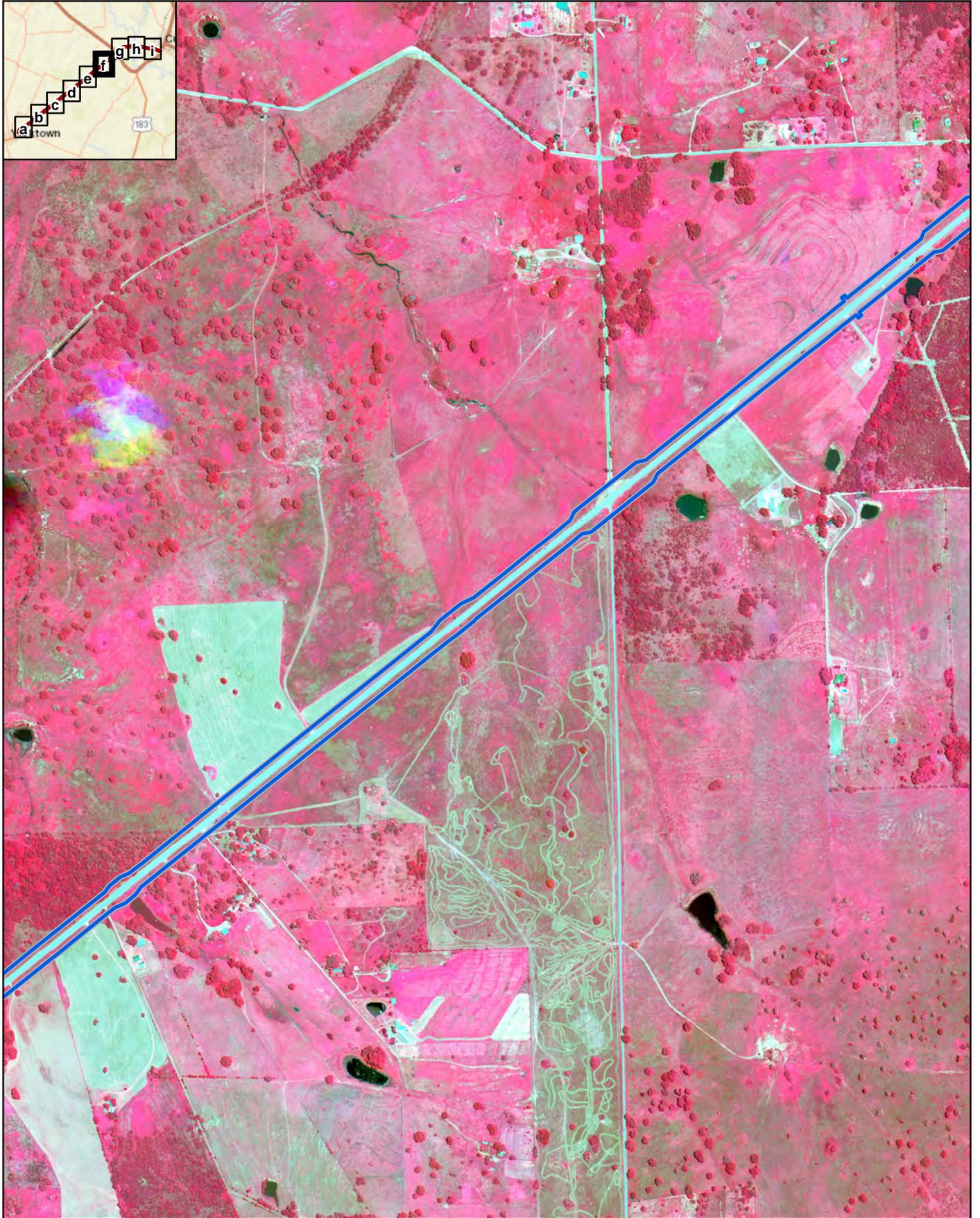
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Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)



CSJs: 0270-01-051, 0271-10-014





2004 Color Infrared Aerial Imagery

Sheet 6 of 9

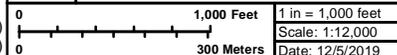
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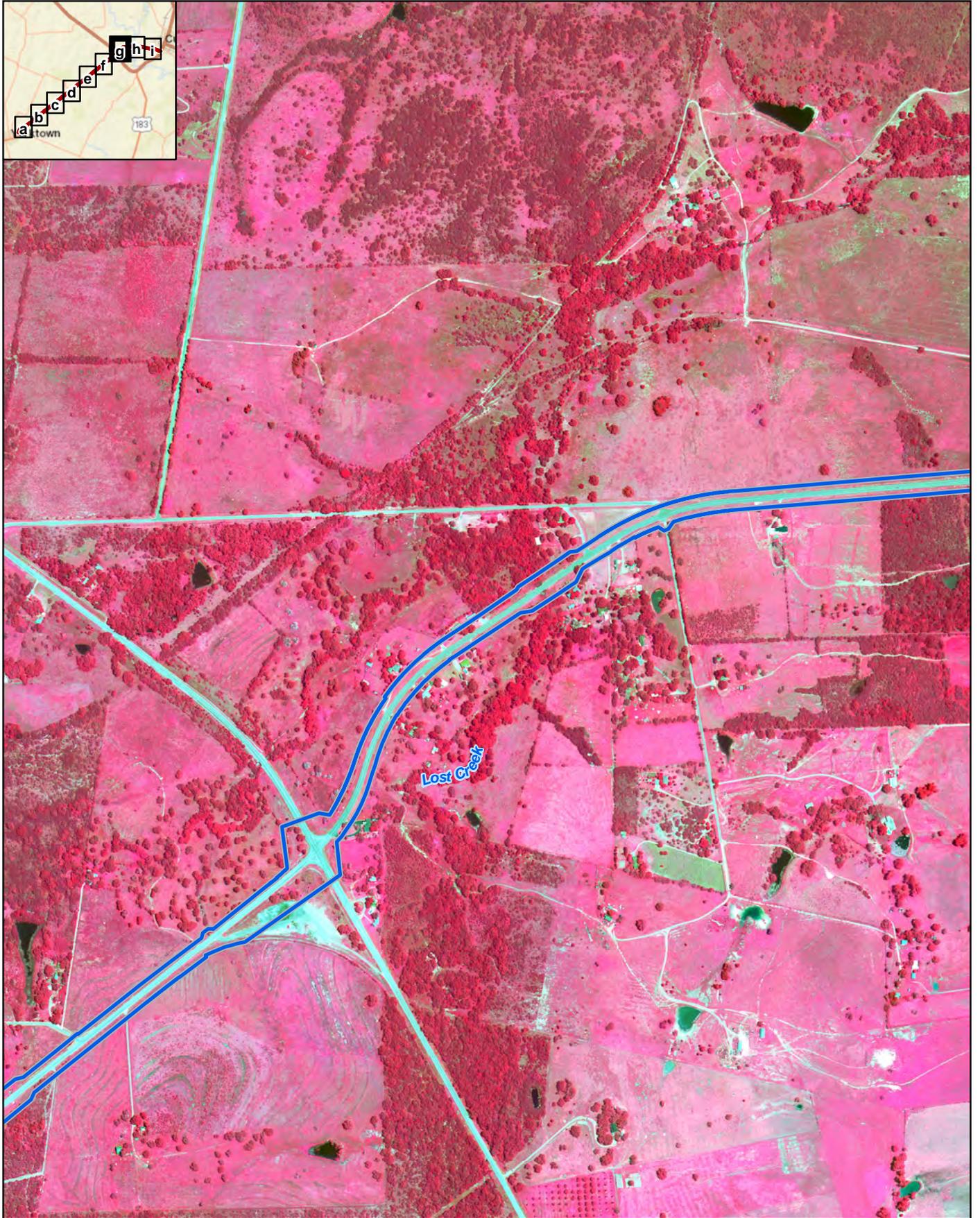
 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: NAIP (2004)





2004 Color Infrared Aerial Imagery

Sheet 7 of 9

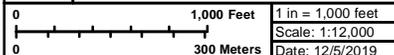
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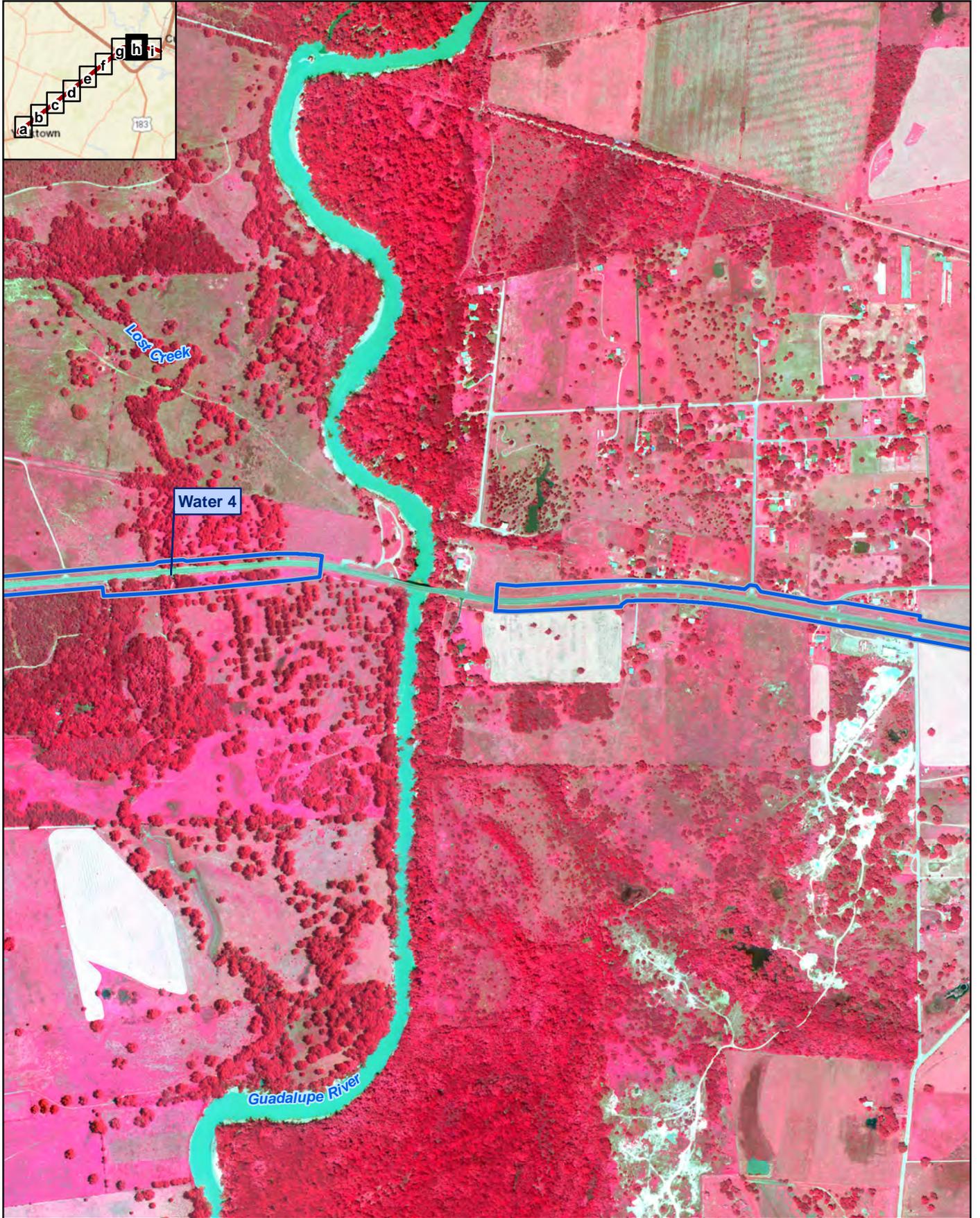
 Project Location



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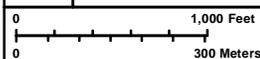


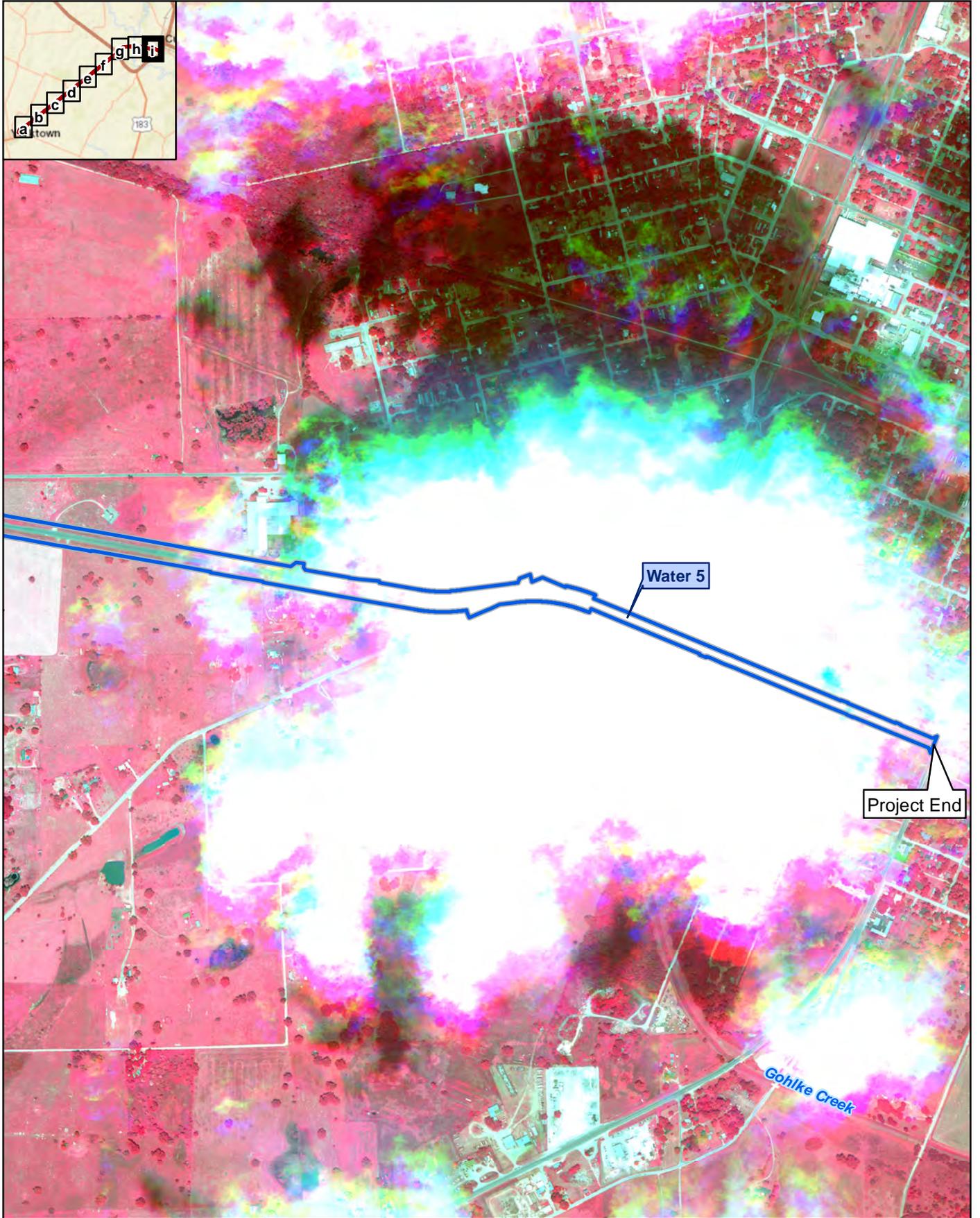
2004 Color Infrared Aerial Imagery

Sheet 8 of 9

SH 72: FM 237 to US 87

 Project Location  
 Delineated Feature  
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 Aerial Source: NAIP (2004)

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2004 Color Infrared Aerial Imagery

Sheet 9 of 9

SH 72: FM 237 to US 87

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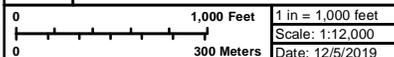
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Aerial Source: NAIP (2004)



CSJs: 0270-01-051, 0271-10-014





2010 Color Infrared Aerial Imagery

Sheet 1 of 9

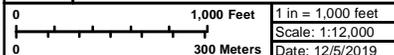
SH 72: FM 237 to US 87

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2010)





2010 Color Infrared Aerial Imagery

Sheet 2 of 9

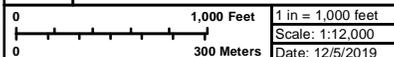
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 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2010)





2010 Color Infrared Aerial Imagery

Sheet 3 of 9

SH 72: FM 237 to US 87

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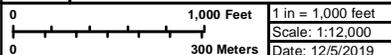
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Aerial Source: TOP (2010)



CSJs: 0270-01-051, 0271-10-014





2010 Color Infrared Aerial Imagery

Sheet 4 of 9

SH 72: FM 237 to US 87

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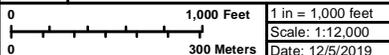
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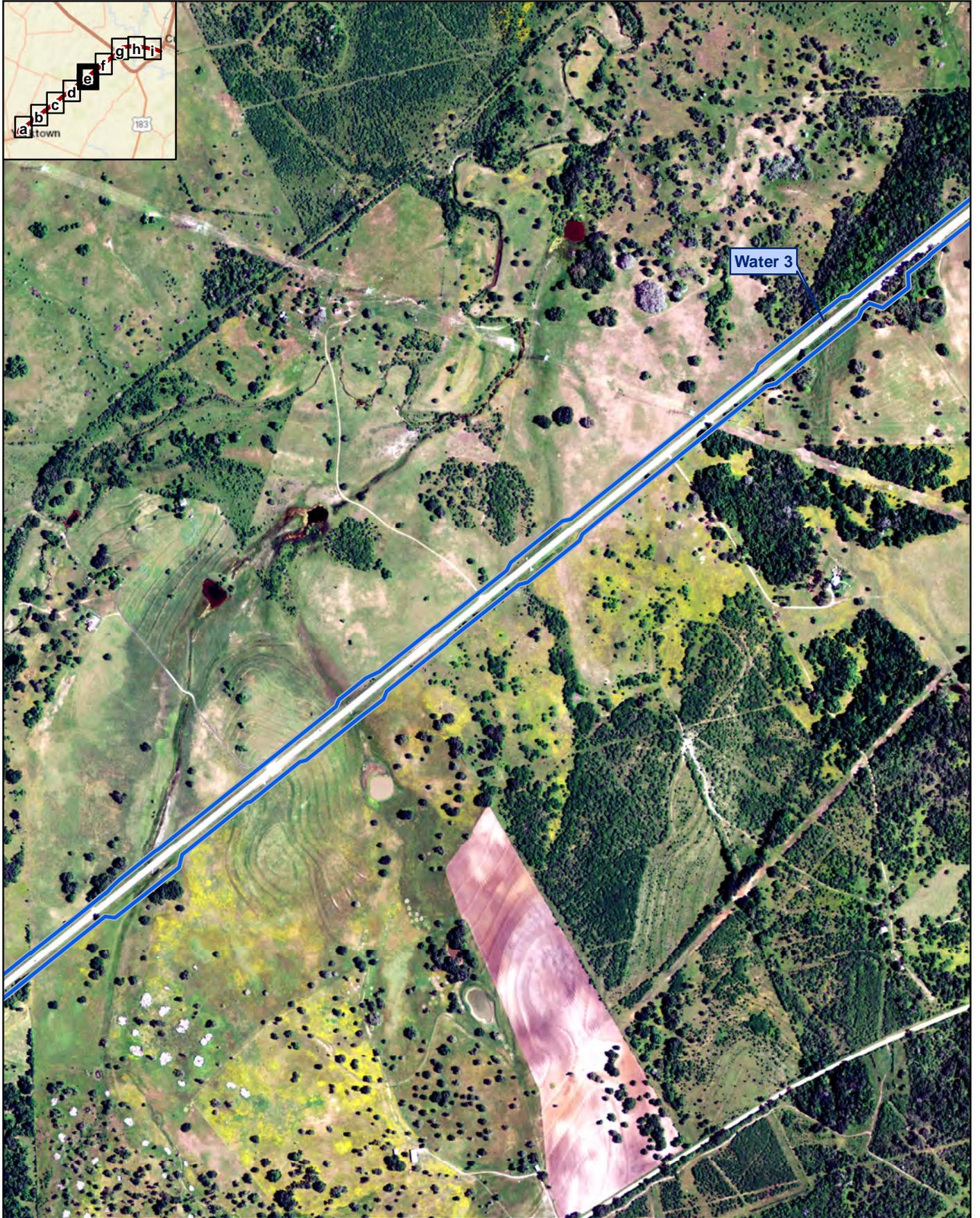
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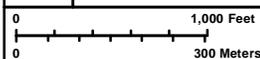


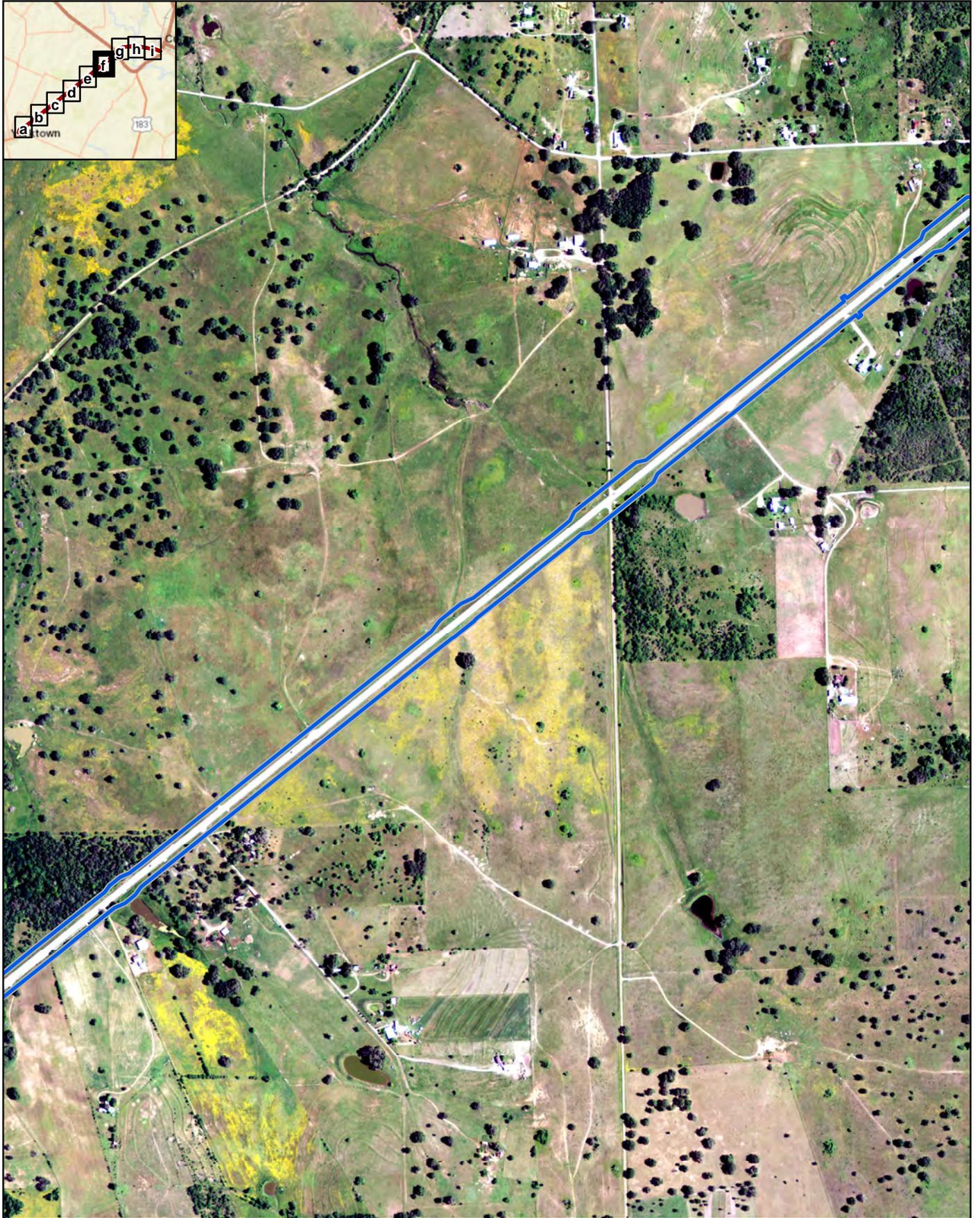
2010 Color Infrared Aerial Imagery

Sheet 5 of 9

SH 72: FM 237 to US 87

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 Aerial Source: TOP (2010)

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2010 Color Infrared Aerial Imagery

Sheet 6 of 9

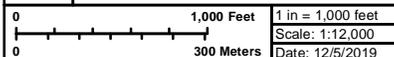
SH 72: FM 237 to US 87

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2010)





2010 Color Infrared Aerial Imagery

Sheet 7 of 9

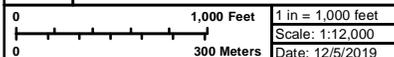
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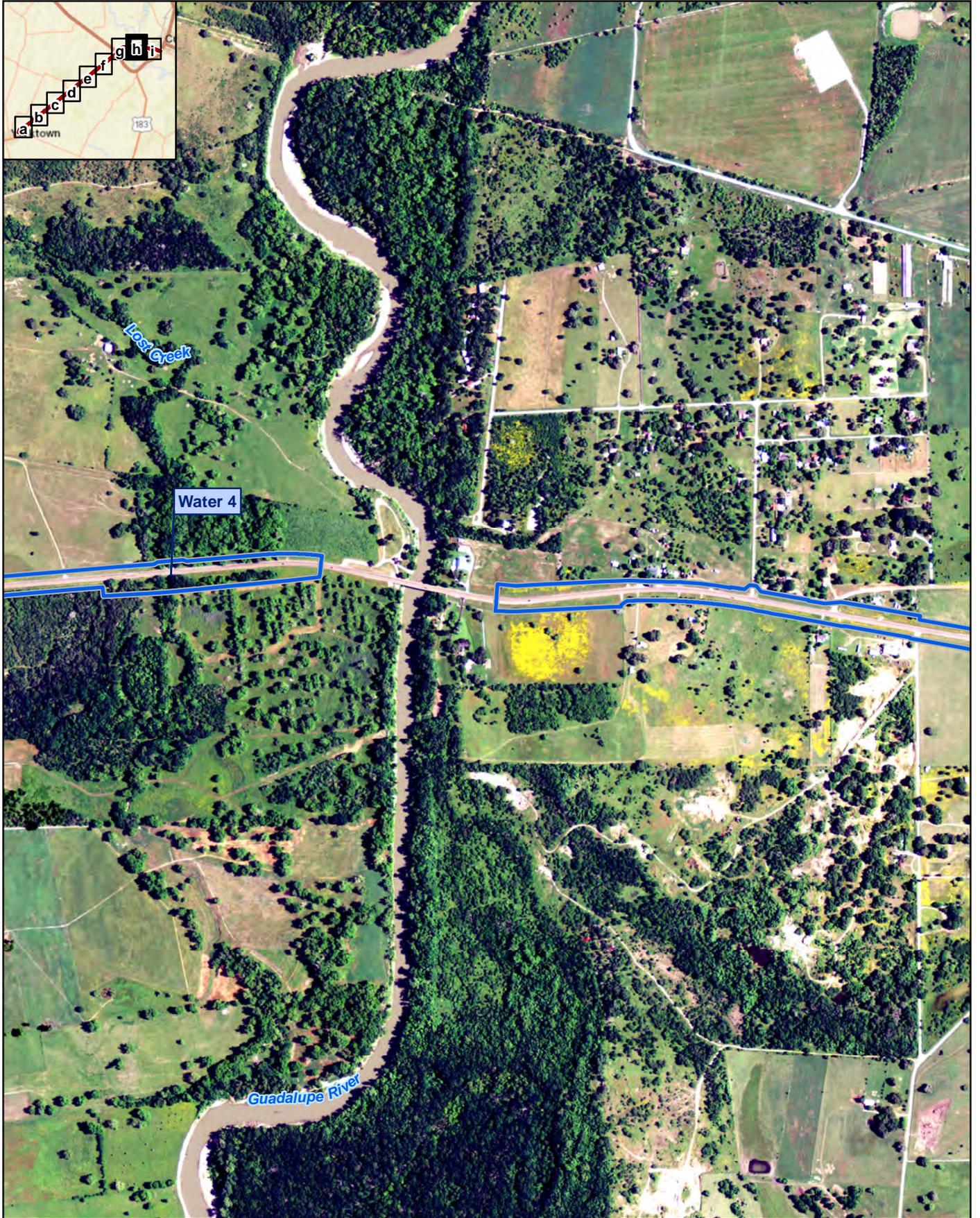
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Data Source: CMEC (2019)  
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2010 Color Infrared Aerial Imagery

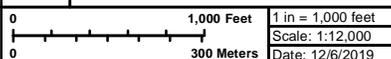
Sheet 8 of 9

SH 72: FM 237 to US 87

 Project Location  
 Delineated Feature  
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 Aerial Source: TOP (2010)



CSJs: 0270-01-051, 0271-10-014





2010 Color Infrared Aerial Imagery

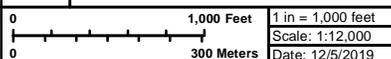
Sheet 9 of 9

SH 72: FM 237 to US 87

 Project Location  
 Delineated Feature  
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 Aerial Source: TOP (2010)



CSJs: 0270-01-051, 0271-10-014





2015 Color Infrared Aerial Imagery

Sheet 1 of 9

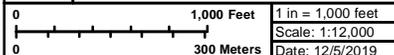
**SH 72: FM 237 to US 87**

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2015)





2015 Color Infrared Aerial Imagery

Sheet 2 of 9

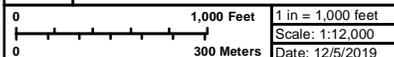
**SH 72: FM 237 to US 87**

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2015)





2015 Color Infrared Aerial Imagery

Sheet 3 of 9

SH 72: FM 237 to US 87

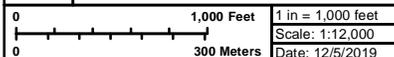
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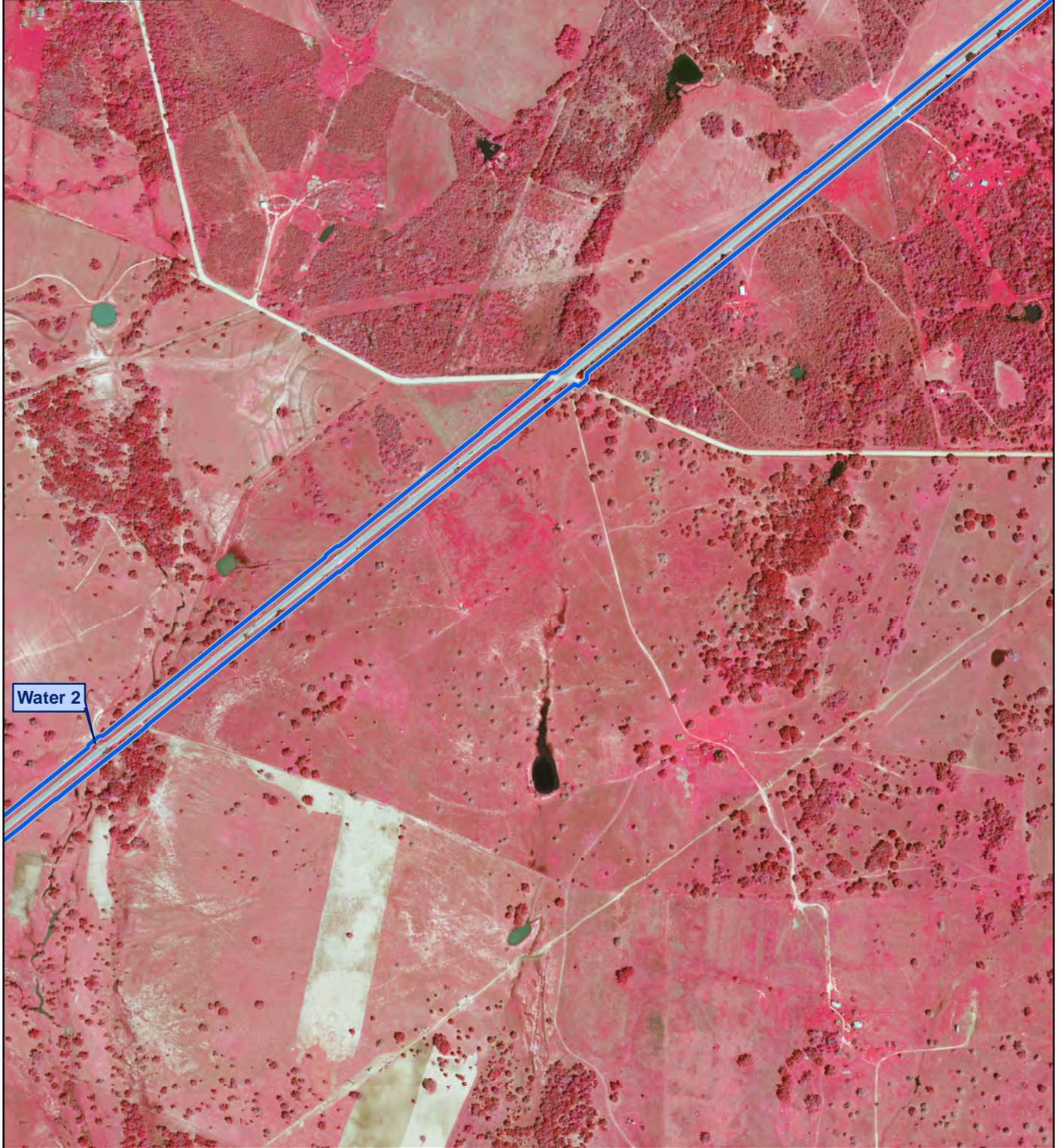
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Aerial Source: TOP (2015)



CSJs: 0270-01-051, 0271-10-014





2015 Color Infrared Aerial Imagery

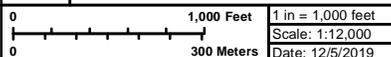
Sheet 4 of 9

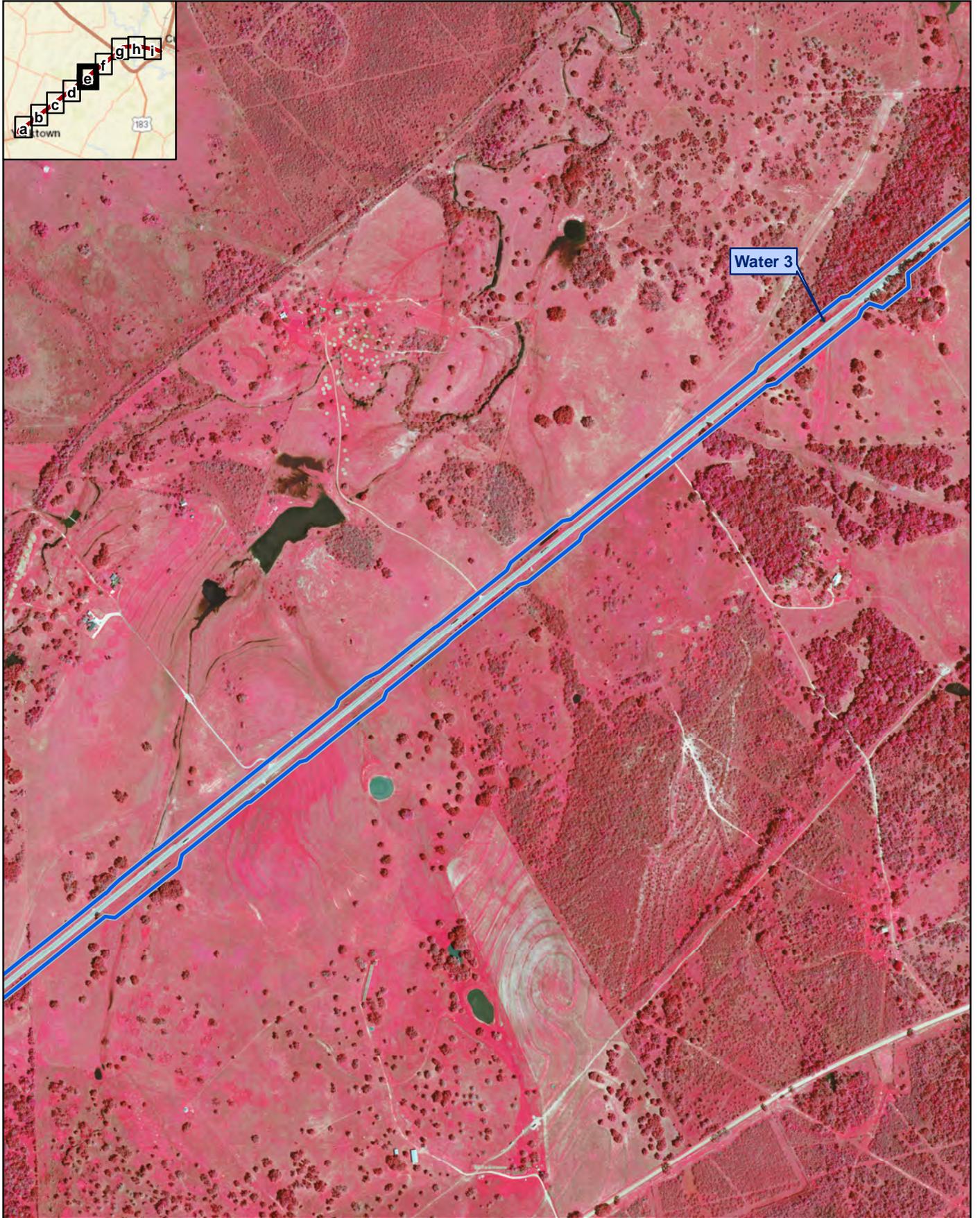
SH 72: FM 237 to US 87

 Project Location  
 Delineated Feature  
 Data Source: CMEC (2019)  
 Aerial Source: TOP (2015)



CSJs: 0270-01-051, 0271-10-014





2015 Color Infrared Aerial Imagery

Sheet 5 of 9

SH 72: FM 237 to US 87

 Project Location

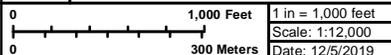
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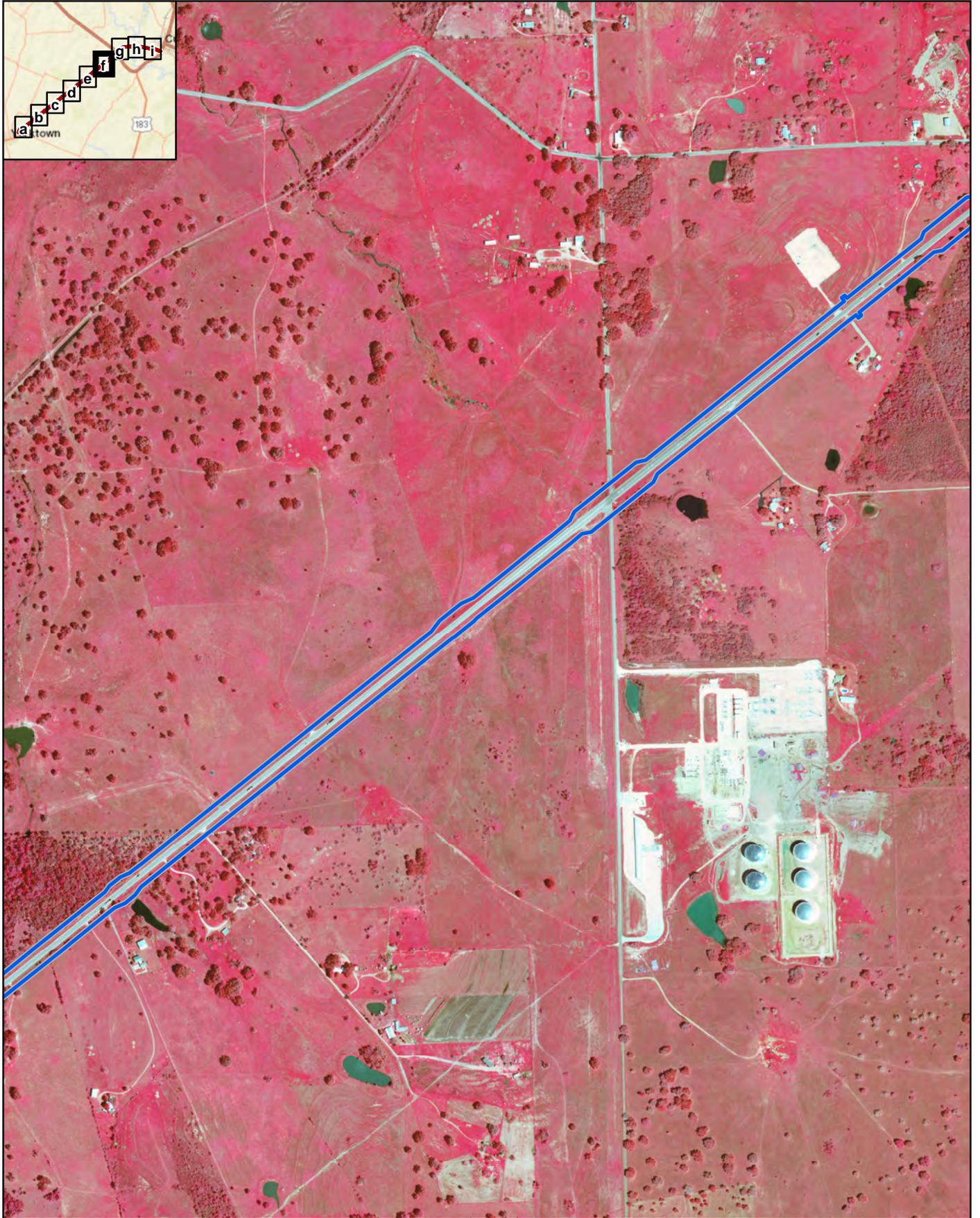
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CSJs: 0270-01-051, 0271-10-014





2015 Color Infrared Aerial Imagery

Sheet 6 of 9

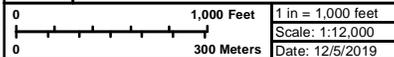
**SH 72: FM 237 to US 87**

 Project Location



CSJs: 0270-01-051, 0271-10-014

Data Source: CMEC (2019)  
Aerial Source: TOP (2015)





2015 Color Infrared Aerial Imagery

Sheet 7 of 9

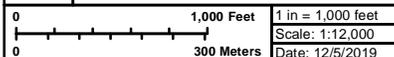
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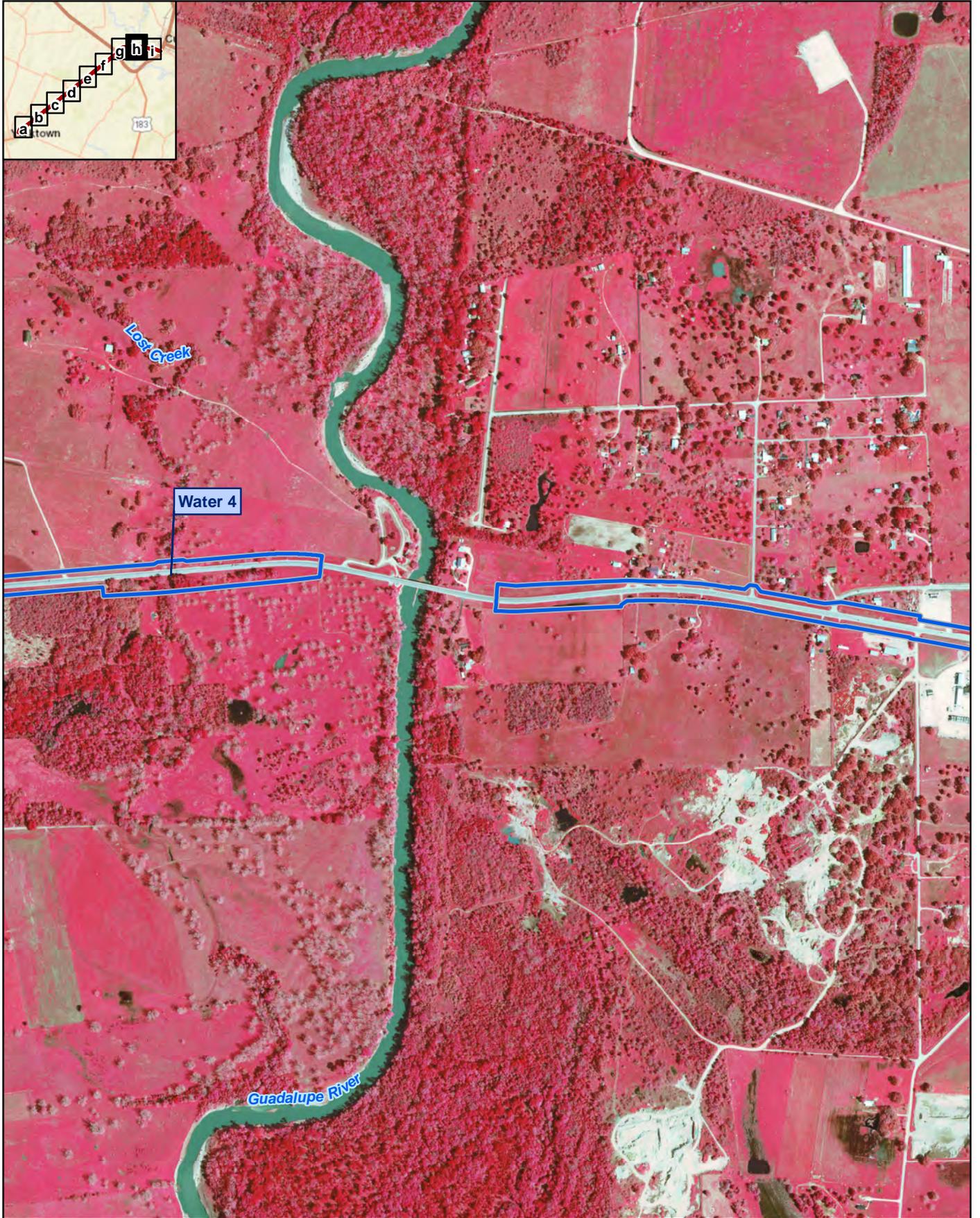
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2015 Color Infrared Aerial Imagery

Sheet 8 of 9

SH 72: FM 237 to US 87

 Project Location

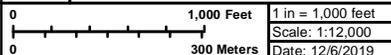
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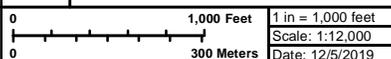
Sheet 9 of 9

SH 72: FM 237 to US 87

 Project Location  
 Delineated Feature  
 Data Source: CMEC (2019)  
 Aerial Source: TOP (2015)



CSJs: 0270-01-051, 0271-10-014



## Attachment 4 - Site Photographs



Photo No. 1 – View of western project terminus; viewing north.



Photo No. 2 – View of WDPO1 soils.



Photo No. 3 – View of WDPO1 (upland); viewing north.



Photo No. 4 – View of WDPO2 soils.



Photo No. 5 – View of WDPO2 (upland); viewing south.



Photo No. 6 – View of WDPO3 soils.



Photo No. 7 – View of WDP03 (upland); viewing east.



Photo No. 8 – View of WDP04 soils.



Photo No. 9 – View of WDP04 (upland); viewing east.



Photo No. 10 – View of WDP05 soils.



Photo No. 11 – View of WDP05 (upland); viewing south.



Photo No. 12 – View of WDP06 soils.



Photo No. 13 – View of WDP06 (upland);  
viewing north.



Photo No. 14 – Representative photo of culvert  
at NWI.



Photo No.15 – View of soils at WDP07.



Photo No. 16 – View of WDP07 (upland);  
viewing north.



Photo No. 17 – View of WDP08 soils.



Photo No. 18 – View of WDP08 (upland);  
viewing northwest.



Photo No. 19 – View of WDP09 soils.



Photo No. 20 – View of WDP09 (upland);  
viewing northeast.



Photo No. 21 – View of WDP10 soils.



Photo No. 22 – View of WDP10 (upland);  
viewing north.



Photo No. 23 – View of WDP11 soils.



Photo No. 24 – View of WDP11 (upland);  
viewing north.



Photo No. 25 – View of WDP12 soils.



Photo No. 26 – View of WDP12 (wetland);  
viewing north.



Photo No. 27 – View of WDP13 soils.



Photo No. 28 – View of WDP13 (upland);  
viewing northeast.



Photo No. 29 – View of Water 1; viewing north.



Photo No. 30 – View of Water 1; viewing south.



Photo No. 31- View of WDP14 (upland);  
viewing northeast.



Photo No. 32 - View of WDP15 soils.



Photo No. 33 - View of WDP15 (upland);  
viewing south.



Photo No. 34 - View of WDP16 soils.



Photo No. 35 - View of WDP16 (upland);  
viewing east.



Photo No. 36 - View of drainage near WDP16;  
viewing south.



Photo No. 37 – View of drainage near WDP16; viewing north.



Photo No. 38 – View of WDP17 soils.



Photo No. 39 – View of WDP17 (upland); viewing south.



Photo No. 40 – View of WDP18 soils.



Photo No. 41 – View of WDP18 (within Water 2); viewing south.



Photo No. 42 – View of Water 2; viewing south.



Photo No. 43 – View of Water 2; viewing north.



Photo No. 44 – View of WDP19 (upland);  
viewing south.



Photo No. 45 – View of drainage swale near  
Shiloh Creek; viewing north.



Photo No. 46 – View of culvert at swale; viewing  
southwest.



Photo No. 47 – View of WDP20 soils.



Photo No. 48 – View of WDP20 (upland);  
viewing south.



Photo No. 49 – View of WDP21 soils.



Photo No. 50 – View of WDP21 (upland);  
viewing south.



Photo No. 51 – View of WDP22 soils.



Photo No. 52 – View of WDP22 (upland);  
viewing south.



Photo No. 53 – View of WDP23 soils.



Photo No. 54 – View of WDP23 (upland);  
viewing north.



Photo No. 55 – View of WDP24 soils.



Photo No. 56 – View of WDP24 (upland);  
viewing north.



Photo No. 57 – View of WDP25 soils.



Photo No. 58 – View of WDP25 (upland);  
viewing northeast.



Photo No. 59 – View of WDP26 soils.



Photo No. 60 – View of WDP26 (upland);  
viewing north.



Photo No. 61 – View of WDP27 soils.



Photo No. 62 – View of WDP27 (within Water 3); viewing south.



Photo No. 63 – View of WDP28 soils.



Photo No. 64 – View of WDP28 soils.



Photo No. 65 – View of Water 3; viewing south.



Photo No. 66 – View of Water 3; viewing north.



Photo No. 67 – View of WDP29 soils.



Photo No. 68 – View of WDP29 (upland);  
viewing south.



Photo No. 69 –View of WDP30 soils.



Photo No. 70 – View of WDP30 (upland);  
viewing south.



Photo No. 71 – View of WDP31 soils.



Photo No. 72 – View of WDP31 (upland);  
viewing north.



Photo No. 73 – View of WDP32 soils.



Photo No. 74 – View of WDP32 (upland);  
viewing south.



Photo No. 75 – View of WDP33 soils.



Photo No. 76 – View of WDP33 (upland);  
viewing north.



Photo No. 77 – View of WDP34 soils.



Photo No. 78 – View of WDP34 (upland);  
viewing west.



Photo No. 79 – View of WDP35 soils.



Photo No. 80 – View of WDP35 (upland);  
viewing northwest.



Photo No. 81 – View of WDP36 soils.



Photo No. 82 – View of WDP36 (upland);  
viewing northwest.



Photo No. 83 –View of WDP 37 soils.



Photo No. 84 – View of WDP37 (upland);  
viewing northwest.



Photo No. 85 – View of WDP38 soils.



Photo No. 86 – View of WDP38 (upland);  
viewing northwest.



Photo No. 87 – View of WDP39 soils.



Photo No. 88 – View of WDP39 (upland);  
viewing southeast.



Photo No. 89 – View of WDP40 soils.



Photo No. 90 – View of WDP40 (within Water  
4); viewing north.



Photo No. 91 – View of WDP41 soils.



Photo No. 92 – View of WDP41 (upland) with Water 4 in the background; viewing west.



Photo No. 93 – View of WDP42 soils.



Photo No. 94 – View of WDP42 (upland); viewing south.



Photo No. 95 – View of WDP43 soils.



Photo No. 96 – View of WDP43 (upland); viewing north.



Photo No. 97 – View of WDP44 soils.



Photo No. 98 – View of WDP44 (upland);  
viewing north.



Photo No. 99 – View of WDP45 soils.



Photo No.100 – View of WDP45 (upland);  
viewing south.



Photo No. 101 – View of Water 5; viewing  
south.



Photo No. 102 – View of Water 5; viewing north.



Photo No. 103 – View of WDP46 soils.



Photo No. 104 – View of WDP46 (upland);  
viewing south.



Photo No. 105 – View of eastern project  
terminus; viewing west.