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Cultural Resources Survey of the Sparks Drive Valley Storage Project, City of Cleburne, Johnson County, Texas

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CULTURAL RESOURCES REPORT

CULTURAL RESOURCES SURVEY OF THE SPARKS DRIVE VALLEY STORAGE PROJECT, CITY OF CLEBURNE, JOHNSON COUNTY, TEXAS

Prepared for:
Texas Historical Commission
Texas Antiquities Permit #8993

On Behalf of:

City of Cleburne

&

Childress Engineers, Inc.

October 2019

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CULTURAL RESOURCES SURVEY OF THE SPARKS DRIVE VALLEY STORAGE PROJECT, CITY OF CLEBURNE, JOHNSON COUNTY, TEXAS

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Cultural Resources Report
October 2019

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ABSTRACT

This report documents the substantive findings and management recommendations of a cultural resources survey conducted by Integrated Environmental Solutions, LLC (IES) for the Sparks Drive Valley Storage Project in the City of Cleburne, Johnson County, Texas. The project area or Area of Potential Effects (APE) encompasses approximately 14 acres (ac). As the project will require compliance with Section 404 of the Clean Water Act through the use of a Nationwide Permit from the U.S. Army Corps of Engineers (USACE), portions of the project will be subjected to the provisions of the National Historic Preservation Act (NHPA) of 1966, as amended. Additionally, the City of Cleburne is a political subdivision of the State of Texas. Therefore, the project is also subject to the provisions of the Antiquities Code of Texas (ACT).

The goal of this survey was to locate, identify, and document any cultural resources, which included architectural and archeological resources, that could be adversely affected by the proposed development, and to provide an evaluation of the eligibility potential of each identified resource for listing in the National Register of Historic Places (NRHP) or for designation as a State Antiquities Landmark (SAL). This cultural resources survey was conducted on 01 August 2019. All work conformed to 13 Texas Administrative Code 26, which outlines the regulations for implementing the ACT, and was conducted under Antiquities Permit No. 8993.

During the survey, no cultural resources were documented within the 14-ac APE. No artifacts were collected during this survey. All field and project-related records will be temporarily stored at the IES McKinney office and permanently curated at the Center for Archaeological Research at The University of Texas at San Antonio. Based on the results of this survey, no additional cultural resources investigations or evaluation of the APE is recommended. It is the recommendation of IES that the State Historic Preservation Officer, represented by the Texas Historical Commission, concur with these findings. However, if any cultural resources are encountered during construction, the operators should cease work immediately in that area and contact the project cultural resources consultant to initiate coordination with the THC and USACE prior to resuming any construction activities in the vicinity of the inadvertent discovery.

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TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

APPENDICES

CHAPTER 1: PROJECT DESCRIPTION

1.1 Introduction

This report presents the results of a cultural resources survey conducted by Integrated Environmental Solutions, LLC (IES), under subcontract to Childress Engineers, Inc., on behalf of the City of Cleburne, for the proposed Sparks Drive Valley Storage Project. The purpose of this investigation was to conduct an inventory of cultural resources (as defined by Code of Federal Regulations, Title 36, Section 800.4 [36 CFR 800.4]) present within the proposed project area or Area of Potential Effects (APE) and to evaluate identified resources for their eligibility for inclusion in the National Register of Historic Places (NRHP), as per Section 106 (36 CFR 800) of the National Historic Preservation Act (NHPA) of 1966, as amended, or for designation as State Antiquities Landmarks (SAL) under the Antiquities Code of Texas (ACT; Texas Natural Resources Code, Title 9, Chapter 191 [9 TNRC 191]) and associated state regulations (Texas Administrative Code, Title 13, Chapter 26 [13 TAC 26]). A description of the proposed APE, environmental and historical contexts, field and analytical methods, and results of the investigations are provided in this document. This report was prepared in accordance with the Council of Texas Archeologists (CTA 1992) guidelines.

1.2 Project Description

The proposed project pertains to the construction of a borrow and valley storage area along the proposed Sparks Drive extension, east of the intersection with Chisholm Trail Parkway, in the City of Cleburne, Johnson County, Texas (**Figures 1.1** and **1.2**). The proposed Sparks Drive corridor was previously surveyed by IES in 2017 under Antiquities Permit No. 8126. The proposed valley storage area, which will serve to compensate for fill placed within a Johnson County Soil and Water Conservation District flowage easement during construction of the roadway. This requirement had not been identified when the 2017 survey was conducted.

1.3 Regulatory Framework

1.3.1 *Antiquities Code of Texas*

As the City of Cleburne is a political subdivision of the State of Texas, it is required to comply with the ACT. The ACT requires that the Texas Historical Commission (THC) staff review any action by a state agency or a state political subdivision that has the potential to disturb historic and archeological sites on public land. Public land is defined as property under the control of a subsidiary of the state, which includes permanent and temporary easements on private property. Examples of projects that require review include reservoirs constructed by river authorities and water districts, construction of recreational parks or the expansion of existing facilitates by city governments, energy exploration by private companies on public land, and construction by a city or county government that exceeds 5 acres (ac) or 5,000 cubic yards of soil disturbance. The ACT also requires THC review any project less than the thresholds mentioned above that requires subsurface archeological investigations to determine the presence or absence of archeological materials on public land.

1.3.2 *Section 106 of the National Historic Preservation Act*

The proposed project will require a Nationwide Permit (NWP) from the U.S. Army Corps of Engineers (USACE) to maintain compliance with Section 404 of the Clean Water Act (CWA). Therefore, portions of the project will be subject to the provisions of the NHPA of 1966, as amended. The NHPA (54 U.S. Code [U.S.C.] 300101 *et seq*.), specifically Section 106 of the NHPA (54 U.S.C. 306108) requires the State Historic Preservation Officer (SHPO), an official appointed in each state or territory, to administer and coordinate historic preservation activities, and to review and comment on all actions licensed by the federal government that will have an effect on properties listed in the NRHP, or eligible for such listing.

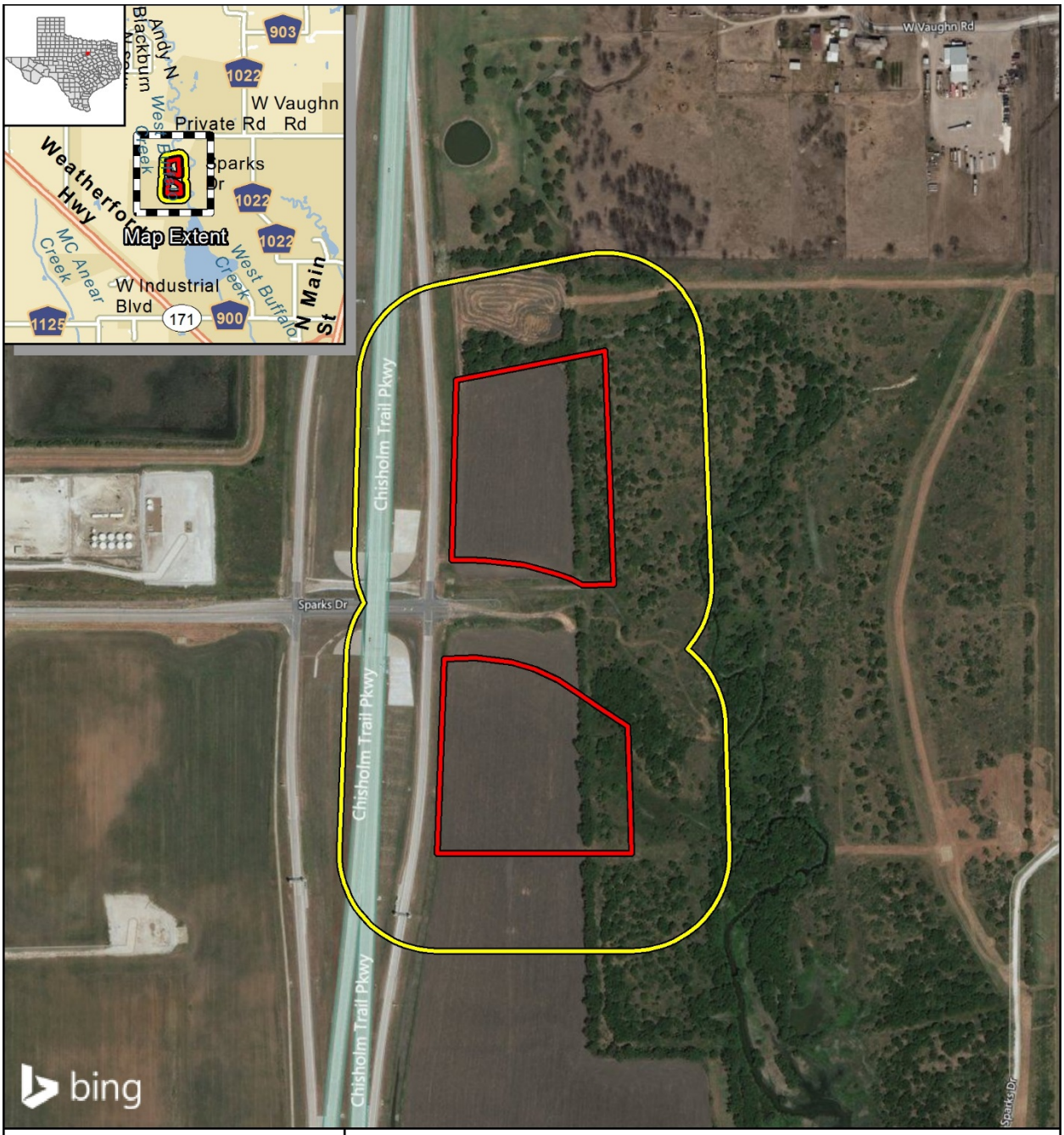

Figure 1.1
General Location Map

Area of Potential Effects - Direct
Area of Potential Effects - Indirect

N

1 inch = 500 ft
0 500 1,000 ft

County: Johnson
State: Texas
Date map created: 7/18/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.5 Streetmap
IES Project Ref: 04.266.003

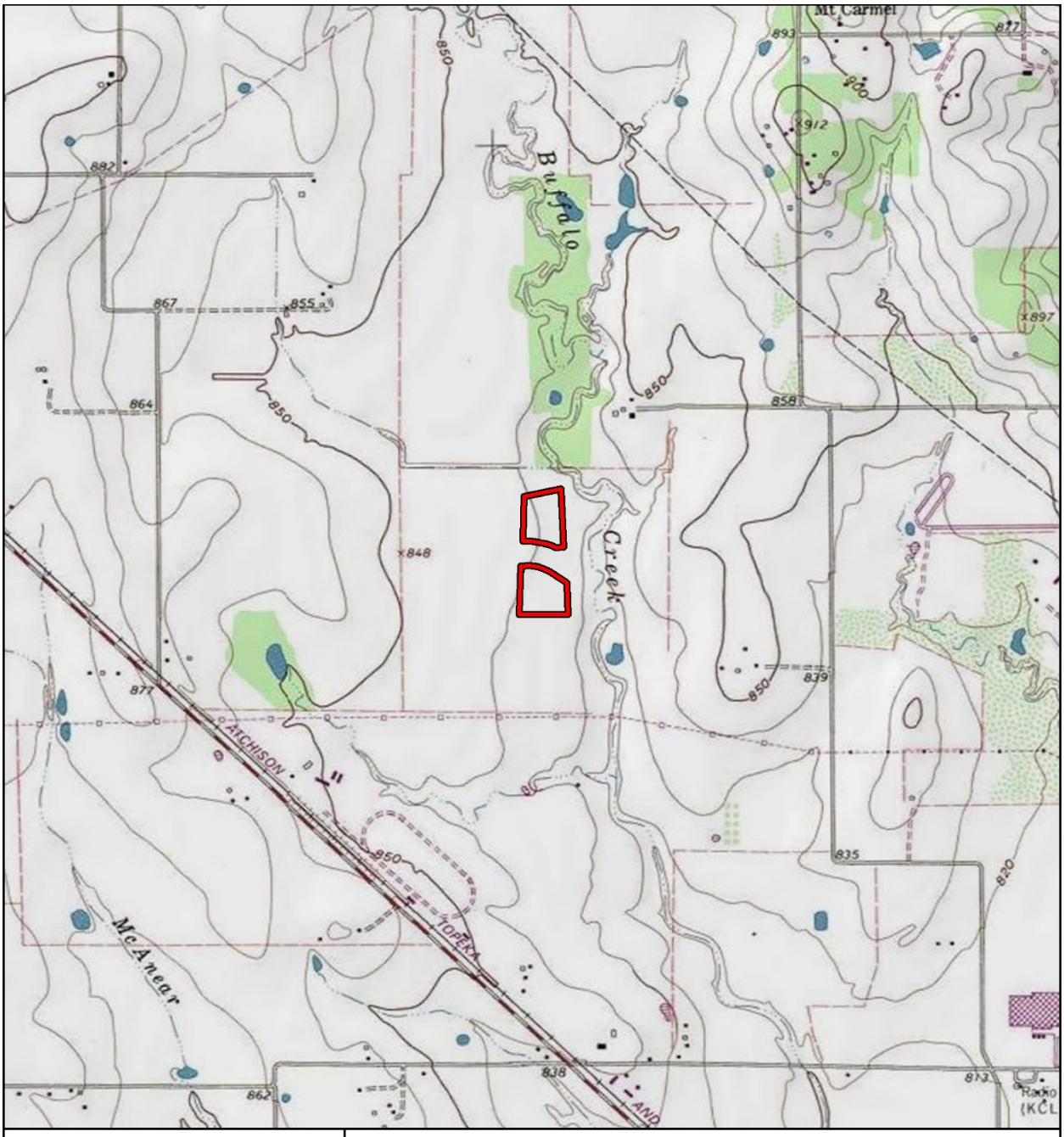

Figure 1.2
Topographic Setting

County: Johnson
State: Texas
Date map created: 7/18/2019
Source: USGS Topographic Map
7.5' Quadrangle
Joshua, 1979
IES Project Ref: 04.266.003

1.4 Area of Potential Effects

1.4.1 *Direct APE*

The APE encompasses approximately 14 ac adjacent the proposed extension of Sparks Drive, east of Chisolm Trail Parkway, in the City of Cleburne. The proposed project pertains to the construction of a valley storage area near West Buffalo Creek for the extension of Sparks Drive. Although design plans for the proposed project are in the early stage of development, potential subsurface impacts anticipated for the project will include excavation, grading, and contouring of the ground surface, as well as the installation of culverts, outfalls, or other drainage improvements. Currently, depths of impacts associated with the proposed project are anticipated to range between 0 to 3 feet (ft).

1.4.2 *Indirect APE*

As the project will require federal permitting from the USACE, an assessment of the indirect effects will be required within areas of USACE jurisdiction to satisfy Section 106 of the NHPA requirements. Potential indirect effects of the proposed project are related to the visual impacts on historic-age (i.e., 50 years old or greater) buildings and structures in the vicinity. To account for these potential indirect effects, a 100-ft-wide indirect effects APE will be evaluated surrounding the direct APE.

1.5 Administrative Information

Sponsor: City of Cleburne
Review Agency: THC; USACE
Principal Investigator: Christopher Goodmaster, MA, RPA
IES Project Number: 04.266.003
Days of Field Work: 01 August 2019
Area Surveyed: 14 ac
Resources Recommended Eligible for NRHP Under 36 Code of Federal Regulations (CFR) 60.4: None
Resources Recommended Eligible for SAL Under 13 TAC 26: None
Resources Recommended Not Eligible for NRHP Under 36 CFR 60.4: None
Resources Recommended Not Eligible for SAL Under 13 TAC 26: None
Curation Facility: No artifacts were collected. Field notes and all project-related records will be temporarily stored at the IES office in McKinney and permanently curated at the Center for Archaeological Research (CAR) at The University of Texas at San Antonio (UTSA).

CHAPTER 2: ENVIRONMENTAL BACKGROUND

2.1 Environmental Setting

2.1.1 *Climate*

Johnson County lies in the north-central part of the State of Texas. Annual rainfall precipitation is approximately 32 inches (in). Approximately 60 percent of the rainfall occurs between April and September. The subtropical region tends to have a relatively mild year-round temperature with the occasional exceedingly hot and cold periods (Estaville and Earl 2008).

2.1.2 *Topographic Setting, Geology, and Soils*

The Joshua 7.5-minute U.S. Geological Survey (USGS) topographic quadrangle map illustrates that the APE is located along an east-facing flank of a slightly sloping upland landform adjacent to West Buffalo Creek (*see* **Figure 1.2**). A single, unnamed tributary is located on the west side of West Buffalo Creek, which originates approximately 210 ft north of the APE. A narrow floodplain surrounds West Buffalo Creek, which flows in a general north-to-south orientation along the eastern boundary of the APE and confluences with the Nolan River approximately 9 miles (mi) south of the APE. Downstream from the APE, West Buffalo Creek is impounded and forms Marti Reservoir. At full capacity, the upper reaches of this lake extend north of the APE.

The APE is located within an environmental interface, or ecotone, between the Eastern Cross Timbers and the Grand Prairie ecoregions. The Eastern Cross Timbers ecoregion occurs on a narrow band of Upper Cretaceous sandstone the supports oak dominated woodlands between the Blackland Prairie and the Grand Prairie. The Grand Prairie is a region underlain by limestone between the Eastern Cross Timbers and the Western Cross Timbers. Before extensive settlement, the Grand Prairie was characterized by open, undulating plains with meandering streams dominated by tall and short grasses. Forested areas were limited to riparian corridors along streams and river valleys. Although a significant portion of the Grand Prairie has been converted to cropland or improved pasture, the region supports some of the largest native grasslands in Texas (Griffith et al. 2007). Soils within the APE are underlain by Cretaceous-age Grayson Marl and Main Street Limestone, undivided (Kgm), which is comprised of interbedded marl and limestone (McGowen et al. 1987; USGS 2019; **Figure 2.1**).

As shown by the *Soil Survey of Johnson County, Texas* (Coburn 1985), there are two soil map units within the APE (**Table 2.1**). The entire APE contains upland soils typical of *in situ* soil development in upland settings within the Eastern Cross Timbers and Grand Prairie ecoregions. Soil data was viewed from the U.S. Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Web Soil Survey (USDA 2019; **Figure 2.2**).

Table 2.1: Soils Located Within the APE

Soil Series Description	Approximate Percentage of the APE
SIA - Slidell clay, 0 to 1 percent slopes - This component is described as clay located on ridges. Depth to a root restrictive layer or bedrock is more than 80 in. The natural drainage class is moderately well drained.	84.1
SIB - Slidell clay, 1 to 3 percent slopes - This component is described as clay located on ridges. Depth to a root restrictive layer or bedrock is more than 80 in. The natural drainage class is moderately well drained.	15.9

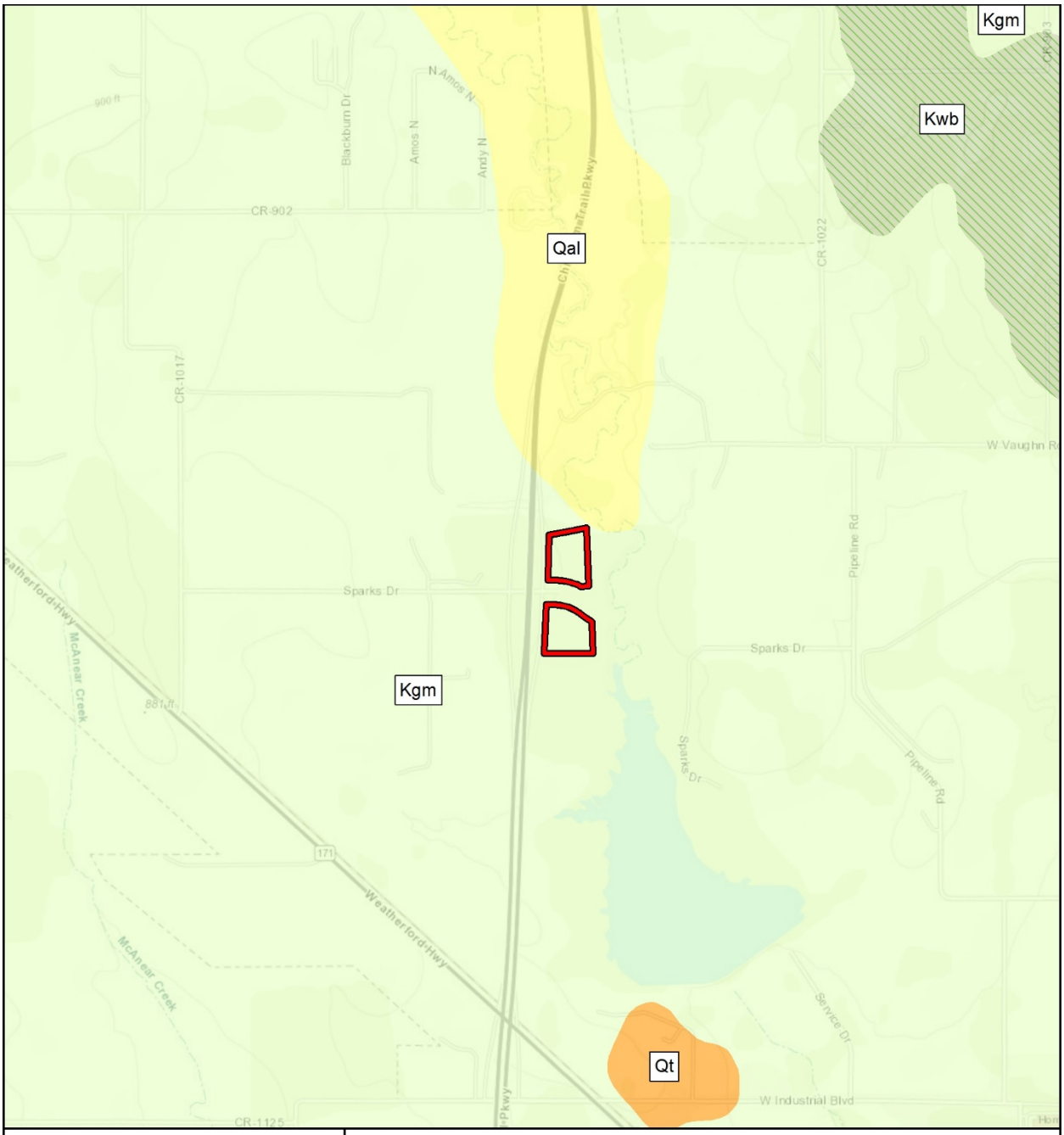

Figure 2.1
Geologic Setting

County: Johnson
State: Texas
Date map created: 7/18/2019
Source: TNRIS Geologic Atlas of Texas; Dallas Sheet
IES Project Ref: 04.266.003

Area of Potential Effects - Direct

Geologic Formation

Kgm - Grayson Marl and Main Street Limestone
Kwb - Woodbine Formation
Qal - Alluvium
Qt - Terrace deposits

N

1 inch = 2,000 ft

0 2,000 4,000 ft

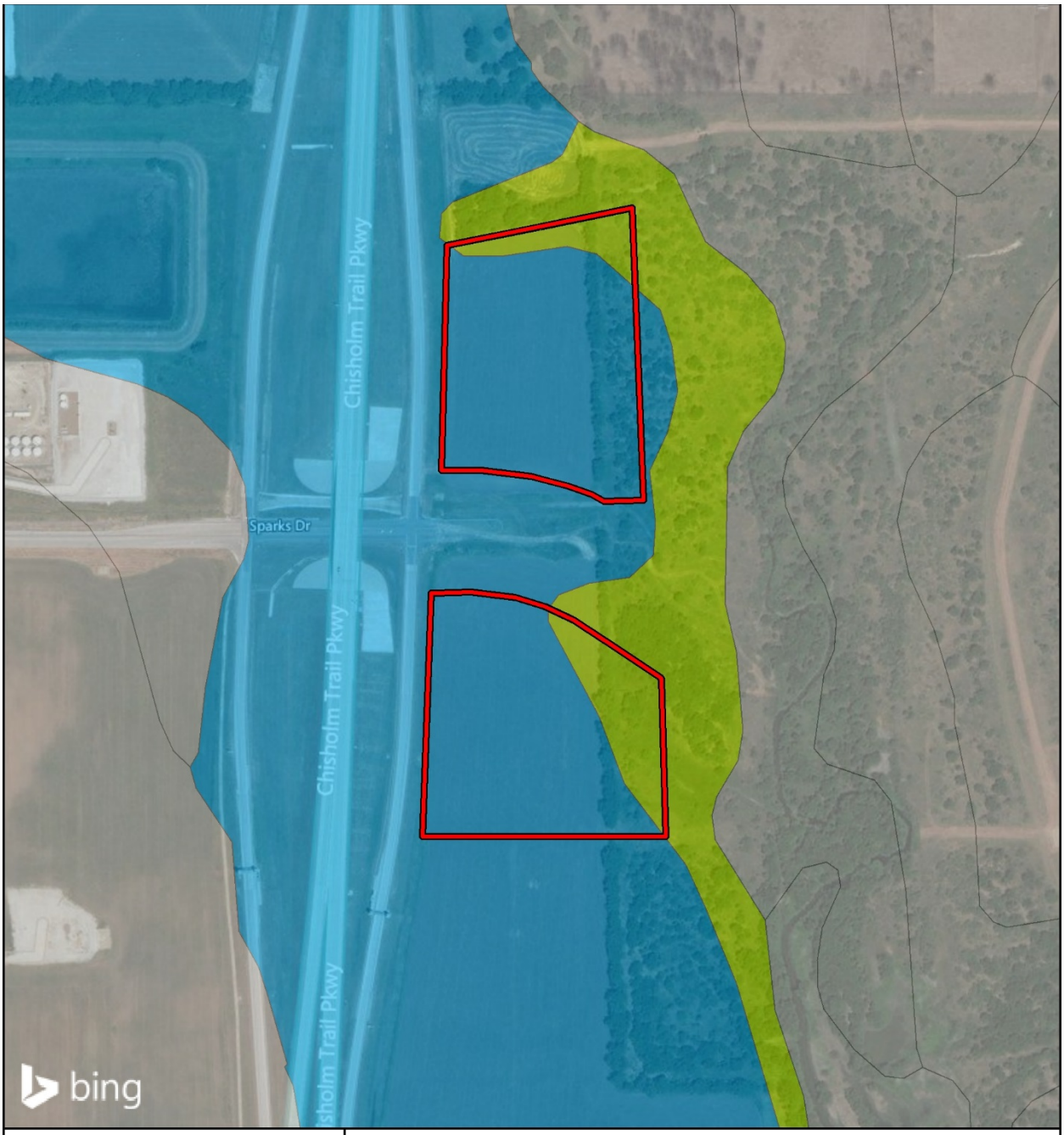

Figure 2.2
Soil Map Units Located Within and Adjacent to the APE

County: Johnson
State: Texas
Date map created: 7/18/2019
Source: 2007 USDA
NRCS Digital Soils Database
IES Project Ref: 04.266.003

Area of Potential Effects - Direct

Soil Description

SIA - Slidell clay, 0 to 1 percent slopes

SIB - Slidell clay, 1 to 3 percent slopes

Other Values

N

1 inch = 400 ft

0 400 800 ft

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CHAPTER 3: CULTURAL BACKGROUND

3.1 Previous Investigations

The Texas Archeological Sites Atlas (TASA) and Texas Historic Sites Atlas (THSA) databases, maintained by the THC, indicate that there are no previously recorded archeological sites, National Register Historic properties, historical markers, or cemeteries located within the APE (TASA 2019; THSA 2019). According to TASA records, one survey was previously conducted within the APE by the USDA Soil Conservation Service (SCS) in 1981. The TASA indicates the survey encompassed most of the APE. However, based on agency coordination and background research, it was determined that this survey likely did not adequately assess the current APE or meet current professional survey standards. In addition, four cultural resources surveys have been previously conducted within 1 mi of the APE (**Table 3.1** and **Figure 3.1**). In 2017, IES conducted an archeological survey adjacent to the APE under Texas Antiquities Permit Number 8126. No cultural resources were documented during the survey.

Table 3.1: Previous Archeological Surveys Within 1 Mile of the APE

Agency	ACT* Permit #	Firm/Institution	Date	Survey Type	Location (Approximate)
USDA-SCS	n/a	No data	1981	Linear	Overlaps western half of APE
Federal Highway Administration (FHWA)	No data	No data	1994	Linear	0.07 mi west of the APE
City of Cleburne	1620	Geoarch Consultants	1996	Linear	0.51 mi southeast of the APE
USDA-Rural Development	n/a	Horizon Environmental Services, Inc.	2007	Area	0.33 mi northeast of the APE
City of Cleburne	8126	IES	2017	Area	Adjacent to the APE

3.2 Cultural Resources Potential

In addition to the TASA review, several additional sources were referenced to determine the overall potential for encountering cultural resources within the APE. These sources included the *Soil Survey of Johnson County, Texas*, the Geologic Atlas of Texas (Dallas Sheet), USGS topographic maps, the NRCS digital soil database for Johnson County, the Texas Department of Transportation (TxDOT) Potential Archeological Liability Map (PALM) for Johnson County, the 1936 State Highway Department General Highway Map of Johnson County, the Texas Historic Overlay (THO) georeferenced maps, and both past and current aerial photography.

3.2.1 *Disturbance Analysis*

During the background review, it was determined that ground-disturbing activities related to past land-use and utility infrastructure have occurred in the vicinity of the APE. Historical aerial photography illustrates the APE was utilized as an agricultural field or pasture since the 1940s. In 1987, the USDA SCS impounded West Buffalo Creek approximately 0.78 mi south of the APE. Between 2005 and 2008, a gas pipeline and a sanitary sewer pipeline were installed in the southern portion of the APE. In 2013, Chisholm Trail Parkway was being constructed along the western APE boundary. Although modern development has changed the landscape west of the APE, aerial photographs indicate that much of the APE near West Buffalo Creek has been largely undisturbed as early as 1953.

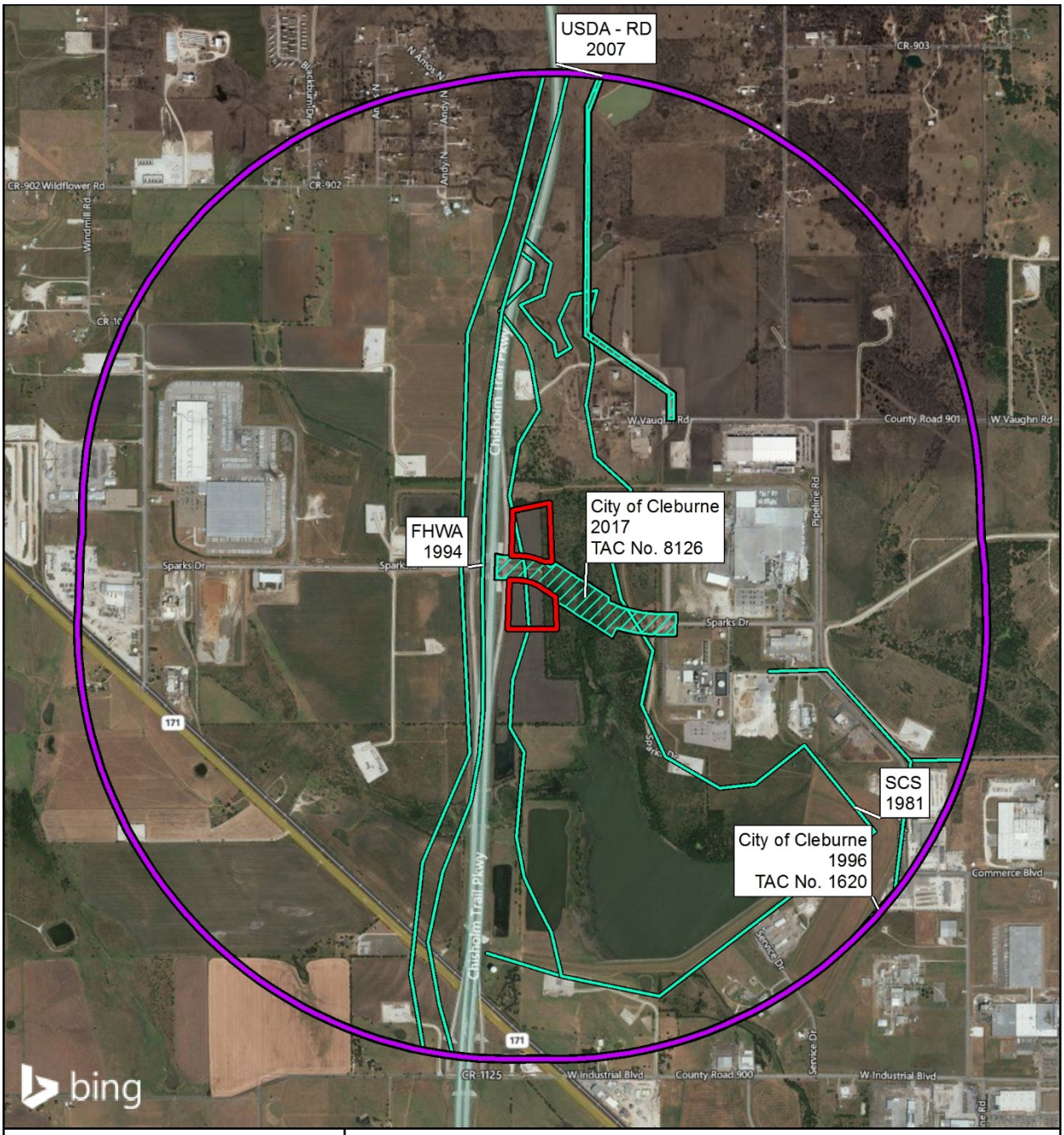

Figure 3.1
Previous Investigations Within
1 Mile of the APE

County: Johnson
State: Texas
Date map created: 7/18/2019
Source: (c) 2009 Microsoft Corporation and its data suppliers; ESRI 10.5
IES Project Ref: 04.266.003

Area of Potential Effects - Direct
Area of Potential Effects - 1 Mile Buffer
Previous Archeological Survey - Area
Previous Archeological Survey - Line

N

1 inch = 2,000 ft

0 2,000 4,000 ft

3.2.2 *Direct APE*

3.2.3 *Prehistoric Resource Potential*

According to the TxDOT PALM for Johnson County, the APE contains a moderate potential for containing shallow and deeply-buried cultural materials within areas that have retained a reasonable contextual integrity. There are no previously recorded prehistoric archeological sites within the Buffalo Creek drainage. The closest previously recorded prehistoric archeological sites within the drainage area are located 10 to 12 mi downstream near the confluence of West Buffalo Creek with the Nolan River. In addition, during the 2017 archeological survey conducted by IES adjacent to the APE, no prehistoric-period cultural materials were observed. During a 2017 site visit between IES and the USACE Regulatory Archeologist of the adjacent, previously-surveyed project area, it was determined that there was low potential for deeply-buried archeological deposits and backhoe trenching was deemed unnecessary. In consideration of past ground disturbances and recent assessments, the APE contains a moderate potential for containing shallow buried and a low potential for deeply buried prehistoric cultural materials.

3.2.4 *Historic-Period Resource Potential*

Previously documented historic-age resources within the vicinity of the APE primarily consist of archeological sites pertaining to late 19th to mid-20th century farmsteads, cemeteries, and structures such as culverts, bridges, houses, barns, and outbuildings. Typically, archeological sites associated with historic-period occupations in the region comprise surficial or near-surface artifact assemblages and dilapidated, collapsed, or demolished structures. As such, these resources typically do not retain sufficient integrity of design or association with historically-important events or individuals to be considered eligible for inclusion in the NRHP or designation as SALs. Typically, these types of resources are located along old roadways, but can also be located along railroads, streams, and open pastures. Although determining the presence of the earliest buildings and structures is problematic, maps depicting these features are available post-1895.

Historically, the landscape within the APE was primarily used for agricultural and ranching purposes. A review of historic maps and aerial photography was conducted to determine the former locations of historic-age resources within and immediately adjacent to the APE. Historical maps indicate the APE was devoid of historic-period buildings and structures. This was visually confirmed through historical aerial photography. As such, the APE has a low potential for historic-period archeological and architectural resources.

3.2.5 *Indirect APE Resource Potential*

Historical and modern aerial photography illustrate there are no historic-aged standing buildings or structures within a 100-ft-wide buffer surrounding the direct APE. This assessment was verified during field survey.

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CHAPTER 4: METHODOLOGY

Prior to fieldwork, IES staff conducted historical and archeological records reviews to determine previously recorded resources within the APE and within a 1-mi radius of the direct APE (see **Section 3.1**). IES staff also reviewed ecological, geological, and soils data, as well as historic and modern maps and aerial photography of the APE. The methods utilized during this survey exceed the minimum archeological survey standards requirements for field investigations recommended by the CTA (CTA 2002), as approved by the THC.

4.1 Survey Methods

4.1.1 *Pedestrian Survey*

The pedestrian reconnaissance survey consisted of visual examination of the ground surface and existing subsurface exposures for evidence of archeological sites within the APE. The pedestrian survey was conducted using multiple transects and was implemented along the entire APE. Areas displaying high levels of erosion or previous disturbance were photographed to document the lack of potential to preserve intact archeological deposits. Other documentation methods included narrative notes, maps, and shovel test records.

4.1.2 *Intensive Survey*

In areas with the potential to contain buried archeological materials and to evaluate the extent and magnitude of previous disturbances, shovel tests were excavated to depths of 80 centimeters (cm) or the extent of soils capable of containing cultural deposits, typically the argillic soil horizon (Bt) in this region. Each shovel test was at least 30 cm in diameter and was hand-excavated in levels not exceeding 20 cm in thickness. Excavated soil was screened using 0.25-in hardware mesh to facilitate the recovery of artifacts. When clay content was high and could not be efficiently screened, the excavated soil was troweled through by hand and inspected for cultural deposits. Additionally, the physical properties of each natural stratigraphic level were recorded. All shovel test locations were recorded using hand-held Global Positioning System (GPS) units. Investigators documented the results of each shovel test on standardized forms. Based on CTA guidelines, project areas between 11 and 100 ac in size displaying little to no previous surface disturbances require approximately seven shovel tests (one shovel test per 2 ac) to be excavated within the 14-ac APE.

Standards for archeological methods typically require that measurements be recorded in metric units. For this reason, while general distances and engineering specifications are described in imperial units (e.g., in, ft, mi) within this report, archeological measurements and observations are listed in metric units (e.g., cm, m, km), unless historic-period artifact or architectural elements are more appropriately recorded in imperial units.

4.2 Curation

No artifacts were encountered or collected during this survey. Project-related records, field notes, photographs, forms, and other documentation will be curated. All project records will be temporarily stored at the IES office and will be permanently curated at the CAR at UTSA upon completion of the project.

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CHAPTER 5: RESULTS

During this survey, the APE was subjected to reconnaissance survey transects and a systematic intensive survey. Pedestrian reconnaissance was conducted across the entire APE to confirm the extent of prior ground disturbances and assess the likelihood of encountering cultural resources. Ground surface visibility ranged from 0 to 80 percent across the APE, based on localized ground conditions. Intensive survey with systematic shovel test sampling in staggered intervals was conducted to confirm the extent and magnitude of previous disturbances and within undisturbed portions of the APE with the potential to contain archeological resources. No cultural resources were identified during this survey.

5.1 Archeological Survey

5.1.1 *Pedestrian Survey*

Pedestrian reconnaissance survey verified the past ground disturbances outlined in **Chapter 3**. During background review, it was determined that ground-disturbing activities related to past land use, transportation development, and utility development have transpired within the APE. Historical aerial photography depicted the majority of the APE was used as an agricultural field or pasture field as early as 1953. Recent development includes the installation of natural gas and sanitary sewer pipelines in the southern portion of the APE as early as 2005. Although modern development has changed the landscape west of the APE, aerial photographs indicated that much of the APE near West Buffalo Creek has been largely undisturbed since 1953.

Survey transects were spaced at 30-m intervals generally oriented in an east-to-west direction. The APE was located within a varied environment that ranged from agricultural fields to a sparsely-wooded corridor. The topography within the APE was primarily very gently sloping to the east, toward West Buffalo Creek. Approximately 70 percent of the APE was located within an area that is routinely plowed (**Appendix A, Photographs 1** through **4**). The remaining 30 percent was in an area of secondary growth understory (**Appendix A, Photographs 5** through **8**). Minimal ground disturbances observed within the southern portion of the APE pertained to a 75-ft-wide maintained underground utility easement accommodating the natural gas and sanitary sewer pipelines constructed prior to 2005 (**Appendix A, Photographs 9** and **10**).

5.1.2 *Intensive Survey*

Intensive survey with systematic shovel test sampling in staggered intervals was conducted to confirm the extent and magnitude of previous disturbances and within undisturbed portions of the APE with the potential to contain archeological resources. During this survey, 18 negative shovel tests were excavated throughout the APE (**Figure 5.1**). Shovel tests within the APE exposed a soil profile that was generally uniform and consisted of an upper stratum of very dark gray (10YR 3/1) silty clay to a depth of approximately 35 to 50 cm below surface (cmbs). Beneath this stratum, dark grayish brown (10YR 4/2) silty clay was encountered to depths exceeding 65 cmbs (**Appendix A, Photograph 11**). There were very few inclusions in the soil, including small amounts of gravel and calcium carbonate ($CaCO_3$) nodules. No archeological materials were encountered in the shovel tests excavated within the APE.

5.2 Indirect APE Assessment

To satisfy NHPA requirements, visual impacts were assessed. Historical maps and modern aerial photographs indicated the indirect APE was void of historic-period resources. The indirect effects survey verified the indirect APE was comprised of agricultural or open land and did not contain any historic-period, non-archeological cultural resources.

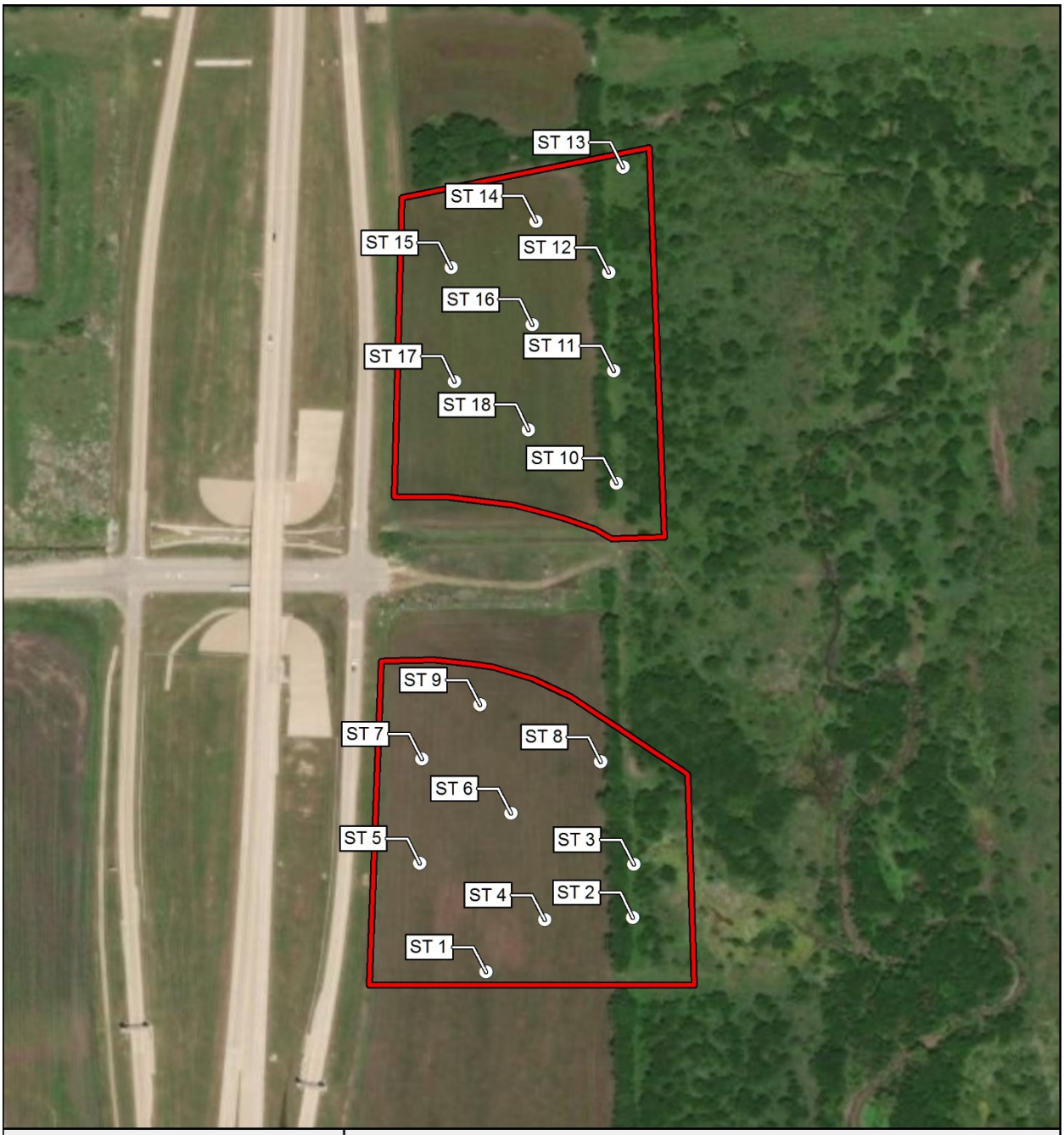

Figure 5.1
Shovel Test Location Map

County: Johnson
State: Texas
Date map created: 8/8/2019
Source: (c) 2019 Microsoft Corporation and its data suppliers; ESRI 10.6
IES Project Ref: 04.266.003

Area of Potential Effects
Negative Shovel Test Location

N

0 300 600 ft
0 100 200 m

CHAPTER 6: SUMMARY AND RECOMMENDATIONS

During this cultural resources survey for the Sparks Drive Valley Storage Project, the entire 14-ac APE was inspected through pedestrian reconnaissance and intensive survey. In total, 18 shovel tests were excavated within the APE. All shovel tests were negative for artifacts or cultural deposits. No archeological sites were encountered during this survey.

Therefore, it is the recommendation of IES that the proposed project be permitted to continue without the need for further cultural resources investigations. However, if any cultural resources are encountered during construction, the operators should immediately stop construction activities in the area of the inadvertent discovery. The project cultural resources consultant should then be contacted to initiate further consultation with the THC and USACE prior to resuming construction activities. In addition, if project designs change, and areas outside the APE defined within this report are to be impacted, additional field investigations may be required.

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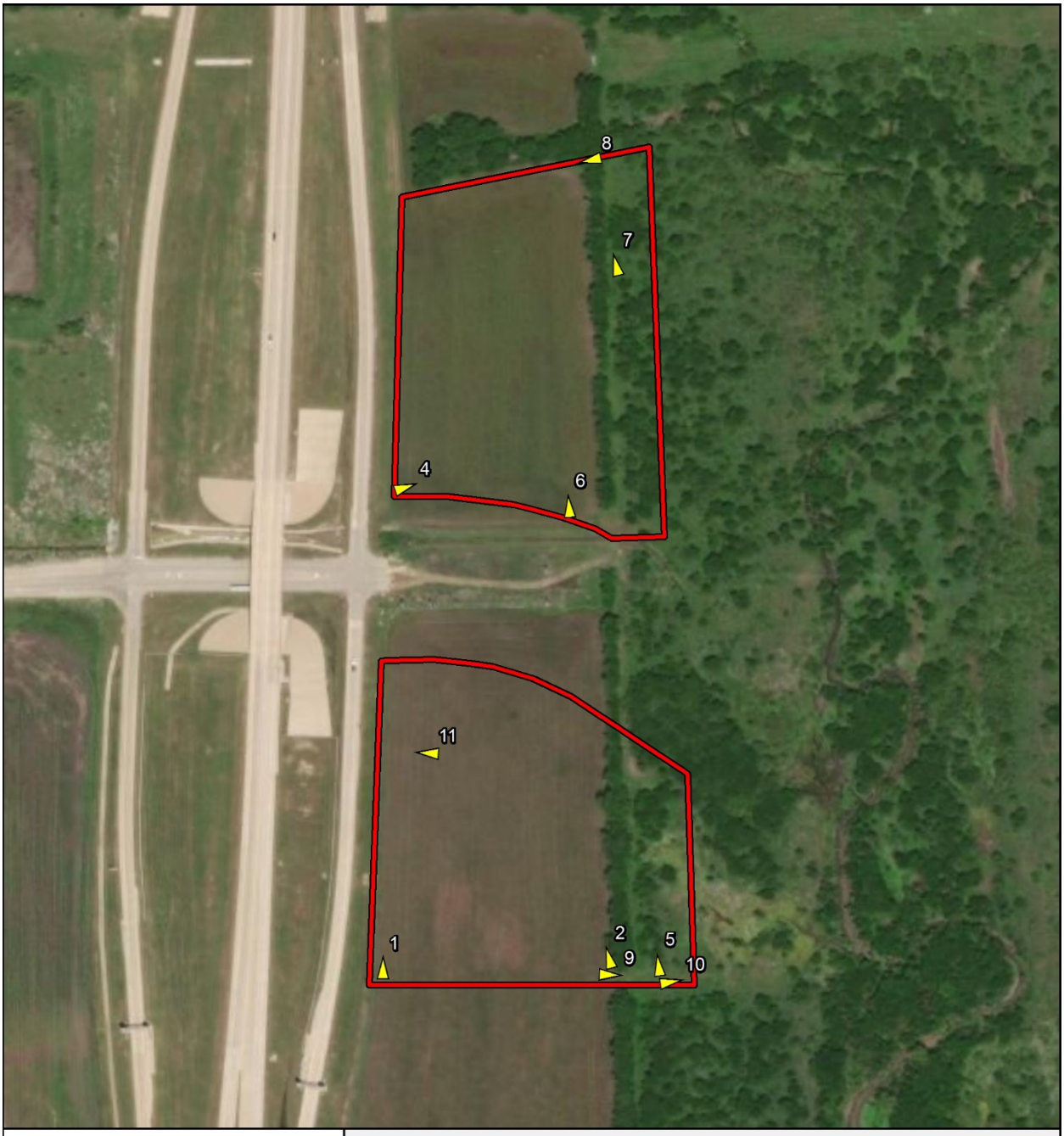

Appendix A
General Project Area
Photograph Location Map

County: Johnson
State: Texas
Date map created: 8/8/2019
Source: (c) 2019 Microsoft Corporation and its data suppliers; ESRI 10.6
IES Project Ref: 04.266.003

APE

Photograph location and direction

N

1 inch = 300 ft

0 300 600 ft

Photograph 1 – Overview of southern half of APE, view to the north.

Photograph 2 – Overview of southern half of APE, view to the northwest.

Photograph 3 – Overview of northern half of APE, view to the south.

Photograph 4 – Overview of northern half of APE, view to the northeast.

Photograph 5 – Overview of wooded section of APE, view to the north.

Photograph 6 - Overview of wooded section of APE, view to the north.

Photograph 7 - Overview of wooded section of APE, view to the north.

Photograph 8 - Overview of overgrown section of APE, view to the west.

Photograph 9 – Gate and sign marking buried gas line on southern edge of APE, view to the east.

Photograph 10 – Buried gas line on southern edge of APE, view to the east.

Photograph 11 – Shovel test profile, view to the north.