AN ARCHAEOLOGICAL SURVEY FOR THE TURKEY CREEK TRAIL PROJECT IN BRAZOS COUNTY, TEXAS

Texas Antiquities Permit Number 3474

by

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BVRA Project Number 04-21

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ABSTRACT

An archaeological survey of the proposed Turkey Creek Trail project in central Brazos County, Texas was performed by Brazos Valley Research Associates (BVRA) in July of 2004 under Archeology Permit 3474. The state agencies associated with this project are the Texas Parks and Wildlife Department (TPWD), the City of Bryan, and the County of Brazos. Because of State involvement, this project falls under the Antiquities Code of Texas. Funding for the project was provided through a National Recreation Trails grant administered by the Texas Parks and Wildlife Service. To be eligible, the applicant competed with numerous public entities and non-profit corporations. Grantees were selected on need and services provided. The area examined consisted of approximately 10 acres. William E. Moore was the Principal Investigator, and Edward P. Baxter was the Project Archaeologist. The project area was investigated using the pedestrian survey method supported by shovel testing. No archaeological sites were recorded, and no artifacts worthy of curation were collected.

ACKNOWLEDGMENTS

BVRA is appreciative of the assistance provided by the City of Bryan. David J. Schmitz and his staff at the Bryan Parks and Recreation Department provided maps and were supportive throughout the project. Edward P. Baxter was the Project Archaeologist, and his assistance was greatly appreciated. The file search and general records check were performed by Allegra Azulay, Records File Search Assistant at the Texas Archeological Research Laboratory (TARL) and Jean L. Hughes, Assistant Curator of Records at TARL. The figures appearing in this report were prepared by Edward P. Baxter. Debra L. Beene was the project reviewer for the Texas Historical Commission, Archeology Division.

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INTRODUCTION

The City of Bryan plans to construct a recreational trail known as the Turkey Creek Trail within the city limits of Bryan in central Brazos County, Texas (Figure 1). Funding for this project was provided through a National Recreational Trails grant administered by the Texas Parks and Wildlife Service. To be eligible, the applicant competed with numerous public entities and non-profit corporations. Grantees were selected on need and services provided. The City of Bryan plans to construct 5600 feet of asphalt trail and renovate another 4000 feet of existing trail, parking area, benches, and signs as part of this project.

The project area consists of a long, narrow corridor estimated at 4000 feet north-south by 50-300 feet east-west (approximately 10 acres) located on the east side of the present channel of Turkey Creek. Elevations range from 280 feet above mean sea level to 300 feet above mean sea level. The main creek channel has changed since the updating of the USGS 7.5' topographic quadrangle Bryan West dated 1962 and photorevised 1971 (3096-423) creating cut-off islands and secondary high water relief channels (Figure 2). Some of the higher ground along the eastern edge of the project area has been cleared during adjacent residential development activities and, in places, the top layers of soil have been graded to form storm water settlement areas.

Brazos County contains significant archaeological sites, both prehistoric and historic with several recorded along Turkey Creek. In a letter from F. Lawerence Oaks, Executive Director of the Texas Historical Commission, signed by William A. Martin to Andy Goldbloom, Program Administrator of TPWD dated January 6, 2003, an archaeological survey of the area is required. The project area is located along one of the major streams in the county, and is viewed by the Texas Historical Commission as high probability area "for containing significant cultural resources within the area of potential effect." In order to satisfy this requirement, the City of Bryan retained BVRA to conduct an archaeological survey that was performed under Archeology Permit 3474, BVRA project number 04-21, and City of Bryan account number 001-1161-450.63-06. The field survey was conducted on July 6, 2004.

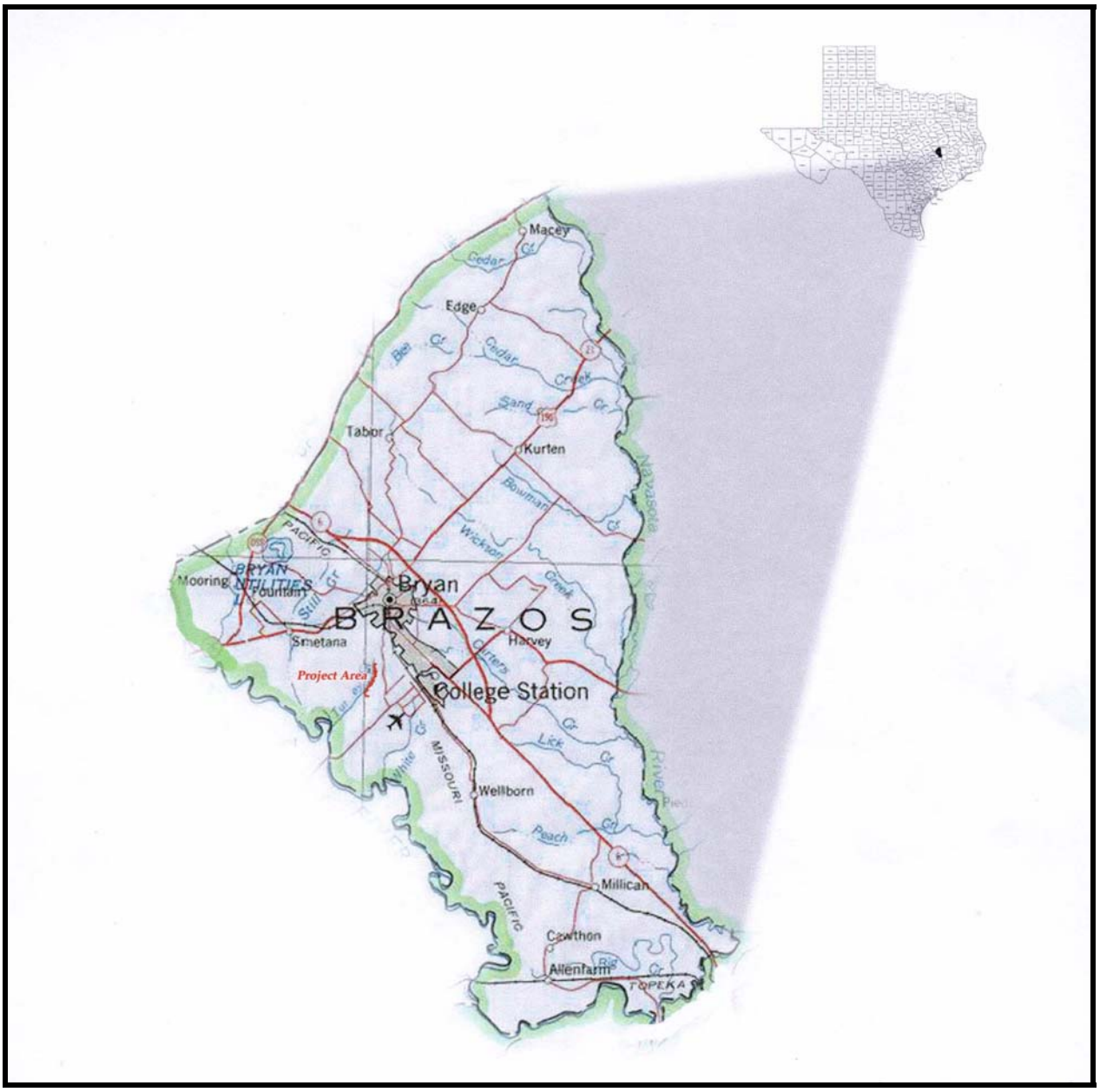

Figure 1. General Location Map

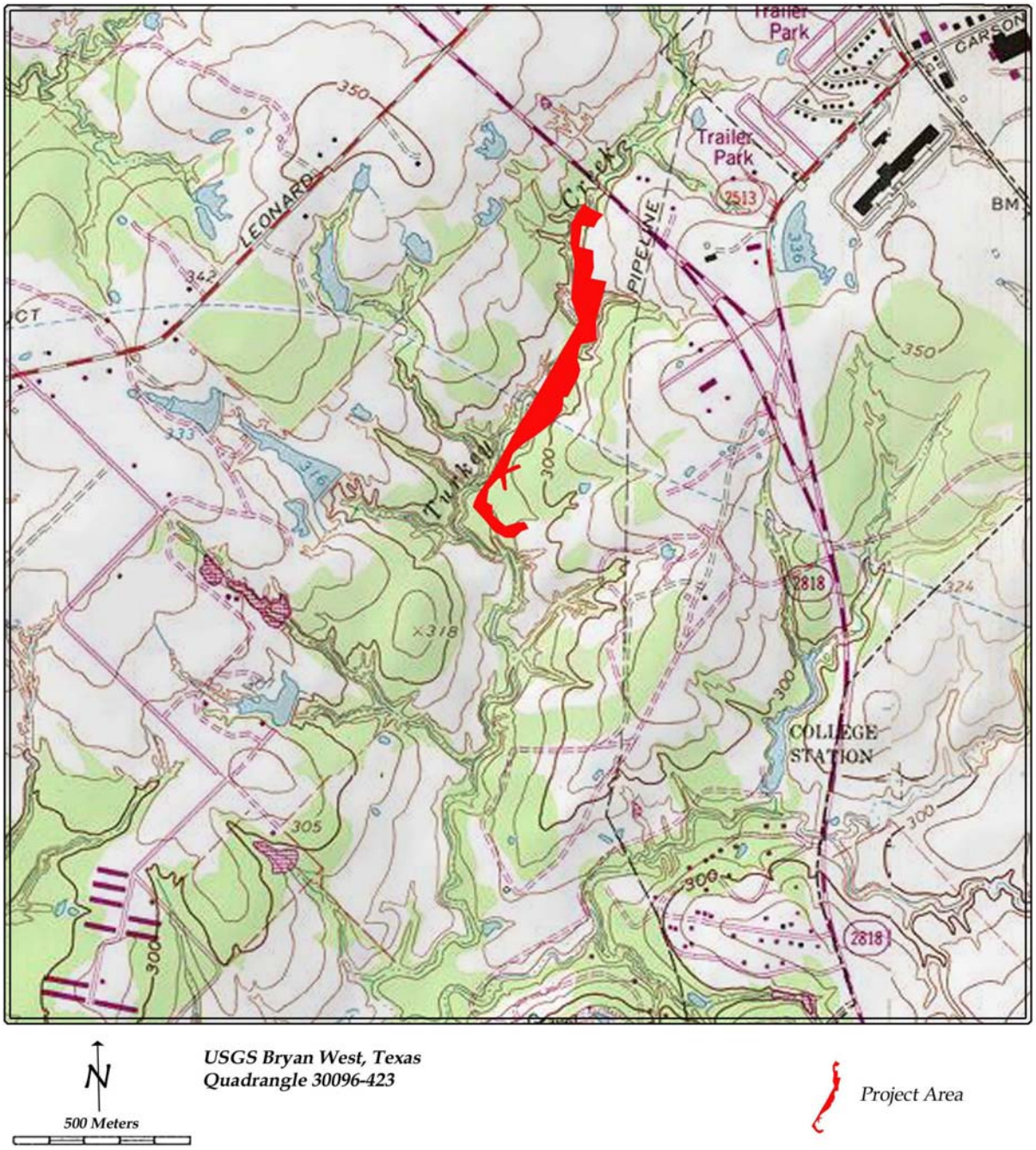

Figure 2. Project Area

ENVIRONMENTAL SETTING

The project area is located within the West Gulf Coastal Plain section of the Coastal Plain physiographic province as defined by Fenneman (1938:100-120). Fenneman subdivides this province according to the age of the geological formations (Gulf series) that roughly parallel the Texas coastline. The area is hilly and situated within the East Texas timber belt. Gould (1969) describes it as an area characterized by gently rolling to hilly topography with light colored soils that are acid sandy loams or sands.

The climate is subhumid to humid, and the weather is considered to be predominately warm. Annual rainfall for Brazos County is 39.21 inches. A January minimum temperature of 42 degrees Fahrenheit and a July maximum temperature of 95 degrees Fahrenheit combine to produce a growing season of 274 days (Kingston and Harris 1983:180). The altitude varies from 200-400 feet. The project area is located on a tract of land that is drained by Turkey Creek and its tributaries. Elevations vary from 250 feet along the creek bottoms to 332 feet in the uplands that comprise the majority of the project area.

According to the recently published soil survey for Brazos County (Chervenka 2003), three soil types dominate the project area. These are Gredge fine sandy loam, 5 to 8 percent slopes (GrD); Sandow loam, frequently flooded (Sa); and Tabor fine sandy loam, 0 to 2 percent slopes (TaA).

GrD soils are located on the backslopes of stream terraces. In a typical profile, loamy soils are present to a depth of at least 75 inches and are classified as very deep. They are well drained, runoff is rapid, permeability is very slow, and available water capacity is moderate (Chervenka 2003:52-53).

Sa soils are located in flood plains along local streams in flats and natural levees. In a typical profile loamy soils are present to at least 80 inches and are classified as very deep. They are moderately well drained, runoff is slow, permeability is moderately slow, and available water capacity is high (Chervenka 2003:75).

TaA soils are located on the summits and toe slopes of stream terraces. In a typical profile loamy soils are present to at least 14 inches above a clay subsoil that extends to at least 80 inches. These soils are classified as very deep. They are moderately well drained, runoff is slow, permeability is very slow, and available water capacity is moderate (Chervenka 2003:86-87).

ARCHAEOLOGICAL BACKGROUND

According to a recently published planning document for the Eastern Planning Region of Texas (Kenmotsu and Perttula 1993:Figure 1.1.2), Brazos County is situated within the Southeast Texas archeological study region. In 1985, according to the planning document (Biesaart et al. 1985:114), Brazos County contained 33 recorded sites. In 1985, 0 sites in the county had been excavated, 0 had been tested by hand, and 33 had been surface collected. Two recorded prehistoric sites in the county were listed as Paleoindian, 1 was listed as General Archaic, and 1 was listed as Late Prehistoric (Biesaart et al. 1985:114). The archaeological potential of Brazos County is reflected in part by the increasing number of recorded sites found as a result of cultural resource management studies. As a result of these investigations, the number of recorded sites now stands at 157 (TARL site records). A check of the records at the Texas Archeological Research Laboratory in Austin, Texas revealed seven prehistoric sites and one historic site along Turkey Creek. From north to south, the following sites have been recorded: 41BZ73, 41BZ2, 41BZ131, 41BZ133, 41BZ134, 41BZ89, 41BZ140, and 41BZ158.

Site 41BZ73 was recorded in 1981 as 100 acres in size and located on a hilltop east of Turkey Creek to the west. When construction of a nearby nightclub exposed the site area numerous relic collectors visited the site. Artifacts found in the area include Paleoindian points and *Scallorn* arrow points (TARL site files). No formal investigation by a professional archaeologist was conducted, and no site report is on file at TARL.

Site 41BZ2 is located on a sandy hill overlooking Turkey Creek to the west. Much of the site has been destroyed by gravel quarrying operations, but Paleoindian artifacts were reported by the original recorder, James Boone, in 1969 (TARL site files). Boone donated the artifacts to TARL where they are currently housed with photographs. No professional work has been conducted at 41BZ2. Two *Meserve* points taken from this site are curated at the Museum of Archeology and Material Culture in Cedar Crest, New Mexico (Bradley F. Bowman, personal communication to William E. Moore, July 6, 2004).

Site 41BZ131 is located on a sandy upland ridge surrounded by Turkey Creek and two of its tributaries at an elevation of 312 feet above mean sea level. Artifacts recovered represent an occupation from the Paleoindian through Late Prehistoric periods. Diagnostic projectile point types include Paleoindian (*Plainview*, *Angostura*, and *Early Stemmed*), Archaic (*Pedernales*, *Godley*, and *Gary*), and Late Prehistoric (*Scallorn*) specimens. It was recorded by BVRA during a survey for the Tradition Golf and Country Club (Moore 2001)

Site 41BZ133 is a prehistoric occupation site located on the crest of a wooded sandy hill between two tributaries of Turkey Creek at an elevation of 332 feet above mean sea level. No temporally diagnostic artifacts were found at this site; therefore, its age is not known. The size of this site, based on shovel tests, is 100 m northeast/southwest by 180 m northwest/southeast. Sixteen shovel tests in the site area produced artifacts that were collected. Seventy-nine chert flakes were recovered for an average of 4.93 flakes per positive test. Flakes recovered per test varied from 1 to 15. Artifacts were found in nine levels (0-90 cm). Only five of the sixteen shovel tests were dug to clay; they ranged in depth from 65 to 110 cm. Materials recovered consisted of primary, secondary, and tertiary flakes. Also present, were pieces of non-cultural petrified wood, potlids, and chert shatter (not collected). It was recorded by BVRA during a survey for the Tradition Golf and Country Club (Moore 2001)

Site 41BZ134 is a prehistoric occupation site located on the crest of a wooded sandy hill overlooking Turkey Creek to the southeast and one of its tributaries to the southwest at an elevation of 270 feet above mean sea level. No temporally diagnostic artifacts were found at this site; therefore, its age is not known. The size of this site, based on shovel tests, is 20 m northwest/southeast by 40 m northeast/southwest. Four shovel tests in the site area produced artifacts that were collected. Eight chert flakes were recovered for an average of 2 flakes per positive test. Artifacts were found in 7 levels (0-80 cm). All of the tests were dug to clay with the deepest being terminated at 110 cm. Materials consisted of tertiary flakes with only a few specimens exhibiting traces of cortex. All of the flakes are of locally available chert. It was recorded by BVRA during a survey for the Tradition Golf and Country Club (Moore 2001)

Site 41BZ89 is located on a high knoll overlooking Turkey Creek to the west. It was recorded in 1987 by archaeologists from the Texas Department of Transportation (formerly the State Department of Highways and Public Transportation). It is a farmstead dating to the early 20th century. The barn is a double-pen hewn and adzed structure.

Site 41BZ140 is located on a sandy hill overlooking Turkey Creek approximately 550 feet to the south. This prehistoric site was recorded by BVRA during a survey of a well pad site (Moore 2000). It was found in the southwest corner of the proposed well pad. The approximate size of site 41BZ140, based on shovel testing, is 80 feet north south and 75 feet east west. Shovel testing yielded seven chert flakes and one medial biface fragment in a loose fine sandy loam overlying hard clay. No features such as burned rock or discolored soil were observed in any of the 19 shovel tests. Therefore, it is assumed that this site represents a temporary activity area where tool manufacture and/or repair were conducted. This is a rather shallow site with all artifacts found between 10 and 50-66 cm below the existing ground surface. Allowing for approximately 10 cm of recent humus, the depth of 41BZ140 is between 10 and 66 cm.

Since the shovel tests were not excavated in arbitrary 10 cm levels, it is impossible to state the actual depth of each artifact found at this site. It can only be assumed that they came from some level within the 10 to 66 cm range. This site is just to the north of 41BZ158 and on the same landform.

Site 41BZ158 is located on a sandy hill overlooking the flood plain of Thompson's Creek to the south and is due west of Turkey Creek. Numerous shovel tests and fifteen backhoe trenches yielded numerous chert and petrified wood flakes and a feature that may represent a disposal site for materials used during cooking. No diagnostic artifacts were found. Although sites on similar landforms in the area have produced burials, features, and diagnostic artifacts, this site was regarded as not significant because debitage represents the only cultural materials recovered. A collection of arrow points by the landowner is an indication that at least part of this site dates to the Late Prehistoric period. This site was recorded during a survey of a site to be used by the City of Bryan for a wastewater treatment plant and discharge line (Moore and Baxter 2005).

Although most of the cultural resource surveys in the county have involved small areas, several projects investigated tracts greater than 100 acres. These are the 102 acre White Creek project for a Texas A&M University Wastewater Treatment Plant (Thoms 1993b), the 150 acre Veterans Park (Dering and Mason 2001), the 185 acre Valley Slopes project (Thoms 1993a), the 203 acre George H. Bush Presidential Library Center (Moore and Warren 1993), the 530 acre Lick Creek Park (Dering and Mason 2001), and the 945 acre Tradition Golf and Country Club (Moore 2001). These studies found that prehistoric sites in Brazos County vary from small lithic scatters to more permanent campsites containing hearths. Human remains have been encountered in the buried alluvial clays of the Brazos River; however, no burials have been excavated under controlled conditions in terrace or upland sites. Typically, prehistoric sites are situated on hills with deep sandy soils overlooking creeks and rivers where water and other resources were available. Many sites occur on the first terraces and in upland settings, while a few deeply buried sites in the Brazos River alluvium have also been recorded.

It is beyond the scope of this report to discuss in detail the archaeological background of Brazos County, especially when numerous contract reports are available. The interested reader is referred to the statistical overview (Biesaart et al. 1985), the planning document published by the Texas Historical Commission (Kenmotsu and Perttula 1993), and the in-depth reports by Thoms (1993a, 1993b) for more detailed information regarding the archaeology of Brazos County.

METHODS OF INVESTIGATION

The field survey was supplemented by an examination of site records and other documents at TARL in Austin, Texas. The records at TARL were checked for a listing of known sites in the project area and general vicinity. Relevant archaeological reports documenting work in Brazos County were reviewed in order to become familiar with the kinds of prehistoric and historic sites found in the area.

The project area was examined in the field by means of a pedestrian survey. The field crew consisted of William E. Moore (Principal Investigator) and Edward P. Baxter (Project Archaeologist). The project area consisted of cleared areas now covered with tall grass and woods. Surface ground visibility varied from 10% to 40% except for the cut banks along the creek where visibility was 100%. These exposed banks were visually inspected. Shovel tests were excavated throughout the project area with an emphasis on high probability areas for prehistoric sites. These areas were determined to be likely settings for cultural resources based on the topographic map and a visual inspection of the entire area. In all, 16 shovel tests were excavated (Figure 3). All excavated earth was screened through quarter-inch hardware cloth. Data obtained from shovel tests were recorded on a shovel test log (Appendix I). All shovel tests were backfilled after evaluation and mapping.

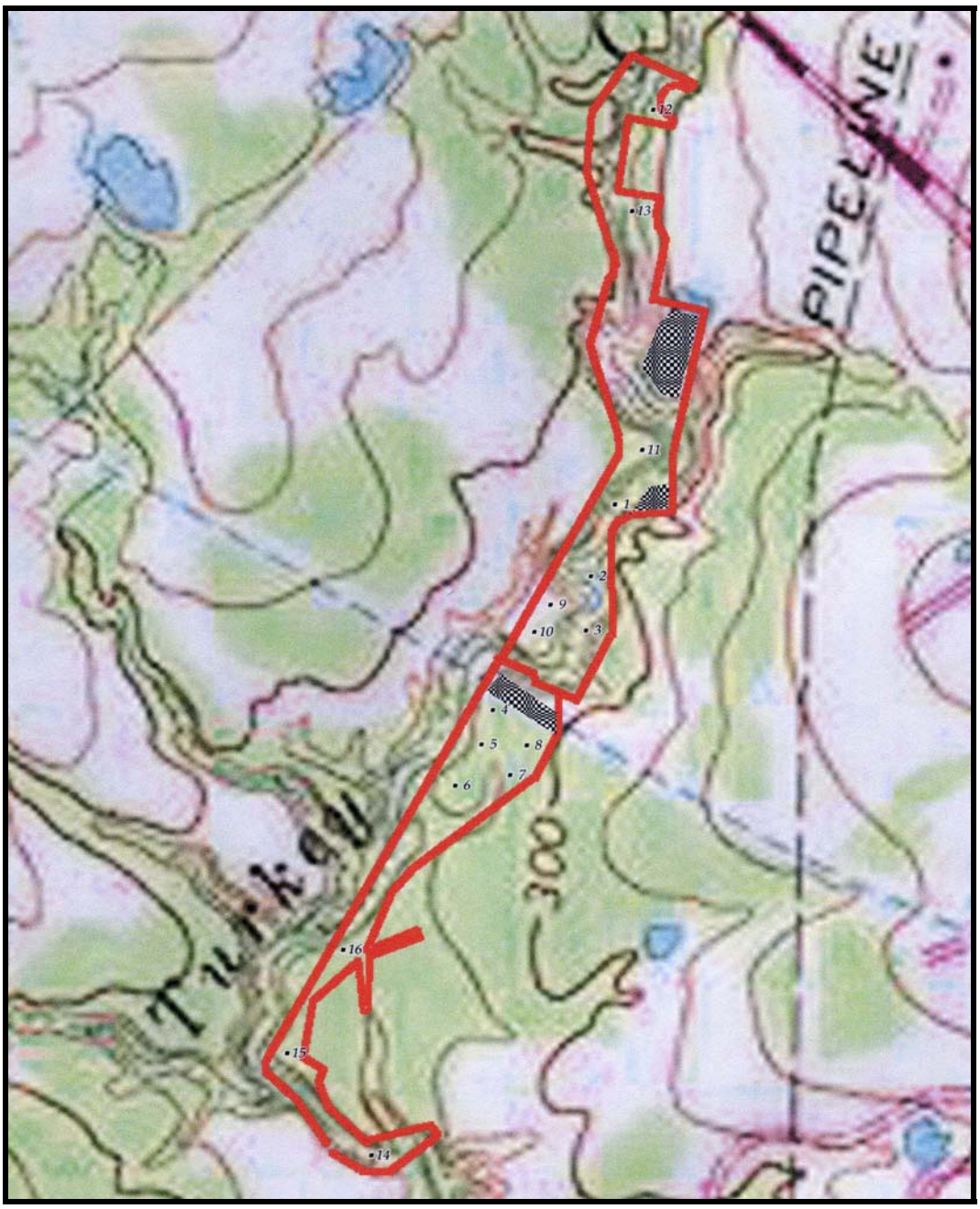

Figure 3. Shovel Test Locations

(cross-hatched areas represent disturbance)

RESULTS AND CONCLUSIONS

Examination of the files at TARL in Austin, Texas revealed no sites have been recorded in the project area. It was learned, however, that prehistoric sites appear to be rather common along Turkey Creek and its tributaries. Sites in the area date from Paleoindian to Late Prehistoric times.

Although several areas on the topographic map appeared to be likely settings for prehistoric sites, no cultural materials were found in any of the 16 shovel tests which were dug to depths of 40 to 100 cm below the existing ground surface. Overall, the soils were sandy; however, all of the tests were dug to at least 10 cm into the clay subsoil. Water was present in Turkey Creek at the time of this survey. It should be pointed out here that the current channel of the creek does not match the topographic map which was photorevised in 1971. Some of the high ground shown on the map has been washed away due to the meandering of the creek. As a result, the entire project area is on the east side of the creek. Petrified wood is very common in the project area. Numerous pieces, large and small, were observed on the ground surface in eroded areas throughout the project area and in many of the shovel tests. The presence of petrified protruding from the clay subsoil is evidence that this is an older stratum not likely to contain archaeological sites. Areas of disturbance are depicted in Figure 3.

The "Minimum Survey Standards" for project areas of 200 acres or less requires two shovel tests per acre for tracts between 3 and 10 acres. Due to extensive disturbance in portions of the project area, a lesser number of shovel tests was excavated.

RECOMMENDATIONS

No archaeological sites were found within the project area. It is, therefore, recommended that the project proceed without further consultation with the Texas Historical Commission relative to cultural resources. Should evidence of an archaeological site be encountered during construction, all work must be temporarily suspended in the area of the find until assessed by a professional archeologist in consultation with the Texas Historical Commission.

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APPENDIX I: SHOVEL TEST LOG

Test	Depth*	Results (all tests negative)
01	100 cm	dug through sand in high weeds; surface visibility 10%
02	0-30 cm 30-40 cm	dug through sand in woods; surface visibility 30% dug through clay
03	0-40 cm 40-50 cm	dug through sand in high weeds; surface visibility 20% dug through clay
04	0-40 cm 40-50 cm	dug through sand and clay in woods; surface visibility 40% dug through clay
05	0-20 cm 20-40 cm	dug through sand in woods; surface visibility 30% dug through clay
06	0-80 cm 80-90 cm	dug through sand in woods; surface visibility 10% dug through clay
07	0-40 cm 40-50 cm	dug through sand; surface visibility 10% dug through clay
08	0-30 cm 30-40 cm	dug through sand; surface visibility 10% dug through clay
09	100 cm	dug through sand in woods; clay not encountered; surface visibility 20%
10	100 cm	dug through sand in woods; clay not encountered; surface visibility 10%
11	0-60 cm 60-70 cm	dug through sand in woods; surface visibility 20% dug through clay
12	0-40 cm 40-50 cm	dug through sand in high weeds; surface visibility 20% dug through clay
13	0-50 cm 50-60 cm	dug through sand in high weeds; surface visibility 30% dug through clay
14	0-20 cm 20-30 cm	dug through sand in woods; surface visibility 20% dug through clay

Test	Depth*	Results (all tests negative)
15	0-40 cm	dug through sand and clay in woods; surface visibility 20%
16	0-30 cm	dug through sand and clay in woods; surface visibility 20%
	30-40 cm	dug through clay

* Depth measured in cm below ground surface