

***AN ARCHAEOLOGICAL SURVEY FOR THE
BROOKSMITH SPECIAL UTILITY
DISTRICT WATER LINE PROJECT IN
BROWN COUNTY, TEXAS***

Antiquities Permit 4904



By

William E. Moore

***Brazos Valley Research Associates
Contract Report Number 202***

2008

AN ARCHAEOLOGICAL SURVEY FOR THE BROOKESMITH
SPECIAL UTILITY DISTRICT WATER LINE PROJECT
IN BROWN COUNTY, TEXAS

BVRA Project 08-17

Principal Investigator

William E. Moore, RPA

Prepared for

Brookesmith Special Utility District
Post Office Box 27
Brownwood, Texas 76804

Prepared by
Brazos Valley Research Associates
813 Beck Street
Bryan, Texas 77803

ABSTRACT

An archaeological survey of a proposed 12.39-mile water line in south-central Brown County, Texas was performed on May 4, 2008 by Brazos Valley Research Associates (BVRA) for the Brookesmith Special Utility District (SUD) under Antiquities Permit 4904. Two areas were examined. Area A is a 3.83-mile segment north of Lake Brownwood that does not cross any creeks, and Area B is an 8.56-mile segment south of the city of Brownwood that crosses one creek. No archaeological sites were found in either of the two areas, and it is recommended that construction of the water line be allowed to proceed as planned. In all, the project area comprises 22.53 acres. No artifacts were collected. Copies of the report are on file at the Texas Historical Commission (THC), Archeology Division, Texas Archeological Research Laboratory (TARL), and BVRA.

ACKNOWLEDGMENTS

I am appreciative of the assistance provided by others during this project. Justin Helms at Jacob & Martin, Ltd. was the Project Engineer and provided project area maps. Mike Taylor and Roger Sikes of the Brookesmith SUD were my contacts with that agency, and Mr. Sikes signed the permit application. Jean Hughes checked the site records at TARL for previously recorded sites in the project area and vicinity. The figures that appear in this report were prepared by Lili G. Lyddon.

CONTENTS

ABSTRACT.....	II
ACKNOWLEDGMENTS	III
INTRODUCTION	1
ENVIRONMENTAL SETTING.....	5
ARCHAEOLOGICAL BACKGROUND	6
METHODS.....	8
RESULTS AND CONCLUSIONS.....	9
RECOMMENDATIONS.....	13
REFERENCES CITED.....	14

APPENDIX I: Historic Bridge Photographs

Figures

FIGURE 1. GENERAL LOCATION	2
FIGURE 2. PROJECT AREA ON TOPOGRAPHIC MAP BYRDS.....	3
FIGURE 3. PROJECT AREA ON TOPOGRAPHIC MAP INDIAN CREEK.....	4
FIGURE 4. DISTURBANCE ALONG COUNTY ROAD 118	10
FIGURE 5. ROAD RIGHT-OF-WAY ALONG COUNTY ROAD 239	11
FIGURE 6. ROCKY SOILS ALONG COUNTY ROAD 239	12

INTRODUCTION

The Brookesmith SUD plans to install 12.39 miles of three-inch and six-inch water line along Farm-to-Market Road 45 and several county roads in rural Brown County, Texas (Figure 1). The purpose of this project is to provide potable water to residents of Brown County who do not currently have water service. Groundwater is the only alternative to the proposed project, and the existing groundwater supply is unreliable. When available, it is of very poor quality. This project is being funded by the Texas Water Development Board (TWDB). The water line will be placed in a trench with three feet of cover and between six and twelve inches wide depending on pipe size and the availability of trenching machines. The construction easement will be fifteen feet wide. The majority of the water line will be within the existing highway rights-of-way, and the rest will be on private property. No structures will be constructed within the 100-year floodplain. All water distribution lines within any floodplain will be installed underground in order to not hinder the flow of storm water or impede surface drainage anywhere along the route of the proposed water line. Following construction, there will be no direct or indirect impacts to prime farmland, and there will be no direct or indirect adverse impacts to hydrological elements due to this project. No habitat for threatened and endangered species is known to occur in the project area. If such habitat is identified, direct impacts will be mitigated by realignment of the project or by restriction of construction activities near such habitat to the non-breeding, non-nesting season of the year. Indirect impacts to such habitat are likely to be the result of subsurface location of the water line. Erosion will be controlled by compaction of trench backfill, locating excess excavation away from wetlands and floodplains, and utilizing silt control. The project area is depicted on two USGS topographic quadrangles. They are Byrds (3199-444) (Figure 2) and Indian Creek (3198-322) (Figure 3). In a letter to Environmental Coordinator, Justin Helms of Jacob & Martin, Ltd. it was recommended by the THC that a cultural resources survey be performed by a professional archaeologist prior to the installation of the water line in all high probability areas. In order to comply with this request, the Brookesmith SUD retained BVRA of Bryan, Texas to conduct this investigation. The photograph on the cover is an older structure outside the project area.

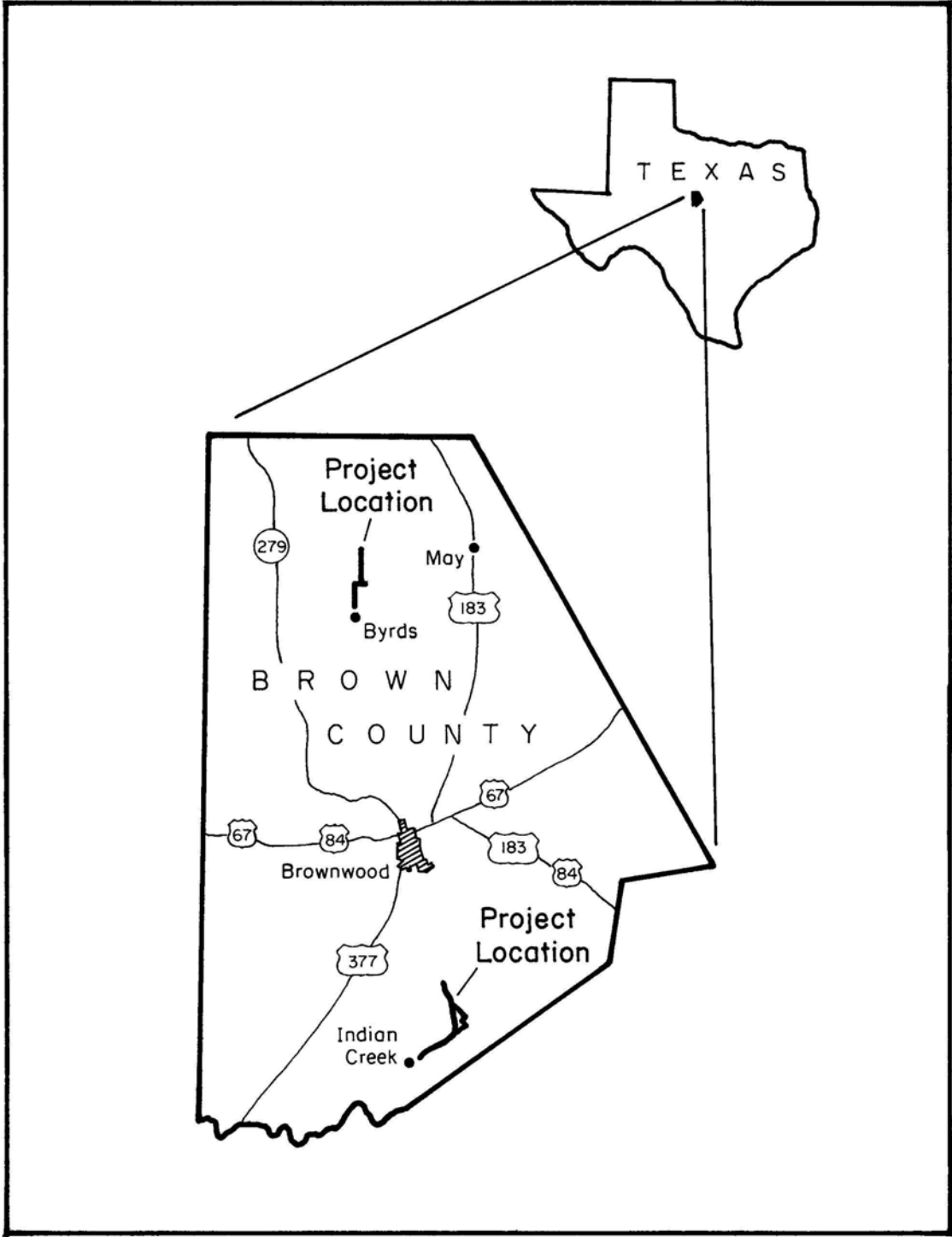


Figure 1. General Location

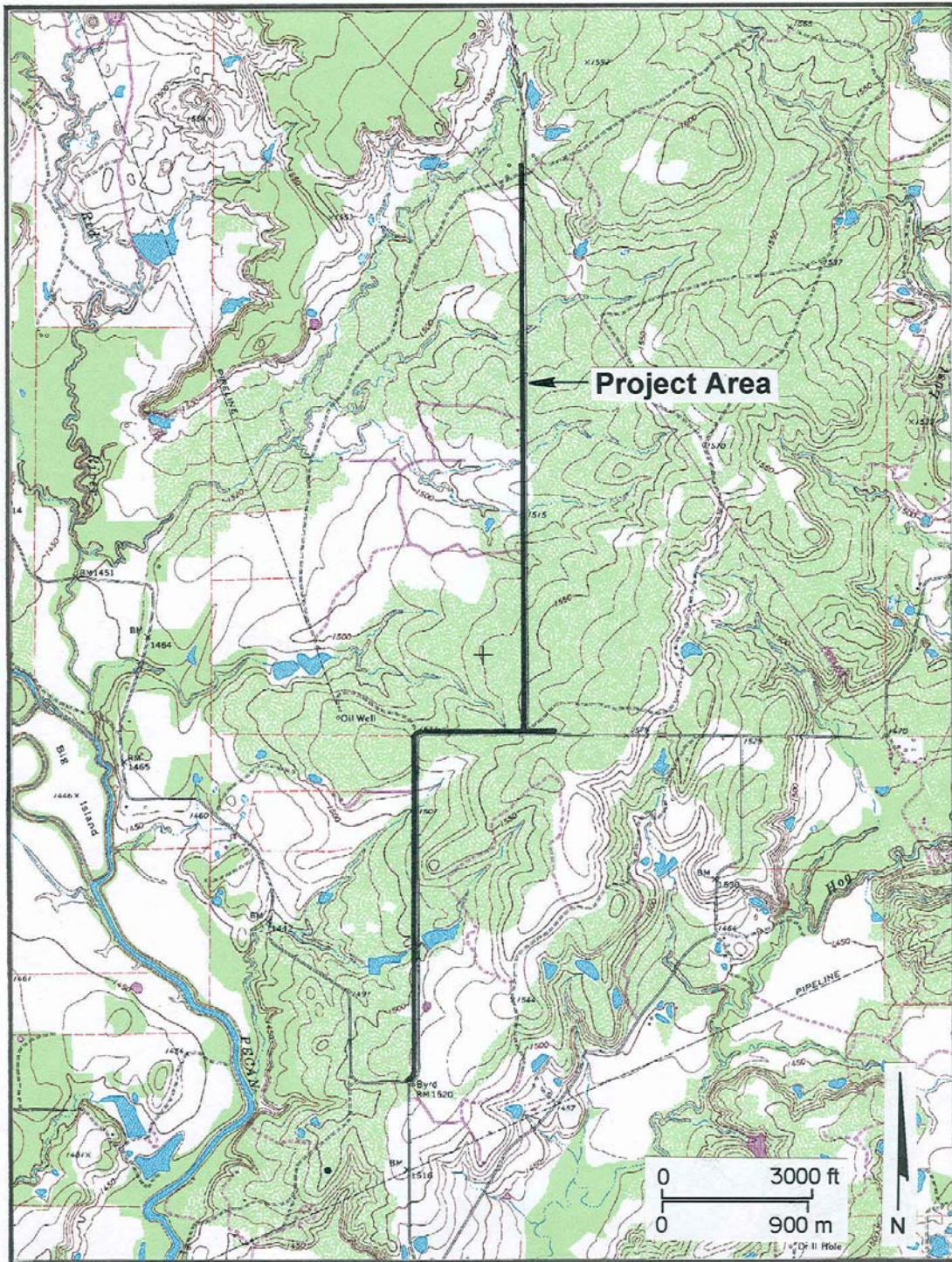


Figure 2. Project Area on Topographic Map Byrds

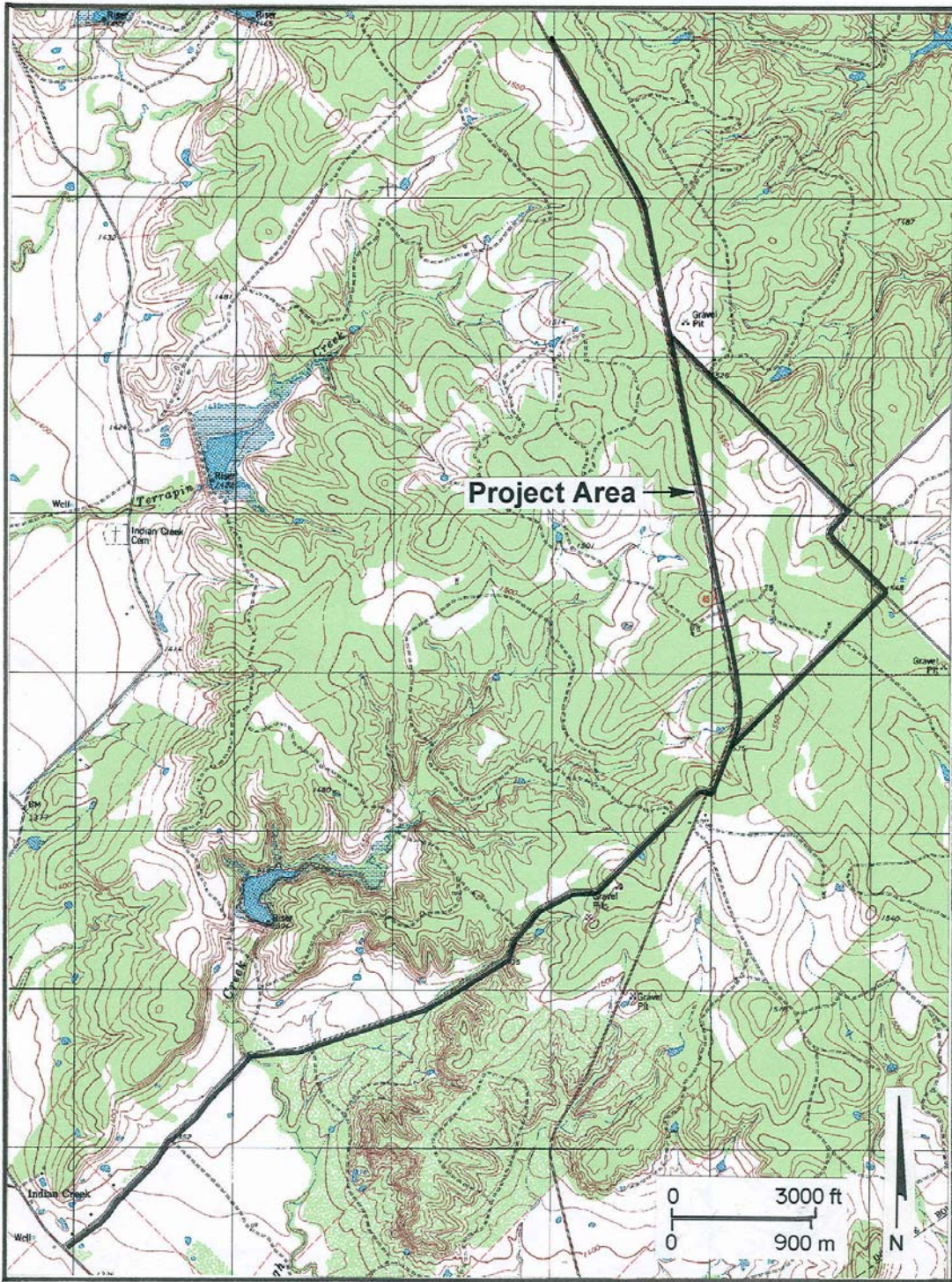


Figure 3. Project Area on Topographic Map Indian Creek

ENVIRONMENTAL SETTING

Brown County is an area of rolling hills and varied soils that drains to the Colorado River to the south that forms the southern boundary of Brown County. According to Clower (1980:1), the pattern of soils in Brown and Mills counties is complex. He states that four major geologic formations have influenced the nature of the soils. In Brown County and adjacent Mills County three major land resource areas converge. In the eastern part of the area, are the soils of the Grand Prairie; in the western part of the area are soils of the Texas North Central Prairies, and in the northern part of the area are soils of the West Cross Timbers. The soils of the Grand Prairie and Texas North Central Prairies formed mainly under grass vegetation and are dominantly dark colored and loamy and clayey. The soils of the West Cross Timbers formed under post oak savannah and are dominantly light colored and sandy and loamy. In both areas surveyed, the soils are described by Clower (1980:General Soil Map for Brown County) as very shallow to deep loamy and clayey soils on uplands. In Area A, the soils are described as “gently sloping to hilly, moderately deep to deep, stony loamy soils over sandstone or shale.” In Area B, the soils are described as “gently sloping to hilly, shallow to moderately deep, gravelly loamy soils over limestone.” In the one high probability area where the water line will cross Rough Creek, the soils are depicted on Sheet 61 in the soil survey and described by Clower (1980:28) as Frio silty clay loam, frequently flooded. This is a nearly level soil on flood plains along small streams. This soil type floods once or twice a year and is loamy. The dominant vegetation in the county is mesquite and buffalo grass although live oaks and red oaks are commonly found on the slopes and in the rocky uplands. According to Blair (1950), the project area is located within the Balconian Biotic Province.

ARCHAEOLOGICAL BACKGROUND

Brown County is located in the North Central Texas Cultural-Geographical Region of Texas as defined by Biesart et al. (1985) in a planning document published by the Texas Historical Commission. Brown County, with 2678 recorded sites in 1985, was second in a region that consists of 39 counties. Of the 95 recorded sites in Brown County in 1985, 2 are Paleo-Indian, 1 is Late Archaic, 32 are General Archaic, and 2 are Late Prehistoric. Disturbance to sites in the county is listed by Biesart et al. (1985:184) as erosion (n=95), construction (n=6), dispersed (n=25), vandalized (n=2), and destroyed (n=1). Investigation at sites in the county in 1985 consisted of excavated (n=1), tested by hand (n=3), tested by machine (n=2), and surface collected (n=65). Brown County was ninth in the region in terms of the number of sites recorded in 1985. At the time of this survey there were over 550 recorded prehistoric and historic sites in the county, and the only six sites listed in the in the National Register of Historic Places are in the city limits of Brownwood. Only one site has been documented as a State Archeological Landmark. This is the Brown County Jail, also in the city limits of Brownwood.

The earliest professional activity in Brown County occurred in 1919 when Professor J. E. Pearce of The University of Texas at Austin trenched two burned rock middens at the Pittman Farm site (41BR3) on Willis Creek, a tributary of Pecan Bayou (Campbell 1952). No artifacts were found in either trench, and Pearce concluded that the middens represent debris discarded from a central hearth area. Other early work in the county was conducted by Cyrus N. Ray in the 1930s. Ray (1933) examined a burial that was being destroyed by road construction. In 1960, a guide to the literature of Texas archeology was published by Thomas N. Campbell (1960) in the *Bulletin of the Texas Archeological Society*. In this volume, only seven references to Brown County were included. The first series of modern era professional investigations in the county were carried out by archaeologists from Texas A&M University. Most of these projects were in areas along Pecan Bayou (Shafer 1975; Shafer et al. 1975a, 1975b; 1976). These studies found a variety of sites that include lithic scatters, burned rock middens, lithic quarries or procurement areas, rock shelters, and habitation sites. Based on this work, they concluded that prehistoric occupation was concentrated along the major streams, and the upper reaches of tributaries were utilized on an occasional or intermittent basis. Many of the archaeological sites in Brown County were recorded in the 1970s by locals along Turkey Creek and Red River and scattered about the landscape in the northern part of Brown County. The kinds of sites identified were mainly lithic scatters and burned rock middens. In 1979 and 1980, two field schools were sponsored by the Texas Archeological Society on the Eubank Ranch on Pecan Bayou and some of its tributaries under the direction of Gerald Humphreys. The kinds of prehistoric sites found include ring middens, mound middens, a rock shelter, campsite, lithic scatter, and burial site. Historic sites include houses, a mill, and wagon road.

At this time there is no final report documenting the results of the two field schools. Information can be found in articles and manuscripts by Humphreys (1979, 1980), Teak and Eck (1979), and Hoffrichter and Davis (1981).

A portion of the project area is along Farm-to-Market Road 45. In 1991, archaeologists from the State Department of Highways and Public Transportation (now Texas Department of Transportation [TxDOT]) examined this road and found no sites. A report is on file at TxDOT (1991).

Some of the more recent investigations have been conducted at Lake Brownwood State Park (Anthony and Brown 2000) and throughout the county for projects created by the Brookesmith SUD (Henderson 1999; Skinner 2000, 2002, 2005). These studies were located in upland settings, and few sites were found. Henderson (1999:2) attributes the lack of prehistoric sites in her project area to the upland setting and previous disturbance.

METHODS

Prior to entering the field the Archeological Site Atlas was checked for previously recorded sites and past surveys in the area. Three important reports were reviewed during the planning stages of this project. These are a planning document published by the Texas Historical Commission (Biesaart et al. 1985), a planning document published by the Department of Antiquities Protection (now Texas Historical Commission, Archeology Division) (Kenmotsu and Perttula 1993), and a report by S. Alan Skinner (2005) documenting work in the general area. The interested reader is referred to these sources for additional information regarding the prehistory of this area. The field investigation was conducted on May 4, 2008 by the Principal Investigator. The first area visited was Area A, which consists of 3.83 miles of proposed water line along two county roads (County Road 117 and County Road 118). The water line will be placed on the west side of the roads across the fence on private property. The entire area was driven and occasional stops were made to inspect the ground surface for evidence of a prehistoric site. Surface visibility was excellent. The road cut revealed a shallow soil overlying rock in most places. Therefore, shovel testing was not conducted. The second area visited was Area B, which consists of 8.56 miles of proposed water line along Farm-to-Market Road 45, county roads 236, 239, and 265. The water line will be placed on the east side of Farm-to-Market Road 45 and County Road 265 and on the south side of county roads 236 and 239. The section along County Road 239 will be placed on private property. The entire area was driven with occasional stops to inspect the ground surface for evidence of a prehistoric site. No chert nodules or burned rock were observed, and the soil appeared to be shallow. Therefore, no shovel tests were excavated. One area of interest was encountered. This was a series of three bridges crossing the upper reaches of a tributary of Rough Creek with old guardrails made of cement. These bridges were photographed (Appendix I), but they were not recorded as a historic site.

RESULTS AND CONCLUSIONS

The records check at TARL revealed that no professional investigations have been conducted in the project area, and no archaeological sites are known to exist within either of the two areas investigated during this study. No evidence of prehistoric occupation was found in either area. In Area A, there are no major stream crossings. The entire area is within an upland setting that is relatively level with higher elevations in the distance. Area A is an upland divide between two major drainages. They are Pecan Bayou to the west and Hog Creek to the east. It is along these watercourses that many of the prehistoric sites in Brown County have been identified. The soils throughout Area A are shallow and rocky. No exposed chert cobbles were observed in this area, which is viewed as a very low probability area for a significant prehistoric site. Any site in Area A would undoubtedly be restricted to the surface. Virtually the entire 3.83-mile segment was disturbed through road construction or scraping within the fence line, probably by the landowner as a firebreak. This disturbance would destroy the context of any site within these areas. Figure 4 illustrates the degree of disturbance in Area A that is typical of the entire segment. Area B contains one high probability area – the crossing of the water line at Rough Creek. This 8.56-mile segment follows Farm-to-Market Road 45 that was examined in 1991 by archaeologists from the Texas Department of Transportation (1991) and county roads 236, 239, 264, and 265. The area most likely to contain an archaeological site is the segment along County Road 239. Here, part of the water line passes through a divide flanked on both sides by steep hills. The soil is rocky, but no chert nodules or burned rock were observed. The soil at Rough Creek floods frequently so it is not a likely setting for a permanent campsite. Also, the area where the water line crosses the creek is actually the upper reaches of a tributary of the main channel of Rough Creek. A review of past work in the county by archaeologists from Texas A&M University (Baxter and Shafer 1975; Shafer 1975; Shafer et al. 1975a, 1975b; Shafer et al. 1976) determined that the upper reaches of tributaries were utilized on an occasional or intermittent basis. Figure 5 depicts a typical view of the right-of-way along Area B where the water line will be installed, and Figure 6 illustrates the rocky soils encountered on the surface in Area B. Historic sites can appear virtually anywhere on the landscape. Three bridges were observed at the crossing of Rough Creek and two low-lying areas that flood regularly. The age of these bridges is not known, but BVRA believes that they were probably constructed during the early part of the 20th century when the county road was built or improved. The three bridges are depicted in Appendix I.



Figure 4. Disturbance along County Road 118



Figure 5. Road Right-of-Way along County Road 239



Figure 6. Rocky Soils along County Road 239

RECOMMENDATIONS

No archaeological sites were found during the archaeological survey for the Brookesmith SUD. The three historic bridges represent events associated with the construction of County Road 329, but they are not considered worthy of being protected. It is, therefore, recommended that construction be allowed to proceed as planned without further consultation with the THC. Should the construction plans change to include a greater area that can be viewed as a likely setting for a prehistoric site, the THC must be notified in case additional survey by a professional archaeologist is warranted. Also, if cultural materials are unearthed during construction, all work in the area of the find must stop until the THC can evaluate the situation. This study conformed to the Minimum Survey Standards as defined by the Archaeology Division of the THC.

REFERENCES CITED

- Anthony, Dana, and David O. Brown
2000 Lake Brownwood State Park, Brown County. In *1998 Annual Report to the Texas Historical Commission Antiquities Permit Number 1935*, pp. 103-126, Cultural Resources Program.
- Baxter, Edward P., and Harry J. Shafer
1975 *A Supplementary Archeological Survey Report of Floodwater Retarding Structure No. 2A, Brownwood Laterals Watershed*. Anthropology Laboratory, Report Number 16, Texas A&M University,
- Biesaat, Lynne A., Wayne R. Roberson, and Lisa Clinton Spotts
1985 *Prehistoric Archeological Sites in Texas: A Statistical Overview*. Office of the State Archeologist, Special Report 28, Texas Historical Commission.
- Blair, W. Frank
1950 The Biotic Provinces of Texas. *The Texas Journal of Science* 2(1):93-117.
- Campbell, Thomas Nolan
1952 Early Archaeological Excavations in the Vicinity of Brownwood, Texas. *The Record* 10(3):10-14.

1960 Texas Archeology: A Guide to the Literature. *Bulletin of the Texas Archeological Society* 29:117-254.
- Clower, Dennis F.
1980 *Soil Survey of Brown and Mills Counties, Texas*. United States Department of Agriculture, Soil Conservation Service, in cooperation with the Texas Agricultural Experiment Station.
- Henderson, Jerry
1999 An Archeological Survey of Proposed Water System Improvements, Brookesmith Special Utility District, Brown County, Texas. Texas Water Development Board.
- Hoffrichter, Norma, and Beth Ogden Davis
1981 TAS Field School, Cross-Cut, Texas, 1979. Published by the Texas Archeological Society Field School Committee.

Humphreys, Gerald

1979 Gerald Humphreys Reports. *Texas Archeology* 23(3):8-13,

1980 Humphreys Discusses Field School. *Texas Archeology* 24(2):1-3.

Kenmotsu, Nancy Adele, and Timothy K. Perttula

1993 *Archeology in the Eastern Planning Region, Texas: A Planning Document*. Department of Antiquities Protection, Cultural Resource Management Report 3, Texas Historical Commission.

Ray, Cyrus N.

1933 The Brownwood Skull. *Bulletin of the Texas Archeological and Paleontological Society* 5:95-98.

Shafer, Harry J.

1975 *An Archeological Survey Report of Floodwater Retarding Structure 26-A1, Brownwood Laterals Watershed*. Texas A&M University, Anthropology Laboratory, Report Number 26.

Shafer, Harry J., Edward P. Baxter, and James Phil Dering

1975a *Brownwood Laterals Watershed, Brown County, Texas: Archeological Surveys of Floodwater Retarding Structures 1, 2, 2A, 5, 18, 24, and 26*. Texas A&M University, Anthropology Laboratory, Report Number 13.

1975b *Upper Pecan Bayou Watershed, Brown County, Texas: Archeological Survey of Floodwater Retarding Structure No. 30*. Texas A&M University, Anthropology Laboratory, Report Number 11.

Shafer, Harry J., Edward P. Baxter, and Thomas B. Stearns

1976 *Archeological Assessment of Upper Pecan Bayou and Brownwood Laterals Watersheds, Brown County, Texas*. Texas A&M University, Anthropology, Report Number 29.

Skinner, S. Alan

2000 *An Archaeological Evaluation of System Improvements for the Brookesmith Special Utility District*. AR Consultants, Inc., Cultural Resources Report 2000-22.

2002 *An Archaeological Survey of System Improvements for the Brookesmith Special Utility District*. AR Consultants, Inc., Cultural Resources Report 2002-9.

2005 *An Archaeological Survey for the Brookesmith SUD, Brown County, Texas*. AR Consultants, Inc., Cultural Resources Report 2005-32.

Teak, Anne, and R. K. Eck

1979 1979 Field School. *Texas Archeology* 23(3):2-4.

Texas Department of Transportation

1991 Archeological Resources Survey Report: FM 45 from FM 2126
Southward to US 190, Cultural Resources Assessment, Brown
County.

APPENDIX I
HISTORIC BRIDGE PHOTOGRAPHS



Bridge Crossing at Rough Creek



Low Water Crossing West of Creek



Low Water Crossing East of Creek