

AN ARCHAEOLOGICAL SURVEY OF THE POLK COUNTY
LANDFILL EXPANSION IN CENTRAL POLK COUNTY, TEXAS

Texas Antiquities Permit Number 2636

By

William E. Moore

Brazos Valley Research Associates

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AN ARCHAEOLOGICAL SURVEY OF THE POLK COUNTY
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Brazos Valley Research Associates

Project Number 01-12

Principal Investigator: William E. Moore

Prepared for

Polk County, Texas
P.O. Box 528
Leggett, Texas 77350

Prepared by

Brazos Valley Research Associates
813 Beck Street
Bryan, Texas 77803

ABSTRACT

A Phase I archaeological survey of approximately 60 acres at the site of a proposed landfill expansion in central Polk County, Texas was conducted in July 2001 by Brazos Valley Research Associates (BVRA) under antiquities permit 2636 issued by the Archeology Division Texas, Historical Commission. The Principal Investigator was William E. Moore. Virtually the entire area was disturbed through prior logging activities. No archaeological sites were found. It is recommended that development be allowed to proceed as planned.

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INTRODUCTION

An archaeological survey of approximately 60 acres at the site of the proposed Polk County Landfill Expansion project in central Polk County, Texas (Figure 1) was conducted on July 5-6, 2001 by BVRA under antiquities permit 2636 issued by the Archeology Division, Texas Historical Commission. The field crew consisted of William E. Moore, James E. Warren (Project Archaeologist) and two Field Assistants (Art Romine and Tom McMasters). The project area is depicted on the 7.5' topographic quadrangle New Willard, Texas dated 1984 (Figure 2), and the project area showing the approximate location of shovel tests and disturbed areas appears as Figure 3.

Prior to entering the field, a records check was made at the Texas Archeological Research Laboratory (TARL) in order to identify all previously recorded sites, if any, in the project area and vicinity. No sites were found to be present within the project area. Significant archaeological sites are known to occur in the general area, specifically along Kickapoo Creek (now under Lake Livingston) and its tributaries to the south. Based on this records check and personal experience in the area by the Principal Investigator it appeared that there was a chance for the occurrence of archaeological sites in the project area. This assumption was strengthened by the presence of sandy uplands overlooking a tributary of Barnett Creek to the north. Based on the potential for archaeological sites in the project area Polk County retained BVRA to conduct a cultural resources survey. The project number assigned by BVRA is 01-12.

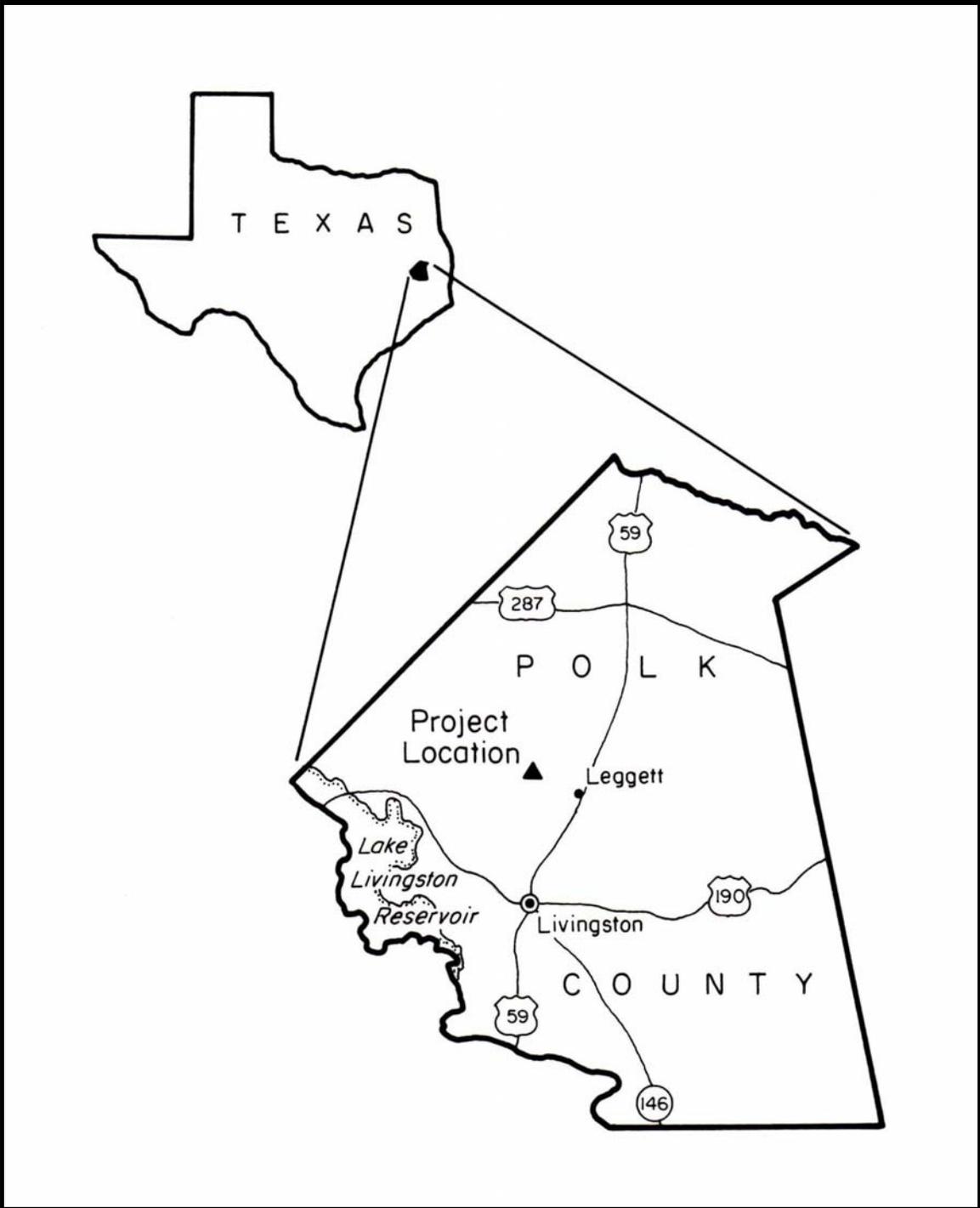


Figure 1. General Location Map

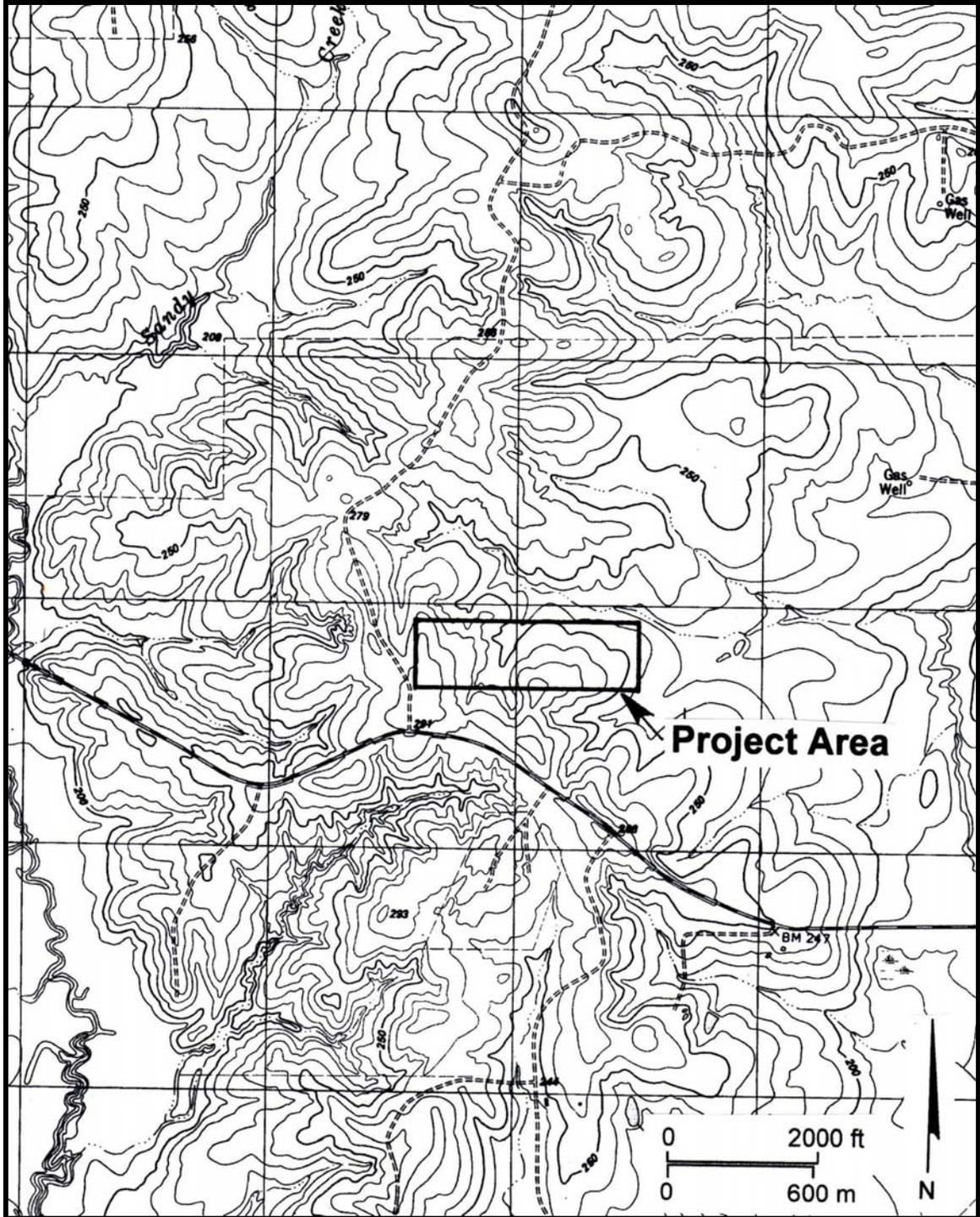


Figure 2. Project Area on Topographic Map

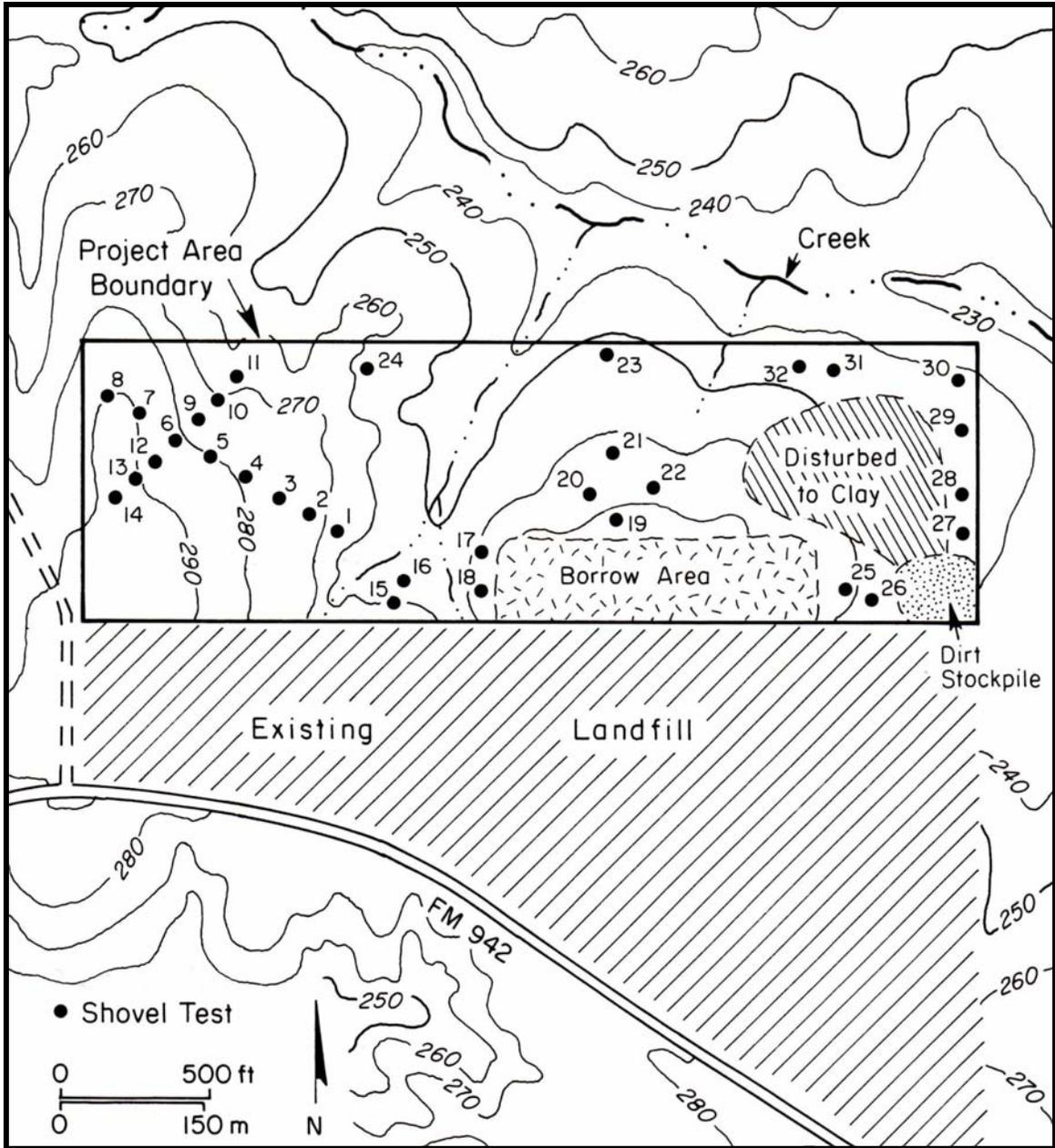


Figure 3. Project Area Map

FIELD METHODS

The Phase I survey was conducted utilizing the pedestrian survey method supported by shovel testing. During the field survey, the entire project area was examined for surface and subsurface evidence of archaeological sites with emphasis on those areas believed to be high probability for site occurrence. Virtually all of the project area had been cleared by logging; therefore, the surface exposure was excellent. In addition to land clearing, a borrow area, a dirt stockpile, a large area which had been disturbed to clay, and an artificial ditch were observed. These areas along with the approximate location of shovel tests are depicted on Figure 3.

The entire tract was walked by the survey crew in transects at 30 meter intervals; however, shovel tests were restricted to the areas not disturbed. All earth excavated during shovel testing was screened through 1/4 inch hardware cloth. In all, 32 shovel tests were dug throughout the project area (Appendix I). Each shovel test was 30 x 50 cm in size and was dug in arbitrary 10 cm levels. A backhoe was not considered necessary due to the lack of a floodplain in the project area.

No engineering map was provided by Polk County. Therefore, a field map was made (not to scale) with all locations of tests and disturbed areas shown as approximations. In addition to the topographic quadrangle, the soils book for Polk and San Jacinto counties was consulted during the survey (McEwen, et al. 1988). Figure 4 depicts the project area superimposed on the soils map.

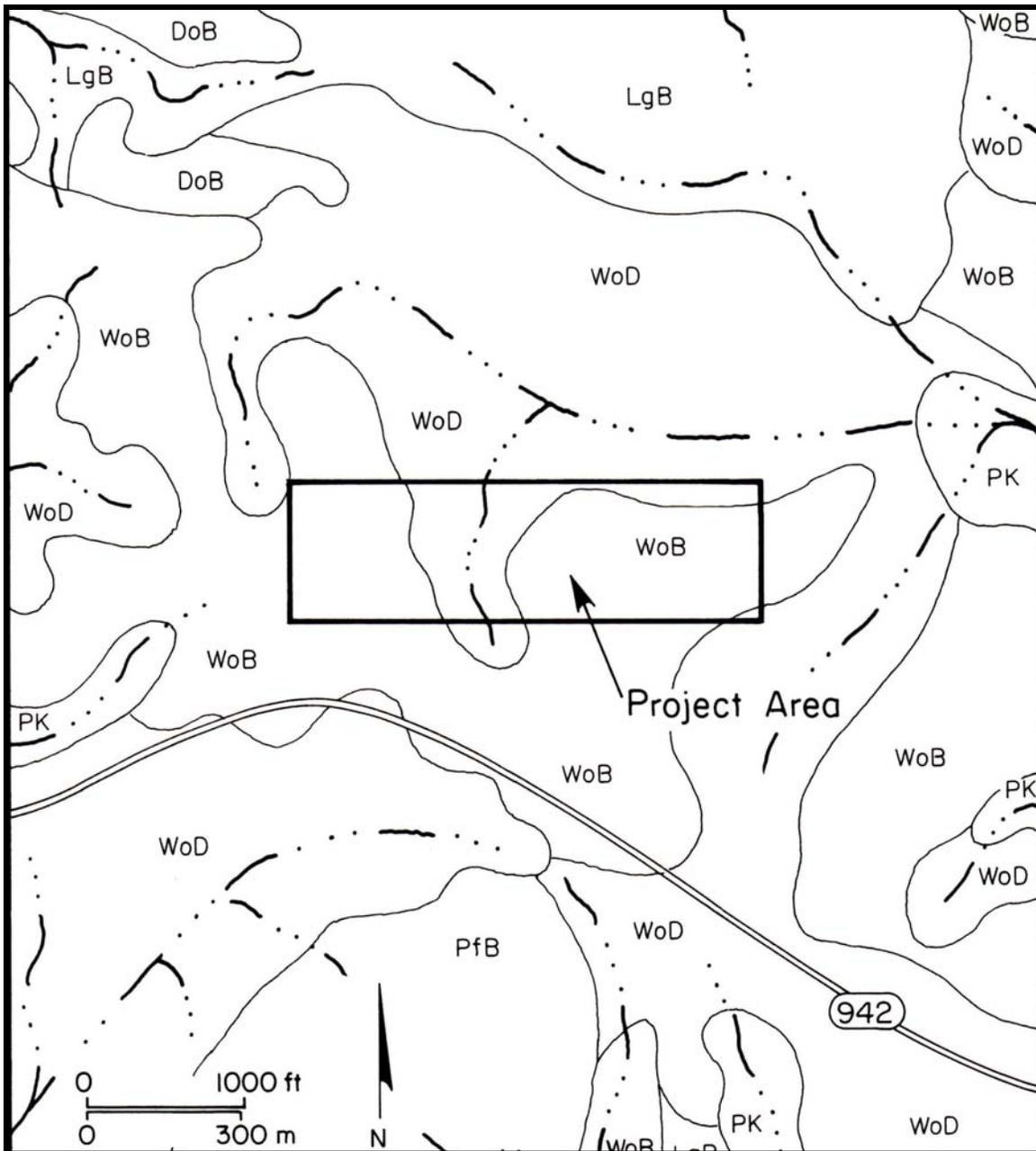


Figure 4. Project Area on Soils Map

ARCHAEOLOGICAL BACKGROUND

The project area is located in a county that contains significant archaeological sites, both prehistoric and historic. A file search conducted at TARL in Austin, Texas revealed no previously recorded sites in the project area. Several sites have been reported south of the area along Lake Livingston. No sites in the vicinity are listed in the National Register of Historic Places 1993 update or as State Archeological Landmarks. There is, however, a State Archeological Landmark referred to the Lake Livingston Recreation Area to the south of the current project area, but it appears that only one site (41PK21) may be included.

According to a planning document prepared by the Department of Antiquities Protection (now the Archeology Division), the project area is located in the Southeast Texas Archeological Study Region of the Eastern Planning Region (Kenmotsu and Perttula 1993:Figure 1.1.2). At the time this document was prepared Polk County contained 0.001 to 0.1 sites per square mile. This is the lowest recorded site density of any county in Texas except for two counties with no recorded sites.

The three archeological regions in the Eastern Planning Region exhibit greater internal environmental homogeneity than does the planning region as a whole and is characterized by considerable cultural diversity, both through time and space (Kenmotsu and Perttula 1993:13). Early cultures in the region exhibit a greater degree of similarity in lifeways than was the case for later cultures. These early groups were probably hunters and gatherers utilizing site areas for brief periods based on the widespread distribution of point styles, the frequent occurrence of exotic raw materials, and the meagerness of occupational debris found at excavated campsites (Kenmotsu and Perttula 1993:13-14). Through time, group territories appear to have been reduced, perhaps due to increased population. As territoriality of groups increased, greater internal diversity is evidenced in the archeological record of the region (Kenmotsu and Perttula 1993:14). The diversity in the archeological record becomes quite pronounced by the Late Prehistoric period, enabling researchers to distinguish the Late Prehistoric from earlier periods. The discussion above was taken largely from the planning document by the Department of Antiquities Protection.

Much of our current knowledge of the prehistory and history of Polk County has resulted from cultural resource studies, primarily involving Lake Livingston. The first major project to involve the reservoir area was the initial survey (Nunley 1963), testing (McClurkan 1967), and mitigation (McClurkan 1968) of the proposed lake area by the Texas Archeological Salvage Project (TASP) in the 1960s. Since that time a number of small projects have been conducted. Typically, these are small area surveys by private contractors working with the Corps of Engineers (COE) or in-house projects by COE staff.

Since the TASP investigations in the 1960s, only one major excavation project has been conducted in the county. The Crawford site (41PK69) was excavated by the Archeological Research Laboratory, Texas A&M University, under the direction of H. Blaine Ensor and David L. Carlson (1988) in 1984-1985. Their work provided evidence that deeply stratified upland sites exist within the region. The Crawford site was determined to have been inhabited during much of the Holocene as Early, Middle, and Late Archaic occupations, as well as Early and Late Ceramic Period components, were defined. The data suggest that the latest deposits are Caddo related, and some occupational debris may be attributed to the historic Bidai (Ensor and Carlson 1988:iii). The interested researcher is advised to consult the above-mentioned sources for previous work in Polk County.

RESULTS AND RECOMMENDATIONS

A 100% pedestrian survey of the 60 acre project area did not locate any archaeological sites. The project area consists of uplands adjacent to a tributary of Barnett Creek to the north. Two small tributaries, probably erosional gullies, enter the project area from this tributary. The area contains sandy soils consisting of two types, Woodville fine sandy loam, 1 to 5% slopes (WoB) and Woodville fine sandy loam, 5 to 12% slopes (WoD) (McEwen et al. 1988:Sheet 28). The WoD soils are found along the gullies, while the WoB soils comprise the remainder of the project area. The WoB soils are a gently sloping soil found on convex upland slopes. Typically, the surface layer is a fine sandy loam to a depth of about six inches, below which is clay subsoil to depth of 70 inches (McEwen et al. 1988:51-52). The WoD soils, found strictly along the creek, are a sloping to strongly sloping soil on convex side slopes on uplands. Typically, the surface layer is a brown fine sandy loam about five inches thick with mottled brown and red clay subsoil to depth of 65 inches (McEwen et al. 1988:52). Shovel testing revealed a shallow fine sandy loam throughout most of the project area. In some areas, however, the shallow soils were the result of scraping of the original land surface by heavy machinery.

Those areas believed to be the least disturbed received the most attention in terms of shovel testing. A relatively undisturbed hill in the northwest corner of the project area was examined by digging 14 shovel tests. The soil depth was found to be very shallow with depths (fine sandy loam to clay) varying from 5 to 25 cm. This does not appear to be a suitable location for a significant prehistoric site. It was estimated by the survey crew that 20 acres within the project area were undisturbed at the time of the survey, 30 acres were disturbed, and 10 acres were associated with the active borrow pit.

It is the opinion of BVRA that no significant archaeological sites are present within the project area, and it is recommended that Polk County be allowed to proceed with development as planned. It is always possible that cultural resources are missed during any archaeological survey. Should, however, evidence of a site be encountered during construction all work should cease until a decision can be made by the Archeology Division, Texas Historical Commission in consultation with representatives of Polk County and Brazos Valley Research Associates.

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Appendix I: Shovel Test Log

Test	Depth	Results
1	20 cm	fine sandy loam over red clay
2	25 cm	fine sandy loam over red clay
3	25 cm	fine sandy loam over red clay
4	5 cm	fine sandy loam over red clay
5	5 cm	fine sandy loam over red clay
6	5 cm	fine sandy loam over red clay
7	5 cm	fine sandy loam over red clay
8	15 cm	fine sandy loam over red clay
9	10 cm	fine sandy loam over red clay
10	15 cm	fine sandy loam over red clay
11	10 cm	fine sandy loam over red clay
12	15 cm	fine sandy loam over red clay
13	15 cm	fine sandy loam over red clay
14	20 cm	fine sandy loam over gray clay
15	20 cm	fine sandy loam over yellow clay
16	20 cm	fine sandy loam over yellow clay
17	35 cm	fine sandy loam over yellow clay
18	35 cm	fine sandy loam over yellow clay
19	20 cm	sandy loam over gray clay
20	20 cm	fine sandy loam over gray clay

Test	Depth	Results
21	15 cm	fine sandy loam over yellow clay
22	20 cm	fine sandy loam over yellow clay
23	20 cm	fine sandy loam over yellow clay
24	15 cm	fine sandy loam over yellow clay
25	60 cm	fill dirt to 30 cm; yellow clay at 30 cm
26	20 cm	fine sandy loam over yellow clay
27	30 cm	fine sandy loam over yellow clay
28	10 cm	fine sandy loam over red clay
29	10 cm	fine sandy loam over yellow clay
30	10 cm	fine sandy loam over yellow clay
31	70 cm	fine sandy loam over yellow clay
32	50 cm	fine sandy loam over yellow clay
