ARCHAEOLOGICAL SURVEY OF THE PROPOSED SANFORD RAW WATER RESERVOIR IN LEE COUNTY, NORTH CAROLINA

by

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MANAGEMENT SUMMARY

During July, 1990, The Research Laboratories of Anthropology at the University of North Carolina - Chapel Hill surveyed the proposed Sanford raw water reservoir (Clearinghouse Number ER90-8250). The proposed project area covers 30 acres and will be built across the street from the existing City of Sanford Water Treatment Plant on Poplar Springs Church Road (SR 1537), in Lee County. The project was initiated at the request of Hazen and Sawyer, P.C., and resulted in the recording of no new archaeological sites. Therefore, the proposed water reservoir will not adversely affect any archaeological resources and clearance is recommended for the project.

INTRODUCTION

At the request of Hazen and Sawyer, P.C., H. Trawick Ward and I. Randolph Daniel, Jr. of the Research Laboratories of Anthropology at the University of North Carolina-Chapel Hill spent four person-days during July surveying approximately 30 acres of the proposed Sanford raw water reservoir (Clearinghouse Number ER90-8250). The proposed reservoir will be built across the street from the existing City of Sanford Water Treatment Plant on Poplar Springs Church Road (SR 1537), in Lee County (Figure 1).

The objectives of the survey were to locate and evaluate the research potential of archaeological sites within the proposed project area. A "site", as defined here, refers to at least two spatially related artifacts or features that are indicative of prehistoric or historic activities. This somewhat broad definition only excludes the isolated "spot find" which could result from a myriad of idiosyncratic or fortuitous events.

The evaluation of a site's potential or significance was guided by criteria of the National Register of Historic Places which state that archaeological resources are considered significant or potentially eligible for inclusion in the National Register if they have "yielded, or may be likely to yield, information important to prehistory or history" (36 CFR Part 800.1). Although somewhat vague, it appears that, minimally, a site should have sufficient integrity to allow some level of behavioral interpretation beyond just temporal placement.

As a result of this survey, no archaeological sites were located within the proposed project area. An isolated artifact, however, was discovered on the existing pipeline corridor but well outside the proposed project area. Therefore, the proposed water reservoir will not adversely affect any archaeological resources.

PREHISTORIC AND HISTORIC BACKGROUND

Archaeologists usually divide the archaeological cultures of North Carolina into four periods: Paleoindian, Archaic, Woodland, and Historic. The Archaic period is further broken down into three subperiods--Early, Middle, and Late--which are based on the forms and methods of manufacturing chipped-stone tools, particularly projectile points. The Woodland period is divided into several phases. Along the northern Fall Line, the Vincent, Clements, Dan River, and Gaston phases have been defined (Coe 1964). These are related to the Deep Creek, Mt. Pleasant, and Cashie phases of the northeast Coastal Plain (Phelps 1983). In the central Piedmont, the Badin, Yadkin, Uwharrie, Dan River, and Pee Dee phases have been identified (Coe 1952, 1964). The Historic period is represented in the northern Piedmont by the Early, Middle, and Late Saratown phases while in the central Piedmont, the Hillsboro, Mitchum, and Fredricks phases describe the archaeological remains of the historic Siouan tribes (Davis

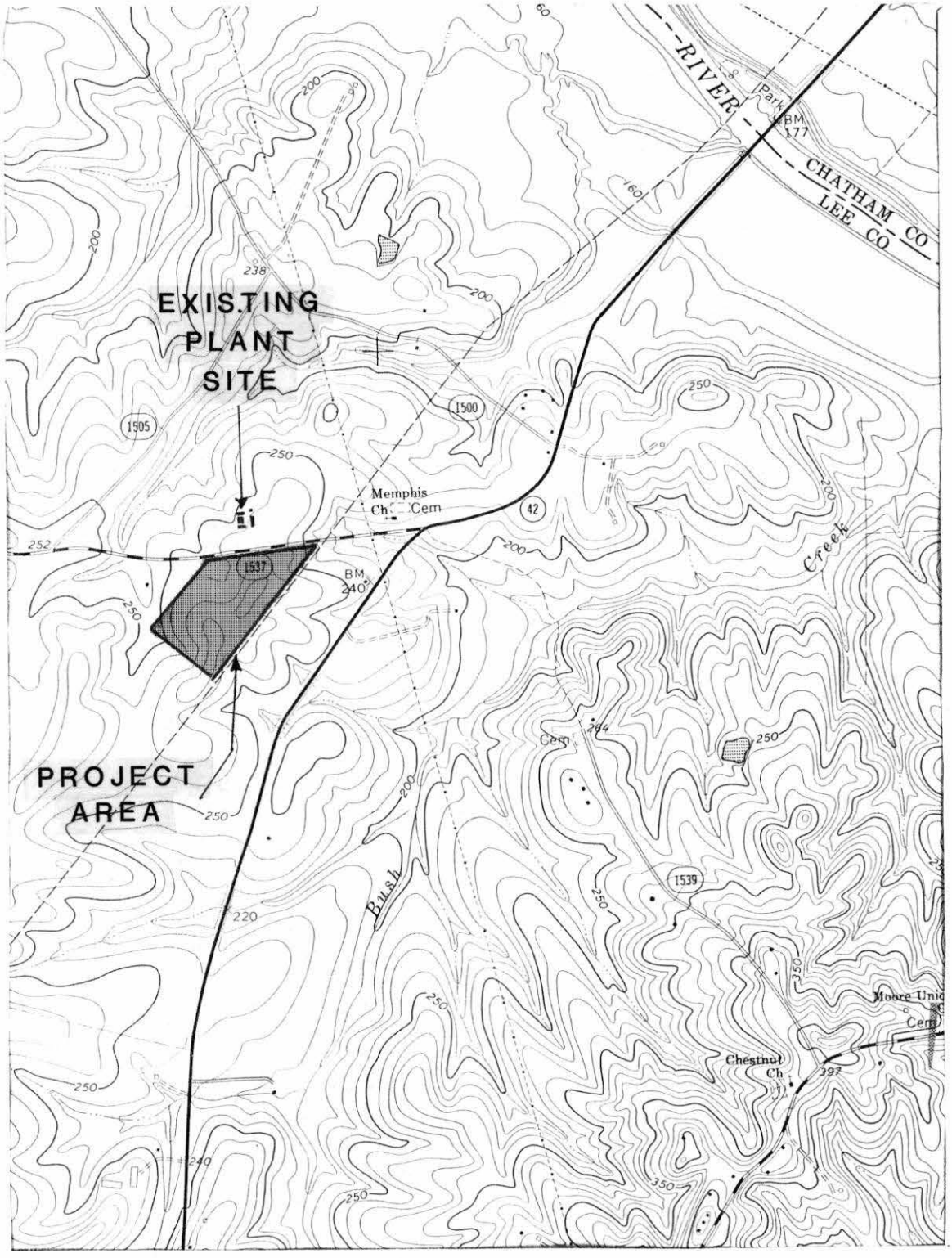

Figure 1. Map Locating Project Area (Shaded Area).
(Scale 1" = 2000')

and Ward 1988). Styles of pottery, as well as other material culture traits, provide indices for differentiating these Woodland and Historic period cultures.

The Paleoindian period is generally believed to represent the earliest significant human population in North Carolina and North America in general. It is characterized by a lanceolate shaped fluted projectile point that dates from about 9,500 B.C. to 9,000 B.C. and is generally referred to as a Clovis point (Haynes et al. 1984). It should be noted , however, that these dates come from sites located in the Southwest and no fluted point sites have yet been radiocarbon dated in the Southeast. Although some eastern fluted points may date as early as there Southwestern counterparts, this determination remains unknown (Haynes et al. 1984). There is sufficient stylisitic variability in eastern fluted points that might indicate spatial and temporal differences greater than in the Southwest (Meltzer 1988). Fluted points are relatively rare in North Carolina and comprise only isolated surface finds.

More numerous in the state are those points represented by the Hardaway complex, which is characterized in its earliest form by a lanceolate projectile point with a thin concave base (Coe 1964). This early variety evolved into a Dalton-like point with a somewhat lanceolate shape, deeply concave, eared base and serrated blade edges. The terminal Hardaway phase is represented by a projectile point with small U-shaped side notches and a concave recurved base. Although no radiocarbon dates have been obtained from a Hardaway period site, some archaeologists believe that the Hardaway complex dates as early as fluted points (Coe 1964), while others believe that Hardaway points date somewhat later, circa 7,900 to 8,500 B.C. (Goodyear 1982).

The succeeding Archaic period is also believed to represent a time of hunting and gathering adaptations, however, human populations increased and settlements were adapted to more modern flora, fauna, and climatic conditions. The Early Archaic period is represented by the Palmer and Kirk projectile point styles. Palmer points are rather small, averaging 35 mm long and 20 mm wide. These points typically have serrated triangular blades, notched corners, and a straight ground base. Kirk specimens are larger, with some varieties being twice as large as Palmer points. Although Kirk points also have triangular, serrated blades, the bases are straight to slightly rounded and unground. No radiocarbon dates exist for Palmer and Kirk points in North Carolina, however, similar points have been dated in Tennessee between 6,800-8,000 B.C. (Chapman 1985). Corner notching, characteristic of early Kirk specimens, is replaced by broad square stems in later varieties.

The Middle Archaic is marked by the appearance of a series of square and contracting stemmed points. These include Stanly, Morrow Mountain, and Guilford points (Coe 1964). During the Stanly phase blades are broad and triangular with short narrow stems, although the basic form resembles the later Kirk Stemmed

variety. The Stanly stone tool assemblage also contains the first evidence for extensive use of polished stone implements.

A continuity of projectile point styles was interrupted at the end of the Stanly phase by the introduction of two new types, both of which appear stylistically to be unrelated to the previous sequence. The earliest type is represented by the Morrow Mountain point which has a small triangular blade and a short tapering stem. Following the Morrow Mountain phase is the appearance of the long thick lanceolate Guilford point. This type is widespread over central North Carolina but not frequently found outside the area. Stanly points date somewhere between 6,000 to 5,000 B.C., while Morrow Mountain points probably date between 5,000 to 4,000 B.C. (Chapman 1976). Finally, Guilford points probably date somewhere between 4,000 to 3,000 B.P. (Coe 1964).

The Late Archaic period is widely known for its relatively large broad bladed, stemmed projectile points, characterized by the Savannah River complex. Other characteristic stone tools of this period include full-gooved axes and soapstone bowls. Savannah River points date to approximately 3,000 B.P.

The Woodland period began with the introduction of pottery and horticulture and lasted in most areas of North Carolina until European contact. The Badin and Vincent complexes represent the earliest Woodland occupations in the Piedmont. The pottery of both phases is well made, with a fine sand or non-tempered paste, and usually has a cord-marked or fabric-impressed exterior surface. Little is known about these Early Woodland cultures (ca. 1,000 B.C. to A.D. 500) except that horticulture became increasingly important, and small villages or hamlets probably were occupied on a semi-permanent basis.

In the survey area, the Middle and Late Woodland periods (ca. A.D. 500 to 1500) are defined by the Yadkin, Uwharrie, Dan River and Pee Dee phases. The shift from Early to Middle Woodland, though not abrupt, is most apparent in the respective ceramic traditions. The fine sand-tempered Early Woodland sherds were gradually replaced by crushed-quartz tempered types of the Yadkin and Uwharrie phases. However, during the middle part of the Late Woodland period, ca. A.D. 1350, dramatic changes took place in the immediate vicinity of the survey area (DePratter and Judge 1987).

People from the south, perhaps from as far away as northern Georgia, pushed into south-central North Carolina, bringing with them an entirely different culture. Not only did they introduce a totally different ceramic tradition but more importantly, they built temple mounds and elaborate ceremonial centers reminiscent of the complex Mississippian societies of the greater Southeast (Coe 1952). These Pee Dee people lived in stratified societies with warrior, priest, and chiefly classes controlling and organizing the daily lives of the common farmers. The most elaborate of their sites has been preserved in Town Creek Indian Mound

State Park, located near Mt. Gilead.

The triumphant invasion of Pee Dee culture was shortlived, however, and by A.D. 1500, continuity returned to the Late Woodland period with the Caraway phase. The only Pee Dee trait to survive was a modified form of the distinctive complicated stamped pottery, but even this was blended with a more traditional Piedmont ceramic assemblage of net impressed and plain wares.

By this time, agriculture was firmly established. Corn, beans, and squash were being grown to support tribal populations that lived in established villages along the major rivers and tributaries. Hunting, however, continued to be important and would remain so as long as Native Americans occupied the region.

During the Historic period, the project area was probably occupied by Siouan-speaking Catawba and Sara Indians living in close proximity to the Iroquois-speaking Tuscarora of the Coastal Plain. Shortly after the end of the Tuscarora War in 1714, most of the former moved into South Carolina, whereas the latter migrated to join their linguistic cousins in New York.

John Lawson, during his epic journey from Charleston to Pamlico Sound in 1700-1701, was one of the first Europeans to explore the survey area. Lawson's keen eye and consummate literary talent provide us with a vivid description of the land and its native inhabitants. As he journeyed from South Carolina into present-day North Carolina, Lawson stated that the land was "thick" with Indian towns with "no barren Land being found amongst them." He spent the night with the "Esaw" and "Kadapau" Indians, who were no doubt Catawbas, and met a trader named Stewart who had heard of his coming 20 days earlier. Lawson was duly impressed that news of his journey should "fly so swiftly among these People" (Lefler 1967:49).

With the ultimate intrusion of Europeans on the Piedmont, entire tribes and villages were forced to move great distances and to combine and recombine with one another to form new social and political alliances. A diverse subsistence economy was modified to accommodate European trade, and ancient social units became obsolete. Within this web of change, elements of Christianity were woven through the fabric of native religions. In short, the aboriginal Siouan clusters of the Piedmont rapidly and resolutely moved toward ultimate extinction.

Lee County is one of the newest formed counties in the state, having been formed in 1908 from sections of Moore and Chatham Counties. Some of the earliest white settlers were people of Scotch descent who traveled up the Cape Fear River Valley from Wilmington and established residence prior to the Revolutionary War. The current residents are mainly descendants of these folk and others who have moved in from nearby counties (Perkins and Goldston 1933).

Relatively little is known about the archaeology of Lee

county. This is evidenced by the less than one dozen archaeological reports written within the last 15 years that are on file in the State Archaeology office in Raleigh. These reports represent archaeological surveys totaling only about 300 acres out of a county total approximating 163,200 acres.

The predominant type of site reported from these surveys are small size lithic scatters with a low density of artifacts (e.g., Hargrove 1987, 1986, 1984; Lautzenheiser 1987; Moore and Ward 1978; Wilson 1979). Moreover, the cultural material is generally present on the surface or within a few inches of it. These sites have been located on low hill or ridgetops and are generally less than 1000 feet to the nearest water source. Some of these have produced diagnostic artifacts (i.e., projectile points) that date to the Middle and Late Archaic. The remainder of them have not produced temporally diagnostic material but the majority are also presumably Archaic. None of these sites, however, have been determined to be of National Register significance. Finally, it should be noted that the most extensive survey of the area is a proposed relocation of US 1 in Lee and Moore counties by Coastal Carolina Research, however, it is currently in progress and no published results are presently available.

Probably the most significant sites in the vicinity of the project area are located in adjacent Chatham County, along the banks of the Haw River, which are now inundated by B. Everett Jordan Dam and Lake. Intensive excavations at two sites there have revealed deeply stratified deposits representing some 10,000 years of Piedmont prehistory (Claggett and Cable 1982). This research is particularly noted for its attempts at using general ecological theory as a framework for understanding human adaptations from late Paleoindian through Woodland times.

SURVEY METHODS, CONDITIONS, AND RESULTS

The proposed water reservoir area covers approximately 30 acres and is presently wooded with predominately pine forest and some mixed hardwoods. The approximate eastern two-thirds of the project area has been selectively cut for timber in recent years, while the western third is still covered with moderate to dense tree cover. Elevations within the project area range from approximately 257 to 280 feet.

Topographically, the area is defined by five ridge tops that finger into the property. The most dominate one, both in horizontal extent and elevation, covers the southern third of the project site. The heavily eroded tips of two additional ridges of lesser elevation are cut by the eastern border of the property which is presently a gas pipeline corridor. The final two ridge tops are located at the northern edge of the property along SR 1537. The only other significant topographic feature is a broad swale along the northwest corner of the property near SR 1537. Finally, it should be noted that the nearest water sources are Bush creek approximately one-half mile to the east and an unnamed

creek at about the same distance north of the project area. Both creeks drain into the Cape Fear River which lies about 1.5 miles to the northeast.

Surface visibility ranged from good to poor and archaeological survey of the tract was accomplished by a walkover and visual inspection of surface exposures combined with judgmentally placed shovel tests. The areas judged highest in potential for containing archaeological and historical sites were the previously mentioned ridgetops, and it was there that survey efforts were focused (Figure 2). These areas were more intensively examined by digging 10 to 20 shovel tests (1 foot in diameter to an average depth of 10 inches), to examine these locations for indications of subsurface cultural materials as well as appraise stratigraphic conditions. Highly eroded soil profiles which generally consisted of a three to four inch humic zone underlain by approximately six inches of very compact tan sand grading into a yellowish-orange sandy soil containing heavy amounts of rock and quartz gravel were encountered in all areas tested. Good surface visibility was present in the recently timbered area which also contained two former roads. The remaining portion of the property exhibited poorer surface visibility due to vegetation cover; however, two transects created for access to soil boring locations provided cleared areas with good subsurface exposure.

No archaeological sites were located during the course of the survey. A single broken quartz biface, however, was discovered on the existing pipeline corridor well south of the project area. Given the highly eroded character of the project site, the distance from any permanent water source, and the extremely poor rocky soil, it is very unlikely that the area was used by prehistoric populations.

CONCLUSIONS AND RECOMMENDATIONS

Archaeological survey of the proposed Sanford raw water reservoir revealed no archaeological sites. Therefore, clearance is recommended for the project.

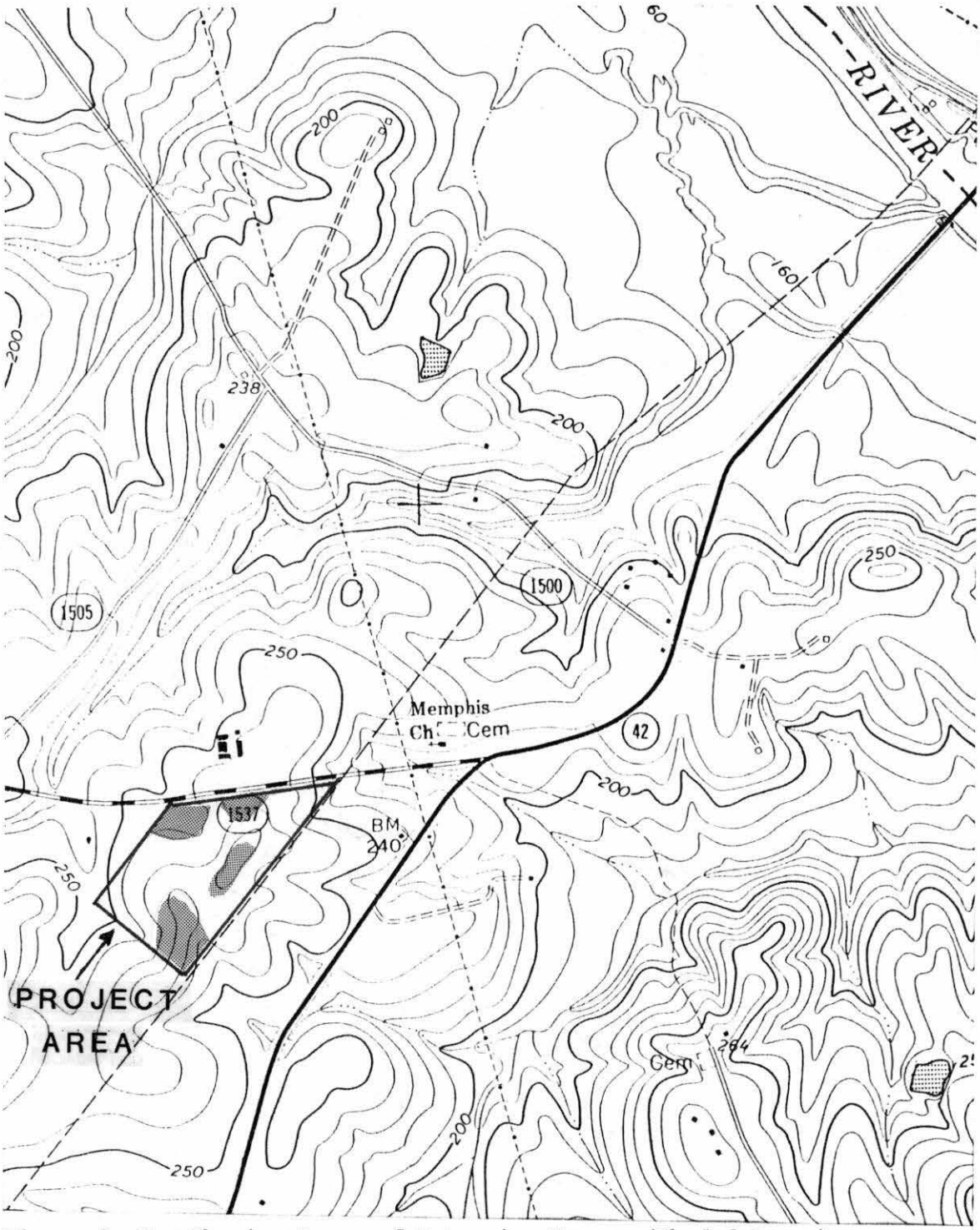

Figure 2. Map Showing Areas of Intensive Survey (Shaded Areas).
(Scale 1.41" = 2000')

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