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ARCHAEOLOGICAL RECONNAISSANCE OF PROPOSED KINGSTREE SEWER IMPROVEMENTS, WILLIAMSBURG COUNTY, SOUTH CAROLINA

by

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MANAGEMENT SUMMARY

The Kingstr waste Treatment improvement archeological reconnaissance survey was conducted at the request of the city of Kingstree, South Carolina to comply with the National Environmental Policy Act of 1969. A search of the Statewide Archeological Inventory at the Institute of Archeology and Anthropology, University of South Carolina, and an on-foot survey of the proposed sewer trunk and connecting lines was conducted on May 2 - 3, 1978 by James D. Scurry and James L. Michie of the Institute staff. A subsequent one day field survey was conducted on September 12, 1978 in order to examine portions of the sewer trunk line which were modified from the original project design.

It was impossible to survey completely all of the proposed sewer trunk due to the swampy conditions over much of the planned route. A non-random survey methodology was implemented, emphasizing those areas in which the sewer line was located on or near bluffs overlooking the swamp. The connecting lines were located on high ground overlooking the swamps. Most of these areas are presently in cultivation, allowing for excellent ground surface visibility.

Three sites (38WG9, 38WG37 and 38WG42) had been previously recorded in the vicinity of the proposed construction. On-ground inspection of the survey area revealed that one of the sites, 38WG9, was located outside of the project area. Recent alteration of the project plans removed the remaining two sites, 38WG37 and 38WG42, from the proposed project impact area.

Five sites (38WG50, 38WG51, 38WG52, 38WG53 and 38WG54) were located during the Kingstree 201 survey. Four of these, (38WG51, 38WG52, 38WG53 and 38WG54) are characterized by moderate density lithic and ceramic artifact surface scatters and represent occupation during the Archaic (8,000 to 1,000 B.C.), Woodland (1,000 B.C. to A.D. 1,000), Mississippian (A.D. 1,000 to A.D. 1,600) and Historic (early nineteenth-century) periods. The fifth site, 38WG50, is represented by an isolated ceramic fragment of unidentifiable type, but probably represents Woodland period (1,000 B.C. to A.D. 1,000) occupation.

Sites 38WG51, 38WG52, 38WG53 and 38WG54 are significant to South Carolina Coastal Plain prehistory in several respects. First, the presence of lithic debitage combined with ceramic fragments and projectile points suggest extensive occupations. Therefore, the probability of subsurface features such as house floors, storage pits, or burials is greater at these sites than at small lithic scatters characteristic of temporary hunting camps. The presence of archeological sites on bluffs overlooking a swamp environment fits well into current, on-going settlement-subsistence theory being developed at the Institute, which correlates larger occupational sites with ecotonal environments (Brockington n.d.; Greene and Brooks n.d.). Finally, these sites offer a good opportunity to examine culture change over a significant period of time within a specific geographical and environmental region.
The archeological sites recorded during the Kingstree survey represent significant occupation of the South Carolina Coastal Plain and should be protected by either conservation or preservation of those resources. Based on cost-effect analysis of the Kingstree project, recommendations are that alterations should be made in the project design to prevent probable destruction of these resources.

INTRODUCTION

The City of Kingstree in Williamsburg County, South Carolina is proposing the expansion of the existing waste treatment facilities and the construction of approximately 7.3 miles of sewer trunk and connecting lines. The purpose of the proposed work is to upgrade the existing facilities to meet the growing demand for waste water treatment.

The Institute of Archeology and Anthropology, University of South Carolina, conducted a reconnaissance survey of the proposed Kingstree sewer trunk and connecting lines on May 3 and September 12, 1978. The purposes of the survey were to locate and evaluate cultural resources within the project area and to make recommendations pertaining to the conservation or preservation of those resources. Project plans were altered to allow for expansion of the waste treatment plant within its present boundaries, therefore, no archeological survey was required for this area. Figure 1 indicates the southern half of the sewer trunk lines and connecting line C. Previously recorded archeological sites in the project area and sampling units 1-8 are also shown. Figure 2 shows the northern half of project area with the sites located during this survey, connecting lines A and B, and sampling units 9-13. Figure 2 also shows subsequent changes (units 14 and 15, in the project design).

Kingstree is located in the Coastal Plain of South Carolina at the confluence of the Black River and Broad Creek. The Coastal Plain was formed as a result of sediment deposition caused by fluctuating sea levels during the Tertiary and Quaternary geologic periods (Johnson, et al. 1974: 3). Swamps, similar to Broad Swamp in which the project area is located, often form as a result of poor drainage associated with low relief Coastal Plain landforms.

Archeological evidence indicates that the Coastal Plain of South Carolina has been occupied on a continuous basis for at least 12,000 years (Stephenson 1975). Cultural development proceeded from simple, hunting and gathering societies subsisting on Pleistocene megafauna and, later on, deer and small game, to more complex agricultural societies subsisting on maize and other New World domesticates (Willey 1966; Pfeiffer 1977: 416-432). European settlement of the area began during the 1730's with the establishment of Kingstree in 1732 (Boddie 1923).
FIGURE 2. Northern end of Kingstree sewer improvements project area.
Detailed cultural-historical chronologies, based mainly on archeological work done in Georgia and North Carolina (Coe 1964; Wauchope 1966; Willjdms 1968), have been established for portions of the southeastern United States. However, it is through surveys such as this, in line with the directed, on-going research of the Institute of Archeology and Anthropology, that our understanding of cultural systematics of the South Carolina Coastal Plain will be furthered.

**SURVEY METHODS**

Most of the area in which the trunk line is located is presently swamp. Based on past experience in the Coastal Plain of South Carolina, these low bottomland/swamp environments are very low in site potential. While archeological sites may exist in areas that have become swampy during recent times, our present survey methodology, given the time and budget constraints of this project, is incapable of locating these buried sites. Therefore, a nonrandom survey methodology was implemented, emphasizing those areas in which the trunk line was located on or near bluffs overlooking the swamp. The connecting lines (Figs. 1 & 2) were most frequently located on high ground overlooking the swamps. Most of these areas are presently in cultivation allowing excellent ground surface visibility.

Thirteen sample units were selected for examination based on the proximity of the trunk and connecting lines to bluffs or high ground overlooking the swamp. Subsequent project changes necessitated an additional day of field survey in which two additional sample units were selected for examination. Figures 1 and 2 show the locations of these sample units. Actual examination of the sample units consisted of an on-ground visual inspection of the area, checking exposed ground surface and stratigraphic cuts in the form of construction areas, road and drainage cuts.

Sample units 1-6, 9, and 15 were located in areas previously disturbed by commercial, housing and highway development. Sample area 7 was exposed by recent construction activity and erosion. Areas 8 and 10-12 were exposed by cultivation activities and offered the best opportunity to evaluate the potential cultural resources in the project area. Areas 13 and 14 were located in a creek bed or low bottomland and represented little potential impact to any resources in the area. Due to the excellent ground surface visibility in those areas of high potential impact, no subsurface testing was felt necessary for any of the sample areas.

The locations of sites discovered were plotted and appropriate site forms were completed. All artifacts visible on the ground surface were collected. Where the density of artifacts was too high to allow for 100% collection, a representative sample was collected with emphasis on diagnostic material which would help in the evaluation of significance and potential impact to the cultural resources.
Three archaeological sites (38WG9, 38WG37, 38WG42) have been previously recorded for the Kingstree Waste Treatment project area and five additional sites (38WG50, 38WG51, 38WG52, 38WG53 and 38WG54) were recorded during this survey.

38WG9. Located at the junction of U.S. Highway 52 and Black River, this underwater site is represented by historic bottles recovered in 1974. The present project design does not involve construction below water level of the Black River, therefore, this site is outside of the impact zone.

38WG37. This site is located south of Kingstree in a cultivated field off S.C. Highway 527 and adjacent to the Kingstree waste treatment facilities. This multicomponent site represents occupation during the Archaic (8000 to 1000 B.C.), Woodland (1000 B.C. to A.D. 1000), Mississippian (A.D. 1000 to A.D. 1600) and Historic (late eighteenth century) periods. Artifacts collected from the site consist of prehistoric and historic ceramic fragments, clay pipe fragments, several projectile points and lithic debitage. Alteration of the project design to allow for expansion of the waste treatment facilities within present boundaries removed this site from possible damage from construction. Present information indicates that 38WG37 is a significant site, eligible for the National Register. Any potential impact to the site should be carefully planned and monitored.

38WG42. This site is located on a bluff that overlooks the Black River, immediately adjacent to U.S. Highway 52, east of Kingstree. Artifacts from this site include prehistoric and historic ceramic fragments and slate lithic debitage and represent Woodland (1000 B.C. to A.D. 1000) and historic occupation in the area. Recent housing development construction has destroyed most of the site and the remaining portions are outside of the impact area of the Kingstree waste treatment project.

38WG50. This site is located in a cultivated field approximately one third of a mile from the junction of U.S. Highway 52 and Hodges Road (Fig. 2). The site is represented by an isolated ceramic fragment of unknown type, but probably represents a Woodland period (1000 B.C. to A.D. 1000) occupation. This site is outside of the current impact area.

38WG51. This site is located in a cultivated field, across a hedgerow north of 38WG50, approximately one third of a mile from the junction of U.S. Highway 52 and Hodges Road (Fig. 2). Material culture from this site consists of silicified slate and quartz lithic debitage and Woodland period (1000 B.C. to A.D. 1000) ceramic fragments. The full extent of this site could not be determined; however, cultural material was present in moderate density over most of the field. At present, 38WG51 is in immediate danger of probable destruction by construction of the connecting line designated as "A".

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38WG52. 38WG52 is located to the west of 38WG51 across a small drainage ditch and approximately one third of a mile from the junction of U.S. Highway 52 and Hodges Road. This site is situated in a cultivated field measuring approximately 1200 x 700 ft. Ceramic fragments, silicified slate, silicious sandstone, quartz and chert waste flakes occur heaviest in the center of the field, but extend in scattered clusters over most of the area. The ceramic fragments from the site are indicative of Woodland (1000 B.C. to A.D. 1000) and Mississippian (A.D. 100 to A.D. 1600) period occupations. While no diagnostic lithic tools were found, the lithic debitage probably represents Archaic (8000 to 1000 B.C.) and Woodland (1000 B.C. to A.D. 1000) period occupation. At present, 38WG52 is also in the immediate impact zone of connecting line "A".

38WG53. This site is located in a cultivated field which overlooks Broad swamp (see Fig. 2) and is represented by a light to moderate scatter of ceramic fragments, silicified slate, quartz and chert debitage and a light scatter of historic ceramic material over an area of 300 x 200 feet. Diagnostic lithic and ceramic artifacts reflect Archaic (8000 to 1000 B.C.), Woodland (1000 B.C. to A.D. 1000), Mississippian (A.D. 1000 to A.D. 1600) and Historic (eighteenth-nineteenth century) period occupation of the area. At present 38WG53 is located in the immediate impact zone of connecting line "B".

38WG54. This site is located in a cultivated field at the terminus of a field road directly adjacent to and approximately .6 miles from the junction of U.S. Highway 52 and County Road 382. This site measures approximately 800 x 250 ft. and is represented by a moderate scatter of lithic debitage (chert, sandstone, quartz, slate), ceramic fragments, and projectile point fragments. Lithic material indicative of Early (8000 to 5500 B.C.), Middle (5500 to 2500 B.C.) and Late (2500 to 1000 B.C.) Archaic as well as Woodland (1000 B.C. to A.D. 1000) period occupation is well represented at this site and combined with the presence of Woodland (1000 B.C. to A.D. 1000) and Mississippian (A.D. 1000 to A.D. 1600) ceramics is reflective of a fairly continuous occupation of the area from Early Archaic times up to the Historic Period. Heavy vegetation existing at the edges of the field prevented determination of the full extent of the site; however, the presence of cultural material at the edge of the woods would indicate that the site extends into the impact zone of the trunk line. Therefore, it is felt that at least a portion of this site is in possible danger of destruction from construction of the trunk line across the bluff edge.
ARCHEOLOGICAL SIGNIFICANCE AND RECOMMENDATIONS

Four sites (38WG51, 38WG52, 38WG53 and 38WG54) located within the impact zone of Kingstree waste treatment facilities improvement project are significant in terms of understanding South Carolina Coastal Plain history and prehistory, as outlined in the Management Summary.

While controlled surface collection and subsequent excavation of sites 38WG51, 38WG52, 38WG53 and 38WG54 would allow for testing of specific hypotheses concerning season of occupation, site function in terms of resource utilization and culture change over an extended period of time, costs of such mitigating studies are high. It is recommended here that specific changes be made in the project design to prevent probable destruction of these resources.

The placement of connecting line "A" in the field in which 38WG50 is located would prevent damage or destruction to sites 38WG51 and 38WG52. Site 38WG50 is represented by an isolated ceramic fragment which was a total collection of artifacts from the site. Given the excellent ground surface visibility in the area of 38WG50 it is felt that placement of connecting line A in this area would present no danger to archeological resources.

Connecting line B should be placed in the field drainage ditch located north of 38WG53. The use of this existing ditch would necessitate minimal design changes and would negate danger to the site.

According to the original project design, the trunk line at the northern end of the project area was scheduled to cut into site 38WG54. Alterations in the project design removed this site from the potential impact zone.

If such changes cannot be made in the project design and destruction of the sites is inevitable, a two phase mitigation plan should be implemented. In Phase 1 of the mitigation plan, intensive testing programs and controlled surface collections over each of the sites (38WG51, 38WG52, and 38WG53) should be implemented. This type of research strategy would allow for inferences to be made concerning seasonality of occupation, presence of subsurface features, number of individuals living at the site, function of the site in terms of the population economic system, and others. These intensive surface collections and small-scale excavations should take about 3 days at each site with an additional 5 days per site for analysis and preparation of a report. Subsequent time may be necessary for large scale excavations (Phase 2) depending on results of the Phase 1 investigation.
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