Archaeological Survey and Assessment of Four Wastewater Interceptor Routes in Garner, Wake Co., N.C. (EPA C370623-02)

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MANAGEMENT SUMMARY

During February 1985, the Research Laboratories of Anthropology surveyed and evaluated four wastewater treatment interceptor routes and two pump station sites. The project area lies south of Garner in Wake County (EPA C370623-02). The survey was initiated at the request of Municipal Engineering Services Company of Garner. The inceptors comprise a total of approximately 3.1 mi of 40-ft wide easement. Two pump station sites measure 150 ft on a side. Survey methods included a walkover inspection by a two-man team in conjunction with limited shovel testing. Only one prehistoric archaeological site was recorded, and it lies outside the impact zones. Consequently, archaeological clearance is recommended for the project.

INTRODUCTION

At the request of Municipal Engineering Services Company of Garner, the Research Laboratories of Anthropology conducted an archaeological survey of four wastewater interceptor routes totaling approximately 3.1 mi in length and 40 ft wide. Two associated pump station sites of 150 ft x 150 ft were also surveyed. The survey corridors were located immediately south of Garner (Figure 1). The Southside interceptor consists of 7,700 ft mostly paralleling Bagwell Branch. A pump station and small segment of the interceptor are also located on Swift Creek. On the west side of Bagwell Branch runs the short (ca. 1,000 ft) Bagwell Branch interceptor which intersects the Southside corridor. The Aversboro Road interceptor runs for approximately 2,500 ft along the east side of Reedy Creek between the Garner city limits and Lake Benson. The Aversboro Road pump station site is located at the southern end of this interceptor. The Buck Branch interceptor parallels the west side of Buck Branch and crosses the creek near Christian Road. From here, it follows Buck Branch along the east side until it terminates at Lake Benson. The Buck Branch interceptor is approximately 5,000 ft long.

The survey, completed on February 21, required 3 man-days of fieldwork. This was accomplished by a two-man team

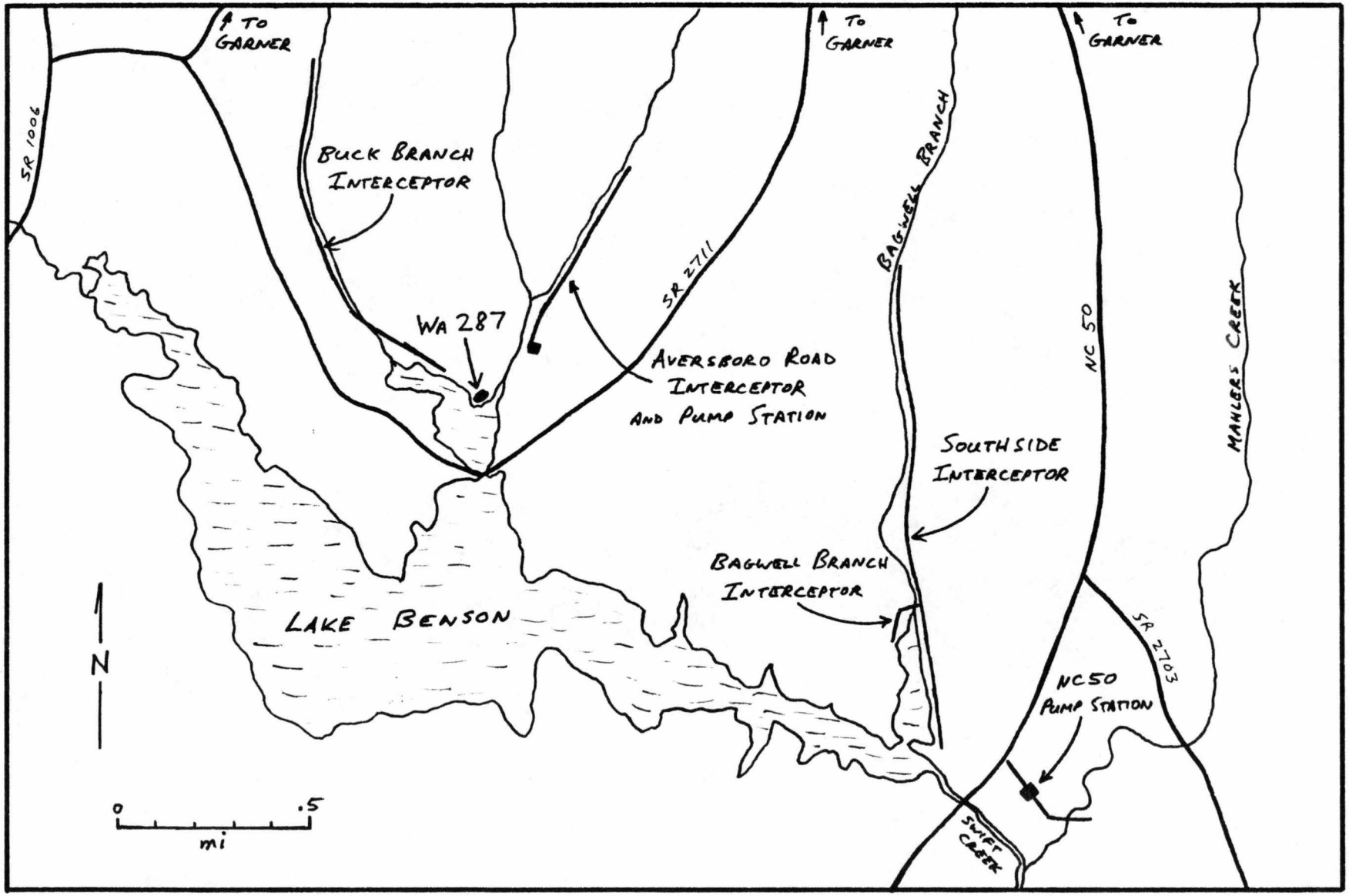

Figure 1. Map locating the proposed wastewater treatment facilities.

comprised of the authors. Survey conditions were very similar on all of the inceptor routes. They either occupy low swampy areas or run along the bases of steep slopes next to stream banks. None of the areas were considered to have a high potential for archaeological sites.

The first objective of the survey was to locate any sites that might be present. (A site, as defined here, refers to any spatially bounded artifact or group of artifacts and/or features that indicate prehistoric or historic activities.) A second goal was to determine the significance of any sites that might be recorded. The first objective was accomplished by a walk-over inspection and limited shovel testing of the interceptor routes and pump station sites. Determination of significance of archaeological sites was guided by Criterion D of the National Register, which states that archaeological resources are considered significant or potentially eligible for the National Register if they have "yielded, or may be likely to yield, information important to prehistory or history" (36 CFR 800.1).

ENVIRONMENTAL FACTORS AND ARCHAEOLOGICAL BACKGROUND

Wake County was formed in 1770 from portions of Orange, Johnston, and Cumberland counties. It comprises 864 mi^2 and

lies primarily within the Piedmont physiographic province. Approximately 10 percent of the county, along the southern border, falls within the Coastal Plain or, at least, within a transition seam separating the two provinces. The line of demarcation runs from the point where the Southern Railroad intersects the Wake-Johnston county line southwest through Holly Springs. The project area lines along the northern edge of this zone and has environmental qualities of both the Piedmont and Coastal Plain. A dendritic drainage system and gently rolling topography are qualities of the Piedmont, whereas, its generally sandy soils are more characteristic of the Coastal Plain.

Several archaeological surveys have been conducted in Wake County and over 250 sites have been recorded. Most of these sites date to the Archaic Period (8000 B.C. - 1000 B.C.) and are usually represented by thin artifact scatters that are confined to the surface and plowzone. In most instances, erosion and plowing have destroyed primary contexts at these sites.

Ward (1982) completed a survey close to the present project, and in an area topographically very similar to that of the present study. Eleven prehistoric sites were found. All these dated to the Archaic period, although one produced a fabric-impressed potsherd that probably reflects

Middle Woodland (ca. A.D. 500) activity. Remains dating to the Guilford phase of the Middle Archaic occurred with the most frequency. The sites were all situated in upland areas north of Swift Creek.

SURVEY METHODS AND RESULTS

Specific descriptions of survey methods and results at each of the four wastewater interceptor routes and two proposed pump station locations are presented below. All but the Bagwell Branch Interceptor were inspected in their entirety by pedestrian survey.

NC 50 Pump Station

This project site, measuring 150 ft square, is located on the valley slope of Swift Creek, approximately 1,000 ft NNW of the mouth of Mahlers Creek. At the time of survey, this area was covered with a dense stand of young pines and thick undergrowth. Undulating surface characteristics indicate prior disturbance, possibly bulldozing. Given these conditions, further evaluation was considered unnecessary.

Southside Interceptor

Two sections of the proposed Southside Interceptor were surveyed. The section associated with the NC 50 Pump Station, approximately 1,200 ft in length, crosses 400 ft of undulating

upland (adjacent to NC 50), 300 ft of valley slope (adjacent to the pump station site), and 500 ft of low, swampy creek valley. All areas were wooded and had very low surface visibility. The creek valley has been subjected to recent and extensive channelization. A single shovel test was placed at a level upland location adjacent to NC 50. This test indicated a very thin humic soil underlain by clay subsoil. No artifacts were found. Despite poor visibility, the topographic characteristics (channelization) of this section suggest a very low potential for significant archaeological remains.

The second section runs along the east side of Bagwell Branch for approximately 6,500 ft. The southern portion of this section (approximately 200 ft in length) is wooded and consists of level to gradually sloping land. Several erosional gullies and tree tip-ups were checked for archaeological remains; additionally, several shovel tests were excavated, all of which indicated minimal soil development and no archaeological remains.

The middle portion, running 2,000 ft north from the Bagwell Branch Interceptor connection, consists entirely of low, swampy land. No further assessment of this area was considered necessary.

Finally, the northern 2,500 ft of the Southside Interceptor corridor follows the low, narrow creek valley adjacent to several pastures with moderate surface visibility (10-30%). Although outside the corridor, the pastures were examined since they afforded favorable survey conditions. As with the southern portion of this interceptor corridor, gullies and tributary crossings were also examined. No archaeological remains were identified either within or adjacent to the corridor.

Bagwell Branch Interceptor

This corridor, 1,000 ft long, runs mostly along a steep hill slope flanking the west side of Bagwell Branch. Inspection of this corridor was limited to the point it crosses Bagwell Branch and connects to the Southside Interceptor. At this location, the land is low and swampy. Due to these conditions, no further assessment was conducted.

Aversboro Road Interceptor & Pump Station

This corridor, approximately 2,500 ft in length, runs along the east side of Reedy Creek and is comprised of alternating segments of narrow, low bottomland and moderately steep valley slope. The pump station site is also situated on low bottomland. The entire area was wooded at time of survey with very low surface visibility. Because of topographic conditions and a corresponding low potential for archaeological remains, no further assessment was necessary.

Buck Branch Interceptor

This interceptor corridor runs along the north and south sides of Buck Branch for approximately 5,000 ft and is comprised of alternating segments of low, often swampy bottomland and steep valley slope. The entire area was covered with pines and hardwoods when surveyed. Topographic conditions preclude further subsurface testing.

Although conditions throughout the project areas generally were not conducive to archaeological survey, it can be reasonably concluded that, because of the nature of the terrain that will be impacted, it is unlikely that the proposed wastewater facilities will adversely affect any significant cultural resources. Given these field observations, no further archaeological assessment is recommended.

SURVEY RESULTS

One small prehistoric site was located on a penninsula on the north side of Lake Benson (Figure 1). The penninsula is situated near the confluence of Reedy Creek and Buck Branch. The site lies outside the sewer interceptor corridors in a grassy area adjacent to a blueberry orchard. It measures roughly 100 ft x 150 ft and consists of a light surface scatter of Archaic and Woodland materials. Surface visibility was fair,

with approximately 25 percent of the ground being bare. Six small (1-ft x 1-ft) shovel tests were randomly dug across the site to assess the possibility of buried strata or features. These cuts uncovered a shallow 0.5 ft sandy loam top soil resting atop a sandy yellow subsoil. No evidence of subsurface deposits was present. Given the fact that the site has been cultivated for many years, erosion and deflation have no doubt destroyed any intact cultural remains. All visible surface specimens were collected comprising the following inventory:

1	Halifax projectile point
2	Guilford blanks
12	unused felsic flakes
3	quartz flakes
4	fabric-impressed potsherds
4	small eroded potsherds (unclassified)

This site was probably used during the Middle Archaic period (4000 B.C.) and Middle Woodland period (A.D. 500). The nature of these occupations cannot be determined other than to say that they were brief and not intensive. Given the fact that the site lies outside the interceptor corridors and pump station locales and, therefore, will not be impacted, additional work is not recommended.

SUMMARY AND RECOMMENDATIONS

Only one small prehistoric archaeological site was found during the course of the survey of the wastewater interceptors and associated pump stations. This site, RLA WA287, lies outside any of the potential impact zones. Given these survey results, in conjunction with topographic conditions along the interceptor routes, additional archaeological research is unwarranted, and clearance is recommended for the project.

BIBLIOGRAPHY

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1982 Archaeological Survey and Evaluation of the Land Application site for Garner, N.C. Ms. on file, Research Laboratories of Anthropology, University of North Carolina, Chapel Hill, N.C.