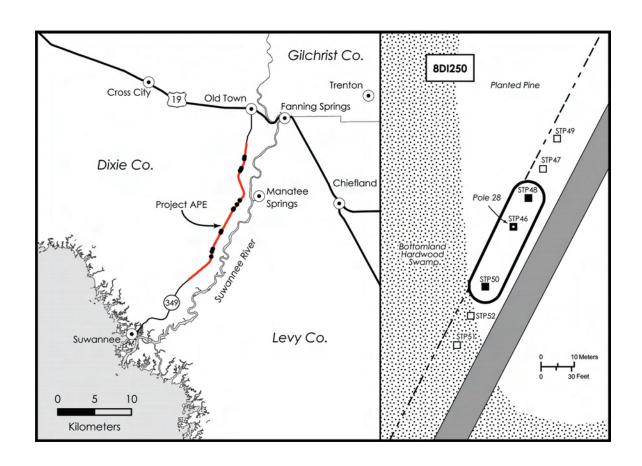
CULTURAL RESOURCES ASSESSMENT SURVEY OF SUWANNEE TRANSMISSION, PHASE TWO, CENTRAL FLORIDA ELECTRIC COOPERATIVE



Asa R. Randall and Clete Rooney

Technical Report 8
Laboratory of Southeastern Archaeology
Department of Anthropology
University of Florida



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MANAGEMENT SUMMARY

The Laboratory of Southeastern Archaeology (LSA), Department of Anthropology, University of Florida conducted a cultural resources assessment survey along a 21.3-km long segment of CR-349 in Dixie County, Florida during March and April of 2008. McLean Engineering Co., Inc. proposed the placement of 147 transmission poles within the western 25-ft right-of-way of this road segment, as a component of the Suwannee Transmission, Phase Two of the Central Florida Electric Cooperative's plan to upgrade transmission lines. This survey was conducted to identify cultural resources that would be impacted by transmission pole placement, and to evaluate their eligibility for nomination to the National Register of Historic Places. The assessment was performed in accordance with Chapter 267 *Florida Statutes* and all work in preparing this report conformed to Chapter 1A-46, Florida Administrative Code and the Cultural Resource Management Standards and Operation Manual (FDHR 2002).

Archival and field research methods were employed. Archival research included a search of the Florida Master Site Files (FMSF) and consideration of historic General Land Office (GLO) plats. No previously recorded cultural resources were present within the FMSF, and no historic structures or cultural features were evident on the GLO plats. Field research consisted of pedestrian survey along the entire corridor, and subsurface testing at pole locations. Site boundaries were established through close-interval subsurface testing within the corridor. A total of 14 archaeological sites were discovered during the survey, and were given FMSF designations. Four sites (8DI246-249) are historic artifact scatters. Eight sites (8DI250-258) are prehistoric artifact scatters. These 13 sites will be directly impacted by transmission pole excavation. Additionally, one historic cemetery (8DI259) was located adjacent to the project area. This site will not be directly impacted by the proposed project, and it is already spanned by existing transmission lines.

It is the opinion of the LSA that no sites discovered during this survey are potentially eligible for nomination to the NRHP. As a result, no further work is recommended. In order to minimize the potential impact on existing archaeological deposits, and to lessen the potential for unanticipated discoveries, we recommend the following: (1) excavation or land alteration should not extend beyond surveyed pole locations within archaeological site boundaries; (2) lay down yards or staging areas should be emplaced outside of archaeological site boundaries; and (3) all staging yards, equipment storage, or ground alteration should be avoided between poles 110 and 111 which spans the present and likely historic boundaries of site 8DI259, the Keen Historic Cemetery.

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CHAPTER 1 PROJECT OVERVIEW

Asa R. Randall

The Laboratory of Southeast Archaeology (LSA), Department of Anthropology, University of Florida was contracted by McLean Engineering Co., Inc. to provide a cultural resource assessment survey (CRAS) for the Suwannee Transmission, Phase Two project of the Central Florida Electric Cooperative. The LSA performed a reconnaissance survey of proposed areas of impact during the months of May and April 2008. This survey was conducted in accordance with Chapter 267 *Florida Statutes* and all work including background research, field work, and preparation of this report conformed to Chapter 1A-46, Florida Administrative Code and the Cultural Resource Management Standards and Operation Manual (FDHR 2002).

PROJECT DESCRIPTION

The proposed Phase Two of the Suwannee Transmission Project consists of approximately 21.3 km of transmission line in Dixie County, Florida. This project will replace existing transmission lines with larger poles that will provide higher capacity throughput to this rural segment. Poles to convey the new lines will be placed at an interval averaging about 450 feet along the 25-foot wide right-of-way (ROW).

The project Area of Potential Effect (APE) runs parallel to the western boundary of CR-349 in southern Dixie County (Figure 1-1). The northern edge of the corridor is 4.6 km south of Old Town, while the southern end of the project area is located 7 km north of the town of Suwannee. In this section of Dixie County, CR-349 is oriented roughly northeast-southwest, with four major curves. This corridor crosses numerous survey plats: Sections 2, 3, 4, 10, 15, 22, 27, 33, 34 of Township 11 South and Range 13 East; Sections 35 and 36 of Township 12 South and Range 12 East; and Sections 4, 8, 9, 17, 19, 19, 20, 25, 30 of Township 12 South and Range 13 East. Four USGS topographic quadrangles are represented in this sample: Eugene (1954), Fanning Springs (1993), Manatee Springs (1988), and Vista (1993). Elevations along the corridor generally descend from 25 ft amsl in the north to 10 ft amsl in the south. The project area is roughly parallel to the Suwannee River, on the upland terrace. At its farthest point, the corridor is 2.2 km from the Suwannee River. At its closest it is roughly 700 m to the west of the river, where the road inflects to the east adjacent to Manatee Springs.

The CRAS conducted by the LSA was preceded by archival and literature review for existing archaeological and historical resources. Fieldwork within the APE was stratified into subsurface testing at all pole locations, and pedestrian survey between pole locations. In the event that archaeological deposits were discovered in either case, subsurface survey was conducted to determine site boundaries within the APE corridor. These methods provided the basis for National Register of Historic Places (NRHP) recommendations.

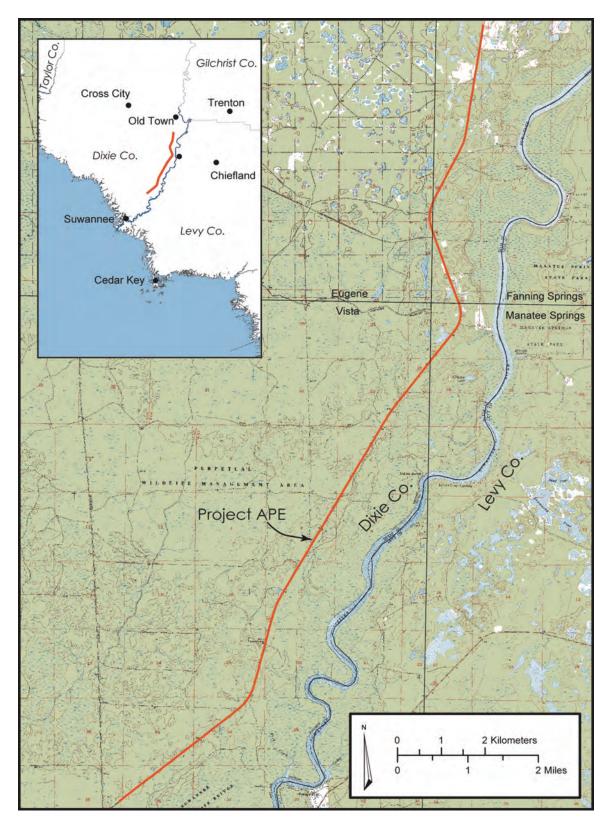


Figure 1-1. Area of Potential Effect (APE) location of the cultural resource assessment survey for the Suwannee Transmission, Phase Two project in Dixie County.

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ORGANIZATION OF THE REPORT

This report is organized into three sections. Chapter 2 places the current project within regional environmental and culture historical contexts, and provides a summary of cultural resources associated with the APE. In Chapter 3 we provide a description of the reconnaissance survey methods employed, followed by detailed discussions of the archaeological sites discovered during the project. The report concludes with Chapter 4, in which we provide our conclusions and recommendations for each site. Appendix A lists the locations and results of all shovel tests conducted during survey.

CHAPTER 2 ENVIRONMENTAL AND CULTURE-HISTORICAL CONTEXTS

Asa Randall and Clete Rooney

This chapter situates the cultural resource assessment survey within the regional environmental and culture-historical contexts. The environment, including geology and ecological structure, is considered first followed by the archaeological and historical contexts. Regional and state-wide syntheses are available for both the geology (Cooke 1939; Schmidt 1997; White 1970) and culture-history (FDHR 1990; Milanich 1994; Willey 1949). We summarize these regional patterns, and provide more locality-specific discussions, including previously recorded sites adjacent to the APE.

ENVIRONMENT

The project area is located approximately midway between Old Town and the town of Suwannee in southern Dixie County (Figure 2-1). The 21.3-km long corridor lies within 700 m west of the Suwannee River, along a relict terrace, and 10 km inland from the Gulf of Mexico. This zone is situated within the Lower Suwannee River Basin, which is part of the Gulf Coastal Lowlands physiographic regime (Cooke 1939; FDNR 1990; Puri et al. 1967).

Geomorphology and Environmental Geology

Like all of Peninsular Florida, the regional physiography of the Suwannee River Valley ultimately owes its current configuration to marine processes (Schmidt 1997). Currently, the dry land of Peninsular Florida occupies approximately one-half of the Florida Platform. Extending out into the Gulf of Mexico and Atlantic, the Platform is characterized by low relief, and is composed of Cenozoic carbonate sedimentary lithologies that lie unconformably upon a Paleozoic and metamorphic basement. The Florida Platform has been alternatively inundated by shallow seas and exposed as dry land during much of the Cenozoic epoch. The low elevation of the Platform has made it particularly susceptible to relatively small changes in sea level. Sea-level fluctuation has resulted in frequent progression and regression of marine, estuarine, and near shore environments. This process has left the Florida coastal zone dominated by positive features including elevated relict upland ridges, barrier beaches, and sand dunes, and negative features representative of shallow seafloors (Schmidt 1997). Numerous marine terraces that reflect long-term sea-level stands have been identified. In the study area they are generally poorly delineated, but include the Silver Bluff (<1-10 ft amsl), Palmlico (10-25 ft amsl), and Wicomico (70-100 ft amsl) (Healy 1975; Puri et al. 1967). The carbonate composition of many of Florida's sedimentary deposits has been equally influential. Carbonate rocks are particularly susceptible to dissolution, which results in karst topography and hydrogeology. Typical features of karst topography are sinkholes, sinking rivers, disappearing lakes, and springs (White 1988).

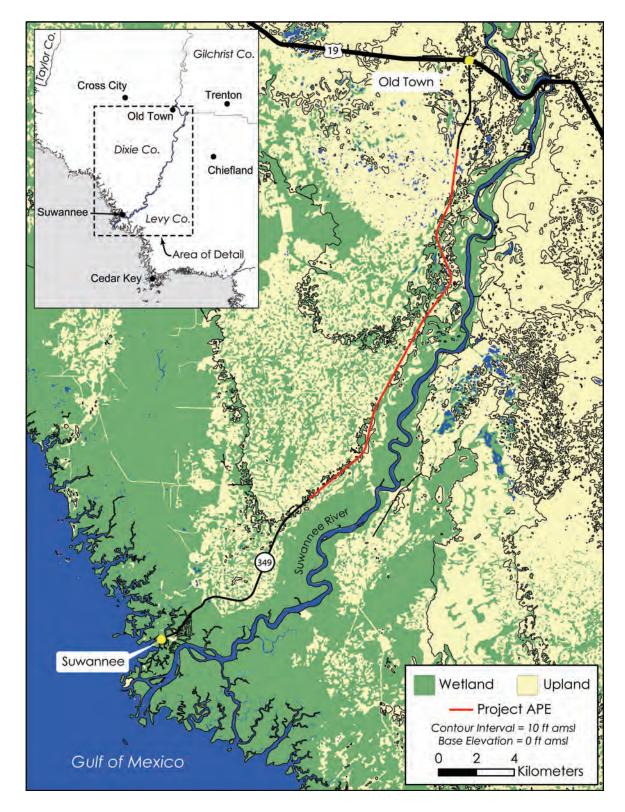


Figure 2-1. Topography and hydrology of the project area.

The Suwannee River and major tributaries emanate some 350 km upstream to the northeast in the Northern Highlands physiographic regime. After coursing through quaternary sands and tertiary weathered clays to the north, the river transitions to the lowlands. This transition is characterized by the appearance of weathered surficial sands underlain by karstic carbonate lithologies (Puri et al. 1967). The river channel also becomes increasingly incised and restrained within a bedrock-lined channel (Mossa and Konwinski 1998). In this lower segment limestone outcrops throughout the valley, and frequently contains chert and other siliclastic rocks suitable for use in manufacturing stone tools (Austin and Estabrook 2000). Similarly, numerous sinks and springs are present within the river floodplain, including a first order magnitude spring at both Fanning Springs and Manatee Springs. South of Fanning Springs the river flows generally to the south-southwest in a moderately sinuous course. The floodplain in this vicinity ranges from 0.5- to 2-km wide. This low lying zone is dominated by bottomland hardwood swamps (Liudahl et al. 2005). In contrast, the interior terraces, across which the project area traverses, rise 10 to 25 feet above the floodplain. These terraces are characterized by irregular sand ridges supporting mesic vegetation, interspersed with hydric hammocks, bottomland swamps, and emergent wetlands. Where the Suwannee flows into the Gulf of Mexico there is a final transition towards coastal swamps and mud flats. Historically, the Suwannee has a low sediment load, meaning that there is little clastic material provided by the river for island or beach building (Mossa and Konwinski 1998; Puri et al. 1967).

Paleoenvironment

The same processes that have affected the physiography and hydrology of Florida, namely fluctuating sea level and attendant shifts in climate and environmental regimes, have structured human settlement and their archaeological recognition in the study region. At the end of the Pleistocene sea levels were significantly lower than today (upwards of 40 m), resulting in the extension of inhabitable land over 200 km into the Gulf of Mexico and to a lesser extent the Atlantic (Faught 2004). Between 10,000 and 8000 B.P. sea levels initially rose quickly, inundating large expanses of the Florida Platform and interior drainages. Although near-modern levels were gradually achieved by 5000 B.P. (Faught 2004), sea level fluctuated throughout the middle and late Holocene. The increase in sea level and surface water resulted in the inundation of many early sites. Although inundated sites are routinely discovered in low-energy environments such as the Gulf of Mexico and interior sinks and drainages, many sites along the Atlantic Coast were likely destroyed or deeply buried by transgressing shorelines (Ste. Claire 1990).

The reduction of river gradients in response to sea-level change resulted in the initial alluviation and subsequent surface stabilization of interior and coastal fluvial regimes, which in turn affected the flow and biotic characteristics of river channels and floodplains (Schulderein 1996). Peninsular Florida's arid late Pleistocene conditions, characterized by low surface water levels, gradually gave way to a wetter, modern regime ca. 6000-5000 B.P. (Watts et al. 1996). At 10,000 B.P. oak scrub and prairies characterized peninsular Florida. Around 8500 B.P. pine and swamp vegetation expanded

from South Carolina throughout much of the Coastal Plain, becoming fully established by 4500 B.P. in southern Florida (Watts et al. 1996:37)

Soils and Ecological Communities

The transect encompassed by the project APE spans a total of 12 specific soil units (Table 2-1). Descriptions of soils and associated ecological communities are derived from Liudahl et al. (2005). These soils represent a limited sub-set of landforms and ecological communities. It should be noted, however, that these ecological distinctions are based on determined associations between soil and natural climax conditions of vegetation communities (Liudahl et al. 2005:89). Excluding permanently wet hydric hammocks and depressions, all landforms adjacent to the APE have either been converted to slash pine plantation, are regenerating from slash pine, host cattle pens, or are residential spaces. As such, the descriptions here provide a base line for what resources were possibly available prior to land conversion.

Low-lying zones such as swamps and depressions are characterized by the following soil units that range from poorly to moderately poorly drained: Clara and Meadowbrook soils, frequently flooded; Clara, Oldtown, and Meadowbrook soils, depressional; Clara sand, occasionally ponded; Clara-Oldtown complex, frequently flooded; and Leon-Leon depressional complex. These soils are host to swamp hardwoods and wet flatwoods present in both floodplains and in the low-lying upland terraces that rise above the floodplain. Swamp hardwoods are dominated by blackgum, red maple, Ogeechee Lime, cypress, and bay trees, with an understory of fetterbush, Virginia willow, buttonbush, and wax-myrtle. Flatwoods are also present within the APE, and are associated with Meadowbrook fine sand, a poorly drained soil present throughout the Lower Coastal Plain. This landform type is associated with slash pine, live oak, and sand live oak with an understory of saw palmetto, gallberry, and grasses.

Higher elevations, typically consisting of irregular knolls and ridges, are scattered throughout the flatwoods, wetlands, and depressions. These uplands are associated with the following poorly to excessively drained soils: Albany-Ridgewood complex; Ortega-Blanton complex, 0-5 percent slops; Ortega sand; Penney fine sand, 0-5 percent slopes, Ridgewood fine sand; and Talquin fine sand, occasionally flooded. Landforms with poorly to somewhat poorly drained soils are dominated by upland hardwood hammocks composed of black cherry, eastern hornbeam, flowering dogwood, hawthorn, laurel oak, laurelcherry, live oak, loblolly pine, longleaf pine, slash pine, pignut hickory, southern magnolia, sweetgum and water oak. The understory is typically composed of American beauty berry, arrowwood, sparkleberry, and wax-myrtle. Moderately well drained to excessively well drained soils are host to species endemic to the Longleaf Pine-Turkey Oak Hills ecological community which is typified by longleaf pine, turkey oak, bluejack oak, and sand post oak with an understory of Adam's needle, coontie, coralbean, shining sumac, and yaupon.

Table 2-1. Soils Associated with the Project Corridor (Liudahl et al. 2005).

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Soil Unit	Series	Province	Landform	Ecological Community	Drainage
Albany-Ridgewood complex	Albany	Lower Coastal Plain	Lower sandy uplands, sandy ridges	Upland hardwood hammocks	Somewhat poorly drained
Clara and Meadowbrook soils, frequently flooded	Clara	Lower Coastal Plain	Floodplains and flats	Swamp hardwoods	Poorly drained
Clara, Oldtown, and Meadowbrook soils, depressional	Clara	Gulf Coastal Lowlands	Depressions	Swamp hardwoods	Very poorly drained
Clara sand, occasionally ponded	Clara	Gulf Coastal Lowlands	Depressions	Swamp hardwoods	Very poorly drained
Clara-Oldtown complex, frequently flooded	Clara	Gulf Coastal Lowlands	Flats and floodplains	Swamp hardwoods	Poorly drained
Leon-Leon, depressional complex	Leon	Lower Coastal Plain	Flatwoods and depressions	Flatwoods, swamp hardwoods	Poorly drained
Meadowbrook fine sand	Meadow- brook	Lower Coastal Plain	Broad sandy flats	Flatwoods	Poorly drained
Ortega-Blanton complex, 0 to 5 percent slopes	Ortega	Lower Coastal Plain	Sandy uplands	Long-leaf pine - turkey oak hills	Moderately well drained
Ortega sand	Ortega	Gulf Coastal Lowlands on Lower Coastal Plain	Sandy uplands	Long-leaf pine - turkey oak hills	Moderately well drained
Penney fine sand, 0 to 5 percent slopes	Penney	Lower Coastal Plain	Sandy uplands	Long-leaf pine - turkey oak hills	Excessively drained
Ridgewood fine sand	Ridgewood	Gulf Coastal Lowlands	Lower sandy uplands, sandy ridges	Upland hardwood hammocks	Somewhat poorly drained
Talquin fine sand, occasionally flooded	Talquin	Gulf Coastal Lowlands	Lower sandy uplands, sandy ridges	Upland hardwood hammocks	Poorly drained

The pine flatwoods, hardwood hammocks, and longleaf pine ecological communities provide habitat for numerous terrestrial fauna. Those of economic importance to humans include white-tailed deer, black bear, raccoon, opossum, gopher tortoise, and turkey. Numerous species of birds, mammals, reptiles, amphibians, and gastropods also inhabit these zones. Moreover, the widespread, if spatially restricted wetlands, hydric hammocks, channel segments provide habitat for a diverse array of aquatic fauna. Aquatic vertebrates such as alligator, otter, turtle, and upwards of 40 species of fish of economic importance to humans are present throughout the region.

CULTURE HISTORY

The project area is situated within what has been defined as the North Peninsular Gulf Coast region (Milanich 1994:xix). The culture history of this region can be broadly divided into five chronological periods: Paleoindian (ca. 12,000-10,000 B.P.); Archaic (ca. 10,000-2500 B.P.; Woodland (ca. 2500-1250 B.P.); Post-Woodland (1250-500 B.P. [A.D. 1500]); and Historic (A.D. 1500-1950). Particular attention is paid to Dixie County and the surrounding region, with the recognition that many traditions temporally and spatially cross-cut arbitrary delineations, particularly along the this portion of the Gulf Coast (Borremans 1990).

Paleoindian (ca. 12,000-10,000 B.P.)

The onset of human occupation of the Florida Peninsula occurred during the Paleoindian period, at a time of low sea levels and arid environmental conditions. The late Pleistocene Paleoindian traditions include Clovis, Suwannee-Simpson, and Dalton, which are identified on the basis of diagnostic hafted bifaces. In addition to lanceolate hafted bifaces, the toolkits are characterized by a suite of formal unifaces (Daniel et al. 1986), bola stones (Neill 1964), the "Aucilla adze," and a variety of bone and ivory tools (Dunbar and Webb 1996). Today these sites are typically restricted to inundated contexts such as drowned river segments (Dunbar et al. 1988; Faught 2004), sinkholes (Clausen et al. 1979), or perched basins and depressions (Daniel and Wisenbaker 1987; Neill 1964; Sassaman 2003a). A trend towards increased surface water ca. 10,000 B.P., and subsequent settlement expansion is attested by Early Archaic diagnostics at Late Paleoindian sites, as well as small numbers of Early Archaic diagnostics in previously uninhabited localities. Noting the co-occurrence of Paleoindian artifacts and karst topography in northwest Florida, Dunbar and Waller (1983) posited the "Oasis" hypothesis, that in effect Paleoindian populations were tethered to Tertiary karst zones, abundant in toolstone and reliable surface water. Paleoindian sites tend to be clustered to the north, away from the Lower Suwannee River valley, although first order magnitude springs such as at Fanning and Manatee Springs would have likely been inhabited during this time period, and deposits of this age are strongly suspected at Fanning Springs (Bland and Chance 2000).

Archaic (ca. 10,000-2500 B.P.)

Archaic-period occupation of Florida is coincident with a gradual trend towards near-modern climatic and hydrological regimes, as well as the emergence of increasingly diverse regional traditions. Early Holocene traditions dating between ca. 10,000 and 9000 B.P. are identified by Side-Notched and Corner-Notched Bolen points (Bullen 1975). Aside from changes in hafted biface morphology and the addition of new tools, the toolkits, settlement patterns, and site locations are largely consistent with Paleoindian forebears, particularly Dalton. Between 9000 and 7000 B.P. Florida's Early Archaic traditions are poorly understood (Austin 2004; Milanich 1994). Stemmed points, consistent with the Kirk Stemmed type and locally referred to as Kirk, Wacissa, Hamilton, and Arredondo (Bullen 1975) are distributed throughout the North, Central, and Gulf Central portions of the state, often in the same localities as earlier forms (Milanich 1994). Dateable contexts are rare, with West Williams (Austin 2004) and Windover (Doran 2002a) producing a date range of 8120-6820 B.P. Stratigraphic excavations at Harney Flats (Daniel and Wisenbaker 1987), West Williams (Austin 2004), and Trilisa Pond (Neill 1964), as well as a comparison of Archaic sites within the Tampa Bay region (Austin 2006:174) indicate that formal blade tools were largely being abandoned in favor of rough or informal unifacial tools. This period also witnesses the establishment of a long-standing tradition of pond burials, as evidenced by 168 interments at Windover Pond (Doran 2002b).

Several environmental and social trends define the Middle (ca. 7000-5000 B.P.) and Late Archaic (ca. 5000-2500 B.P.). In broad terms the Middle and Late Archaic periods are coeval with increasingly wetter conditions of the Middle Holocene, with essentially modern conditions occurring by the end of the Late Archaic. Across much of Peninsular Florida researchers have recognized the Newnan Horizon, characterized by short, narrow-stemmed, and broad-bladed chipped-stone hafted bifaces (Milanich 1994:76). Within the horizon a number of types have been defined, including Newnan, Marion, and Putnam (Bullen 1975). There is significant variation in the form of stemmed hafted bifaces from this period, leading to a less formal designation of the "Florida Archaic Stemmed" type, which includes any broad-bladed stemmed hafted biface. Lithic artifacts during this period were typically manufactured from thermally altered chert or silicified coral (Ste. Claire 1987). Dates place Newnan Horizon sites between 7000 and 5000 B.P. (Milanich 1994:77), although similar forms were likely produced into the Late Archaic.

Sites of this period are found throughout much of Florida, and for the first time are located in the interior forests, along the St. Johns River and the Atlantic Coastal Lagoon (Milanich 1994:77). Coastal occupation likely occurred earlier but has likely been inundated or destroyed through increased sea level (Ste. Claire 1990). Lifeways predicated on intensive shellfishing are present in the St. Johns by 6000 B.P. and no later than 5,600 B.P. on the northeast coast of Florida (Russo 1996). An inundated shell midden dating to ca. 6000 B.P. has also been reported from the Paleoaucilla river in northwest Florida (Faught 2004). Regardless, the distribution of sites reflects an overall increase in available surface waters and the exploitation of new habitats, as well as a

probable increase in population. Settlement in interior Florida, which contains much of the available chert and silicified coral for the production of stone tools, is characterized by a dichotomy between large, diverse assemblages and small lithic scatters. The large sites have been interpreted by Milanich (1994:79) as indicative of reduced seasonal mobility. Austin (2001) suggests, however, that the larger sites likely represent more intensive short-term reduction episodes near raw material outcrops. Several quarries have been identified, including the Senator Edwards site in central Florida (Purdy 1975).

Towards the end of the Archaic period, beginning ca. 4200 B.P., Florida inhabitants began producing pottery tempered with organic fibers. So-called fibertempered pottery types include the Orange and Norwood series. The Orange tradition is defined within the St. Johns Basin and associated Atlantic coast, although Orange components have been documented throughout much of Florida (Milanich 1994) with fiber-tempered ceramic technology appearing in both the coast and riverine interior almost simultaneously (Sassaman 2003b). Beyond ceramic technology, the tradition is characterized by Culbreath and Hamilton points, shell tools, and the occupation of coastal shell rings and interior shell mounds and middens. In the St. Johns region Orange components are frequently found in the same locales as earlier preceramic components. In contrast to the Atlantic Coastal Plain, Late Archaic traditions along the Gulf Coastal Plain remain poorly understood. In part, this is due to lower-than-present sea levels during this time period. The Elliott's Point Complex (ca. 4000-2700 B.P.) is understood as a Northern Gulf Coastal Poverty Point expression (Lazarus 1958; Thomas and Campbell 1991), with assemblages characterized by fiber-tempered ceramics (Norwood series), baked clay objects, Jaketown Perforators, soapstone vessels, and Mud Creek, Bakers Creek, Destin, and Motley points. The complex is most clearly shown in the Choctawhatchee Bay at Buck's Bayou and Meigs Pasture (Thomas and Campbell 1991), is also present within the Apalachicola-Lower Chattahoochee Valley (White 2004, 2003). While there is an apparent increase in the number of sites bearing pottery, suggesting yet additional population increase, it may also result from increased archaeological visibility of chronologically sensitive material culture.

Components dating to the Archaic period are poorly represented within the study area (Johnson and Kohler 1987). No Archaic components have been identified along the upland terrace of the Lower Suwannee River adjacent to the project area. Archaic lithic assemblages characterized by abundant thermally altered lithic waste flakes and diagnostic hafted bifaces have been identified at Fanning Springs State Park (8LV537) in Levy County (Bland and Chance 2000; Weisman and Newman 1995). Borremans and Moseley (1990) identified a preceramic Archaic component at site 8LV4 on Cedar Key, and suspect many others are located in this region. Kohler and Johnson (1986) also identified a number of Late Archaic sites with Orange or Norwood ceramics along the coastal zone in Dixie County. South of Cedar Key in Levy County, however, Archaic coastal sites have not been identified (Jones and Borremans 1991).

Woodland (ca. 2500-1250 B.P.)

Beginning some 2500 years ago, there is increased visibility of settlements along the Gulf coast and interior riverine drainage of the Suwannee River, in addition to the Atlantic coast (Milanich 1994:112). Coeval with this development is the gradual replacement of fiber-tempered ceramics with sand-tempered ceramics, diagnostic of the Deptford tradition. Along the Gulf Coastal region, Deptford sites date between ca. 2500 and 1800 B.P. In this region Deptford sites are frequently situated within the live oak-magnolia hammocks associated with salt marshes (Milanich and Fairbanks 1980:68). These sites are characterized by relatively shallow shell middens, typically composed of oyster and other marine resources. Often the middens are arranged in circular rings, ranging in size from 20- to 30-m in diameter, and contain pit features, post holes, and refuse features. Collectively these elements are thought to represent residential units within villages (Milanich 1994:122-123). Inland sites have also been documented. Such sites tend to be characterized by low-density scatters, and likely represent short-duration encampments (Bense 1985; Johnson and Kohler 1987; Milanich 1994:126).

While it is thought that Deptford populations were derived from ancestral Archaic communities, changes within technology and ceremonialism are evident. Non-ceramic material culture assemblages are characterized by small amounts of lithic tools, typically modified flakes and small bifaces, in addition to bone and shell tools. Pottery is by far the dominant material culture class recovered. Within the study region, most Woodland period vessels appear to have been undecorated sand-tempered plain wares (Borremans 1990). Limestone-tempered Pasco plain and spiculate-tempered St. Johns wares occur as minorities within assemblages as well. During Deptford times, the impression of designs upon wet vessels with wooden paddles is a diagnostic practice. Designs include check stamping, simple stamping, and linear stamping, in addition to stick impressions (Milanich 1994:130-133). The lack of decoration in most vessels appears to represent a dichotomy between secular and sacred spaces. Undecorated wares are typical of domestic contexts, while decorated wares are typically associated with ceremonial places such as burial mounds and platform mounds. Ceremonialism during early Deptford times appears to have been restricted to communal mortuary mound construction along the coast. After 1900 B.P., however, there is evidence for increasing involvement of local communities within the ceremonial Yent complex. Yent ceremonialism included the exchange of marine tools and objects, exotic artifacts, and apparent construction of ceremonial centers focused on mortuary rituals.

Beginning around 1800 B.P. there is a florescence of traditions throughout peninsular Florida including Weeden Island in the Northern Gulf Coast and interior highlands, Manasota on the Southern Gulf Coast, and St. Johns I on the Atlantic Coast. In certain respects, these traditions share many similarities in ceremonial and political practices. As before, there is a striking distinction between sacred and secular contexts. Villages have been identified, and appear to contain distinct households associated with nearby mortuary features. Much of the ceremonial symbolism appears to have emerged from earlier Deptford traditions, including the construction of burial and ceremonial mounds, and the importance of exotic objects. As many researchers have noted, however,

those traditions within the Suwannee River Basin and associated Gulf Coastal regime have resisted divisions (Borremans 1990; Milanich 1994:208), and ceramic assemblages diagnostic of Swift Creek, Weeden Island, Manasota, and St. Johns traditions are all found within the North Peninsular Gulf Coastal region. In part, the diversity of ceramic wares may reflect the underlying ecological and economic potential of the region. However, contributing to the confusion is the predominance of plain wares, such as sand tempered plain, Pasco plain, and St. Johns plain, which lack the chronological specificity of decorated wares. Because of the lack of chronological resolution, and the local diversity, sites dating between ca. 1800 and 1250 B.P. are routinely referred to as "Weeden Island-Related." Sites of this period have been identified throughout the coastal marine marshes of Levy and Dixie County, as well as interior locales adjacent to the Suwannee River (Johnson and Kohler 1987; Jones and Borremans 1991; Kohler and Johnson 1986).

Post-Woodland (ca. A.D. 750 [1250 B.P.]- 1513)

The social diversity and typological complexity that characterizes the Woodland period continues into the so-called Post-Woodland or Mississippian period. The term Mississippian has, for better or worse, been used in Florida to denote complex societies, such as Fort Walton and Pensacola cultures along the panhandle, St. Johns II along the St. Johns river, and Safety Harbor cultures of the Central Gulf Coast. The term itself underscores a presumed linkage with Mississippian cultures within the Midcontinent and throughout the Southeast. While contacts and influences in Florida can be debated, these indigenous Floridian societies are thought have exhibited complex social organization, including chiefly elite, large scale ceremonial complexes, and possibly intensive horticulture or agriculture. In addition, archaeologists have defined the Alachua and Suwannee River cultures as two post-Weeden Island, and presumably intrusive, traditions in Northern Peninsular Florida (Milanich 1994:333). Sites attributable to these traditions are located within the Middle Florida Hammock Belt, notable for its fertile and welldrained soils. Such sites appear to represent small hamlets, frequently with associated mortuary mounds. Largely on the basis of corn-cob impressions on pottery it is presumed that maize-based horticulture or agriculture was practiced, apparently without clear distinctions in economic or social status amongst participants.

As in the preceding era, the Lower Suwannee River and associated Gulf Coastal lowlands are characterized by diversity in lifeways. Evidence for Fort Walton or Safety Harbor influences are minimal. However, the region appears to have been the locus of multiple overlapping, if not coeval, populations living in close proximity after A.D. 750. Near the coast, populations descended from earlier Weeden Island I inhabitants appear to have continued a maritime way of life (Milanich 1994:213). Surveys within the Gulf Coastal Hammock and Cedar Key have identified both village and mound complexes that may date to this time frame (Jones and Borremans 1991). Shell middens appear to have been either linear or amorphous, and likely represent multi-household villages. However, survey by Johnson and Kohler (1987) has demonstrated that Alachua culture assemblages are present throughout Dixie and Levy County, even a few miles from the coast. These sites tend to be located upon land more suitable for agriculture. Ceramics associated with

this archaeological culture are Lochloosa Punctated, Alachua Cob Marked, Prairie Cord Marked, Prairie Fabric Marked, and Prairie Punctated-over-Cord Marked. In a number of cases Weeden Island-related assemblages co-occur where Alachua tradition assemblages are found. Because of a lack of dated contexts it is currently unknown to what extent these represent separate groups occupying similar landforms, or whether it is a question of chronology.

Historical Period (ca. A.D. 1513-1950)

Permanent European settlement of Florida began with the establishment of a garrison in what is now St. Augustine in 1565. St. Augustine was strategically situated to deny Spain's colonial rivals access to Spanish-claimed territory in North America. For much of the succeeding three centuries, Florida was a contested ground between rival European powers (and later, the United States) and Native American groups.

A key element of Spanish attempts to control Florida was the establishment of a series of missions. Hernando De Soto first crossed the Suwannee River in 1539, but from the 1560s to the early 1700s, the Spanish focus in the region was largely on the Atlantic coast of Florida and Georgia (Kaucher 1972; Milanich 1999). With the exception of San Luis de Talimali, near present-day Tallahassee, there was less effort to colonize the interior of the Florida peninsula (Milanich 1999:33). The Spanish had commerce with the native groups of the Suwannee River basin, but there is little evidence of Spanish settlement. In the early 1700s there was some interest in establishing a Spanish settlement at the mouth of the Suwannee, at a landing the Spanish referred to as Port San Martin, but historical records are unclear as to whether (or exactly where) such a settlement would have been (Hann 1996:254). The closest known Spanish mission efforts to modern-day Dixie County were to the northeast, at the confluence of the Suwannee and Santa Fe Rivers. Missionization attempts along the Gulf coast, including the establishment of Franciscan friars at the native village of Cofa, near the mouth of the Suwannee, were of relatively short duration (Hann 1996:179).

In 1763, Spain ceded Florida to Great Britain under the terms of the Treaty of Paris. Many of the Spanish-allied natives left with the Spanish when Florida changed hands (Weinstein and Mayo 2006). Movement of Creeks and Micosukee Indians from Georgia and Alabama into Florida began in the early 1700s, and accelerated during the British period (Milanich and Fairbanks 1980). These Indian populations, whom the British referred to as Seminoles, established settlements in the Florida hinterlands, including the lower Suwannee River (Milanich and Fairbanks 1980, Weinstein and Mayo 2006). The British, however, like the Spanish, largely focused their efforts on the Atlantic coast of Florida, where they established large plantations. The British also began extracting naval stores (pine resins and gums) from Florida's timber resources.

British control of Florida was relatively short-lived, and after the British defeat in the American Revolution, Spain regained control of Florida in 1783. Florida planters who had ties to the United States agitated for Florida to break with Spain and come under American jurisdiction. In 1812, the Patriots Rebellion, an armed insurrection against Spanish authority by a group of planters, supported by elements of the United States Army, was put down by the Spanish and their Seminole Indian allies. Seminoles, at the behest of Spanish officials, burned the plantations of some of the rebel leaders. Many of the rebel leaders fled to the United States, where they continued to argue for the U.S. annexation of Florida (Davidson et al. 2006). The Seminoles incurred the enmity of prominent U.S officials, including General Andrew Jackson, for their part in quelling the rebellion.

Seminole raids from Florida into Georgia were the pretext for the First Seminole War, in 1817. In 1818, Andrew Jackson led a reprisal raid against Seminole settlements near the modern town of Suwannee (Weinstein and Mayo 2006:12). In 1819, Spain recognized the de facto U.S control of Florida, and signed a treaty ceding the territory officially to the United States. In 1845, Florida became a state. During later realignment of county boundaries, Dixie County separated from Lafayette County in 1912. The town of Cross Roads changed its name to Cross City, and became the county seat.

Because of ongoing conflict with the Seminoles, the first United States settlements in much of Florida were military forts, and what is now Dixie County was no exception (Dibble 1999). Fort Fanning, on the Suwannee River, was established in the 1830s during the Second Seminole War, and formed a nucleus for frontier settlements in the region. Zachary Taylor, future U.S. President (1849-1850), commanded the Southern division of the U.S. army during the Second Seminole War and used for Fanning as a base of operations in 1840 (Taylor 1840). According to Henry Wilson, a major in the U.S Army during the Seminole conflicts, Fort Fanning was also a staging area for Seminoles being relocated to South Florida at the end of the war (Wilson 1841:March 14).

Florida seceded from the United States during the Civil War, and Federal forces attempted to blockade river traffic along the Suwannee River (Weinstein and Mayo 2006:12). After the close of the war in 1865, increasing railroad development diminished the importance of the Suwannee River as a transportation venue. Railroads spurred the expansion of lumber and naval stores industries in Florida in general and Dixie County in particular.

The extraction of gums and resins from pine trees for use in the naval stores industry in the United States dates back to the late eighteenth century. The extraction of turpentine was a key component of this industry. Turpentine was produced by extracting resin from living longleaf and slash pine trees (FDNR 1990). A cut was made in a tree during this process, and the tree's resins were collected in a container for later processing (Perry 1968:511). The naval stores industry was a major source of revenue in much of the South from 1789 to 1861, though except for the British period (1763-1783), it did not become economically important in Florida until circa 1900 (Butler 1998; Perry 1968).

Charles Herty of the U.S. Bureau of Forestry introduced an economical system of pine gum extraction using zinc gutters and clay cups in 1902 (Herty 1903:9; Reed 1982). Herty patented the cup and gutter system in 1904, and the Chattanooga Pottery Company began producing millions of Herty clay cups for the turpentine industry, spurring a

turpentine boom in rural Florida and Georgia (Reed 1982:175). By the 1920s, the Herty system dominated the turpentine industry in Florida (Reed 1982:175). From 1909 to 1919, Florida was the largest producer of naval stores in the United States (Perry 1968:525). The Herty system involved more than the use of cups—he also advocated changes in the labor practices and tree management aspects of turpentine extraction—but the most visible archaeological signature of this process was the ubiquitous clay Herty cup.

After the 1940s, timber and farming supplanted naval stores as the dominant industries in the Dixie County area. Currently, the Georgia-Pacific Company's pulpwood and mulch industries are the largest employers in the region (Archaeological Consultants 1995).

PREVIOUS INVESTIGATIONS

A review of recorded sites and surveys within FMSF documentation indicates that no cultural resources have been recorded within the APE. In fact, the upland terrace zone in which the APE is located is almost devoid of recorded prehistoric or historic archaeological sites. This stands in stark contrast to the abundance of site occupations in close proximity to the Suwannee River channel and floodplain. There are several potential reasons for this patterning. First, few surveys have been performed in this portion of Dixie County either within the coastal lowlands or coastal swamps. Secondly, most of the region is currently managed as slash pine plantation, a destructive land use pattern that can heavily disturb sites. Third, unlike other regions of Florida, Dixie County has remained rural and is not the locus of development that would bring cultural resources to light either through earth moving or through concerted avocational interest.

Despite the lack of extensive surveys, three recent projects suggest that lowdensity, archaeological components are situated throughout upland knolls associated with wetlands and depressions on the landform. Archaeological Consultants, Inc. (ACI) conducted a reconnaissance survey on a 120-acre tract adjacent to the project area along the eastern edge of CR-349 (ACI 2006). Their project area, the Sunnyvale Mitigation Area, is characterized by nearly the same diversity in landforms and soil complexes as those traversed by the Suwannee Transmission, Phase Two corridor. Through systematic and judgmental subsurface testing ACI documented a total of five archaeological sites (8DI237-241) within the tract. These sites were characterized by low-density assemblages of lithic waste flakes and on occasion aboriginal pottery typical of an Alachua-related tradition, but may also date to other periods as well. The sites ranged in size from 30 m by 40 m to 40 m by 90 m in size. All are situated proximate to wetlands on rises and knolls. Finally, soils associated with the sites include Albany-Ridgewood complex, 0-3 percent slope, Ridgewood fine sand, Ortega sand, and Ortega-Blanton complex, 0-5 percent slope. Survey and mitigation of the Suwannee Waste Water Treatment Plant, southwest of the current project area, identified two prehistoric sites situated upon knolls, and associated with wetlands (ACI 1995; Weinstein and Mayo 2006). Shovel testing and close-interval coring determined that site 8DI157 contained at least a Deptford component, and may have also dated later to Weeden Island/Alachua times. A minor 18th-century Seminole component was also identified. The nearby site 8DI158 was found to contain solely Deptford materials. At both sites they also uncovered evidence for late 19th- or early 20th-century occupation, but no standing structures were discernable.

CHAPTER 3 RECONNAISSANCE SURVEY RESULTS

Asa R. Randall and Clete Rooney

This chapter summarizes the results of testing the location of 147 proposed poles along the 21.3-km long APE corridor. We first review the survey methods employed, including probability assessment and subsurface testing strategies. We then provide detailed descriptions and NRHP eligibility statements for each of the 14 newly identified archaeological sites.

SURVEY METHODS

Our survey strategy utilized three primary methods to determine the presence and significance of cultural resources at proposed transmission pole locations and along the project corridor. Prior to fieldwork, we performed a background records check, including current and historic government documentation. We first queried the Florida Master Site Files (FMSF). No archaeological sites have been documented within the APE. We also examined General Land Office survey plats and historic aerial photographs. No obvious resources were evident from either source. During fieldwork we also had the opportunity to discuss with several unnamed local avocational archaeologists the probability of finding archaeological sites within the APE. These individuals, one of which was an operator at the local wastewater treatment plant in the town of Suwannee, all indicated that they did not know of any cultural resources along this segment of CR-349.

Our fieldwork component was structured by the peculiarities of the planned project impact at localized transmission poles along the APE corridor. We stratified our reconnaissance survey into a surface survey and subsurface testing. The presence of above-ground cultural resources, including standing architecture or artifact scatters, was assessed by a pedestrian survey along the entire APE. This survey was conducted in tandem with subsurface reconnaissance. In the event that artifacts were identified on the surface, such areas would be subjected to further subsurface testing. Shovel test pits (STP) were excavated at proposed pole locations to determine the presence of subsurface cultural resources. Following the standards of Florida's Division of Historic Resources, each STP measured 50 x 50 cm in plan, and was excavated to a maximum depth of 100 cm below surface (cm BS) unless water inundated the pit. During excavation, all soil matrix was passed through 0.25-inch screen. In the event that an STP tested positive for cultural materials, further testing was necessary to determine the extent of the archaeological site within the APE. Because of the restrictions of testing within the ROW, we were only able to bound positive STPs parallel to CR-349. Using this strategy, two negative STPs at 10-m intervals are required to delimit each boundary of the site. A minimum of four additional STPs was required to delimit each positive STP.

All cultural materials that were retained in the screen were bagged and kept for analysis. Artifacts recovered during survey were classified into material types, and

subjected to further basic analyses. Lithic waste flakes were subjected to an individual flake analysis. Flakes were macroscopically examined for the following attributes: raw material type, presence of dorsal cortex, and presence of thermal alteration. Finally, each flake was weighed and size graded using nested squares at 0.5-cm intervals. Modified lithics, if encountered, were classified into production stages and culture-historical types. Prehistoric pottery sherds were typed based on surface treatment and temper inclusions that were macroscopically identified. The core, exterior treatment, and interior treatment of each sherd was described. A material/functional classification adapted from Adams (1980) was utilized for historic materials. Artifacts were sorted initially using broad material classes (metal, glass, ceramic) and sub-sorted using functional and temporal criteria where applicable.

SURVEY RESULTS

The phase I reconnaissance survey was conducted over the course of seven days, during the months of March and April, 2008. Pole locations had been marked by McLean Engineering prior to the start of fieldwork. In general, poles were situated between 1 and 3 m east of the ROW boundary. STPs were excavated within 1 m of the staked pole location. Ground cover in this zone ranged from barren to low-lying shrub, grasses, and palmetto. Most areas showed evidence for routine maintenance, including clear cutting. In addition, this border of the APE frequently corresponded with constructed firebreaks. In contrast, the eastern 5 m of the ROW was well-maintained and covered with low-lying cut grass. All STPs, whether at pole locations or while defining site boundaries, were excavated along the western margin of the APE in order to avoid utilities Our surface survey also emphasized the western margin of the APE due to relatively open or clear ground cover.

Using the described methods, we excavated a total of 214 STPs within the APE, 34 of which tested positive for cultural materials. Three surface collections of artifact scatters were associated with positive STPs adjacent to pole locations. Excluding a historic cemetery, no sites were encountered during surface survey that were not associated with pole locations. The positive STPs represent 13 previously unrecorded archaeological sites (8DI246-8DI258) (Figure 3-1). In addition, an unrecorded historic cemetery that is still in use (8DI259) was also observed and recorded. No standing historic structures were identified within or adjacent to the project boundaries.

In several cases pole locations were not tested. Poles 38 and 116 were positioned on top of spoil piles greater than 1.5 m in height. These piles were composed of lime rock, sediment, and broken up asphalt. In addition, Pole 104 was situated between two fiber-optic cable lines/utility signs, and we avoided digging there. Finally, we were prevented from testing Poles 60, 125, 140, and 141 because of standing water. In the weeks before starting the fieldwork, Dixie and surrounding counties were subjected to numerous torrential downpours. Many low-lying areas and adjacent wetlands held ponded water.

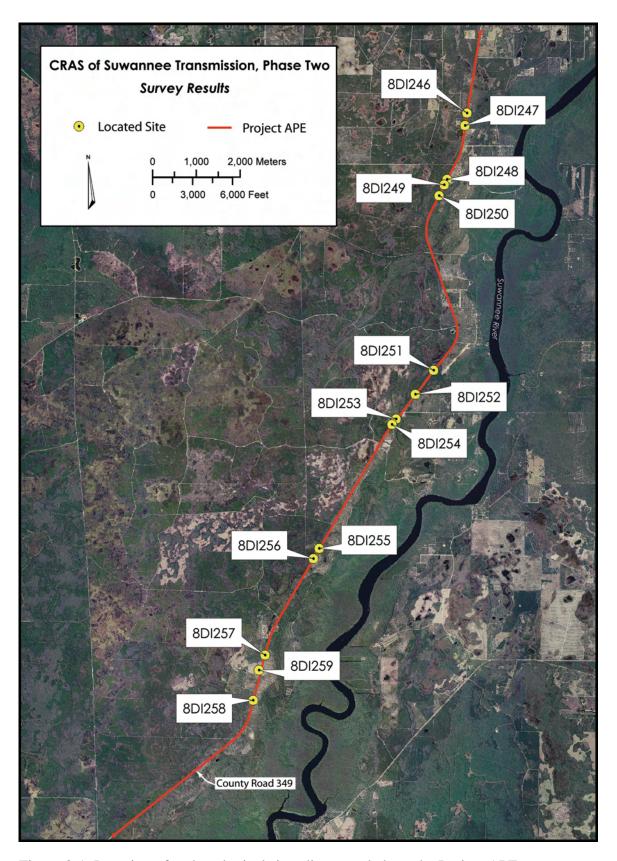


Figure 3-1. Location of archaeological sites discovered along the Project APE.

Of the tested archaeological sites, eight consisted of more than one positive STP. Another five sites were characterized by a single positive shovel test, frequently with a single artifact. Such finds fall within the category of an "Isolated Archaeological Occurrence," as defined by Florida Division of Historical Resources (FDHR) (2002). Because of the inherent restrictions of testing within a corridor, however, these sites have only been sufficiently bounded in two directions. These single finds are treated herein as archaeological sites with Florida Master Site File (FMSF) designations. The results of each shovel test, including the GPS coordinates for each shovel test recorded in UTM (Zone 17N, North American Datum of 1983) are presented in Appendix A.

8DI246 – Anderson Columbia 1

The Anderson Columbia 1 site, 8DI246, is a historic artifact scatter. The site was discovered in the course of testing the proposed location of Pole 14 (Figure 3-2). Site 8DI246 lies at an elevation of 25 ft amsl and is located immediately east of planted pine, and roughly 40 m west of an emergent wetland. Soils in the vicinity of the site are classified as Clara and Meadowbrook soils, frequently flooded. Cultural materials were confined to STP-14, which yielded a single Herty cup fragment (Table 3-1). Continued testing of the northern and southern boundaries within the APE failed to encounter additional cultural materials, nor were any observed on the surface of the site. It is unknown if site 8DI246 continues farther to the west. Two different stratigraphic profiles were observed while testing the site. Within STP-14, stratigraphy consisted of mottled gray/brown sand at 0-70 cm BS, and pale brown sand from 70-100 cm BS. The upper stratum appeared to be disturbed, and the Herty cup fragment was recovered between the surface and 20 cm BS. In contrast, site definitional STPs yielded stratigraphic profiles that exhibited the following generalized stratigraphy: 0-25 cm BS light gray sand; 25-55 cm BS mottled light gray, brown and dark gray sand; 55-100 cm BS pale brown sand. This profile is consistent with the Clara and Meadowbrook soil definition. On the basis of testing within the APE, the site measures a minimum of 10 m in diameter, and covers 78 m^2 .

Based on the single find, the rime portion of a Herty Cup, site 8DI246 dates to the early 1900s. This type of cup was commonly used during the gum-extraction phase of turpentine and naval stores production. Martinkovic (2003) defined different types of turpentine-related archaeological sites: *gum extraction sites*, where gums and resins were extracted from pine trees; *gum rendering facilities*, where the gum was processed and distilled into products such as turpentine; *camp sites*, where workers resided, and *transportation facilities*, for the movement of workers and products. Site DI246 is an

Table 3-1: Cultural Materials Recovered from the Anderson Columbia 1 Site, 8DI246, Located in the Vicinity of Proposed Pole 14.

		Depth	Herty Cu	p Fragment
Shovel Test	FS	cm BS	Count	Weight (g)
14	1	0-20	1	24.6

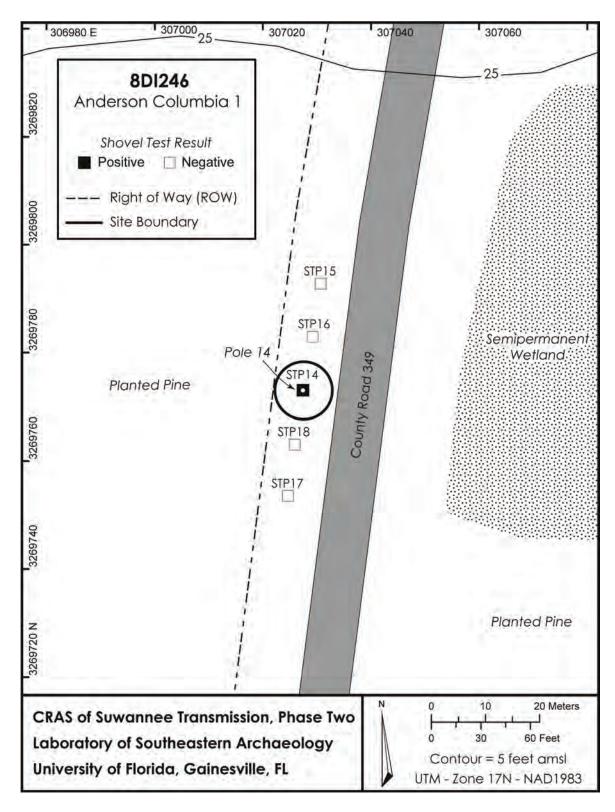


Figure 3-2. Shovel test results map of the Anderson Columbia 1 site, 8DI246.

example of an extraction site. The single find from 8DI1246 is a cup type patented in 1904 by Charles Herty of the U.S. Bureau of Forestry and produced by the Chattanooga Pottery Company (Reed 1982:171, Herty 1903:9). By the 1920s, the Herty system dominated the turpentine industry in Florida (Reed 1982:175). Though this cup design was patented in 1904, it did not immediately replace earlier resin catchment systems. The site is no earlier than 1904, and more likely dates to the peak of the Florida turpentine boom (1909-1919) or later.

Given the lack of associated finds, the site is most likely related to a larger scale pine plantation. Because we could not bound the site in all directions, the total extent of the site is unknown. However, it is also possible that the find is not in original context given evidence for earth-moving activities in addition to the presence of disturbed near-surface strata. Finally, Herty cups and pine plantations represent a redundant and widespread land-use pattern, and such finds are neither rare nor spatially circumscribed. Taking these factors into consideration, it is our opinion that as currently characterized within the APE, the site is not eligible for listing on the NRHP.

8DI247 - Reed

The Reed Site, 8DI247, is a historic artifact scatter. The site was discovered while testing the proposed location of Pole 16. Site 8DI247 shares many similarities with site 8DI246, which is situated 280 m to the north. The Reed site is located immediately east of a well-maintained planted pine plot, and approximately 15 m south of a residential lot with a recently constructed home (Figure 3-3). Soils in the vicinity of site 8DI247 are classified as Clara and Meadowbrook soils, frequently flooded. Cultural materials were confined to STP-20, which yielded a single Herty cup fragment between 0 and 20 cm BS (Table 3-2). The stratigraphy of STP-20 was characterized by the following profile: 0-40 cm BS light gray sand; 40-100 cm BS pale brown sand. Unfortunately, the extent of the site could not be determined. There is a wooden fence that is placed immediately on the boundary between the planted pine and the ROW. Because of the arrangement of the fence, further testing would have occurred in line with marked utilities. On the basis of testing within the APE, the site measures a minimum of 10 m in diameter, and covers 78 m².

Although we were unable to bound the site, it is likely related to the same landuse practices as site 8DI246. The single Herty-cup fragment indicates a post-1904 date for the site. Because the site is unlikely to add new information, and does not represent a poorly documented historical context, it is our opinion that the site is not eligible for listing on the NRHP.

Table 3-2: Cultural Materials Recovered from the Reed Site, 8DI247, Located in the Vicinity of Proposed Pole 16.

		Depth	Herty Cup	Fragment
Shovel Test	FS	cm BS	Count	Weight (g)
20	2	0-20	1	55.0

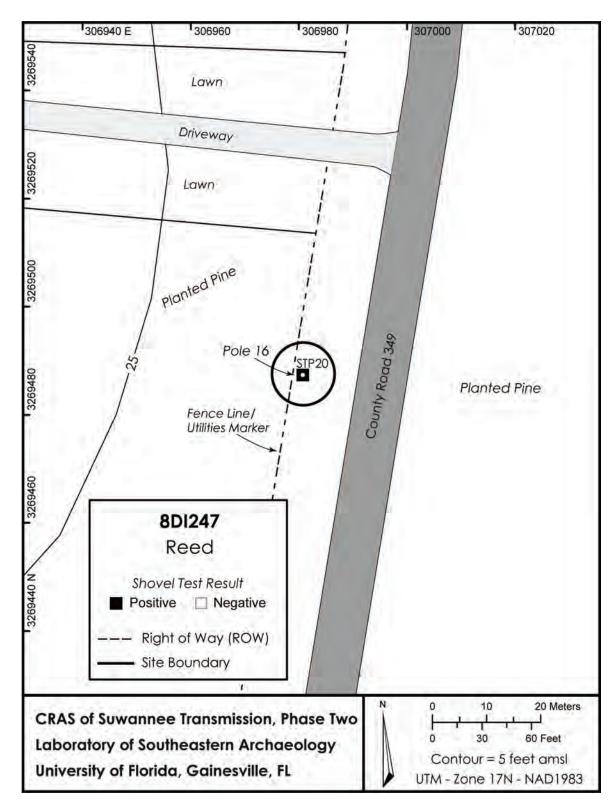


Figure 3-3. Shovel test results map of the Reed site, 8DI247.

8DI248 – Butler Homestead 1

The Butler Homestead 1 site, 8DI248, is an extensive historic artifact scatter located approximately 1.4 km southeast of site 8DI247. Site 8DI248 was discovered while testing the proposed location of Pole 25 (Figure 3-4). The site is currently situated east of a pine plantation. Within the APE the ground is sparsely covered with grass, palmetto, and low-lying shrubs. Soils in the area are classified as Ridgewood fine sands. The ROW shows signs of disturbance associated with the establishment and routine maintenance of a firebreak. The site was characterized with a total of five positive STPs. Prior to testing Pole 25 we observed a low-density scatter of historic-era artifacts, including manganese glass, Herty cup fragments, historic ceramics, and rusted metal fragments. This scatter is present 10 m to the northeast and southwest of the pole location within the APE, and extended into the planted pine for an unknown distance. A representative field specimen sample was collected from the surface around pole 25 (FS 4), as well as 10 m southeast (FS 10) and northeast (FS 6) (Table 3-3). On the basis of testing within the APE, the site measures a minimum of 80-m long, and covers 860 m².

Subsurface cultural materials were first encountered in STP-29, which yielded Herty cup fragments, and small body fragments of amber, clear, blue, and manganesetinted glass, in addition to a large fragment of unidentifiable and unextractable metal hardware. Continued testing to the north in the ROW resulted in comparable historic-era assemblages (Table 3-3). These recovered assemblages are chronologically consonant with those recovered from the adjacent site 8DI249 (Table 3-4), to be described in the following section. In general, the deposits were diffuse, and in one case (STP-30) testing failed to intercept cultural deposits. We were unable to test within 10 m southwest of STP-29 due to marked utilities. However, historic-era artifacts were present on the surface, and we collected a representative sample (FS 4). Continued testing 20- and 30-m south yielded only negative surface and subsurface results. As characterized in STP-29, stratigraphy of the site consists of the following profile: 0-22 cm BS light gray sand with charcoal flecks; 22-40 cm BS mottled pale brown sand with charcoal flecks; 40-100 cm BS pale brown sand. In all cases, artifacts were recovered from the upper stratum within 20 cm of the surface. This stratum appears to be heavily reworked, likely as a result of constructing the ROW and maintaining the firebreak. No standing structures were evident from the APE, and there was no evidence within shovel tests for foundational remains.

Prior to testing this proposed pole location, there was some indication that cultural resources were located nearby. Approximately 10 m north of Pole 23 we encountered two large roadside placards commemorating early 20th-century habitation in the area (Figure 3-5). One sign read "Site of the Butler Turpentine Still, in memory of Benjam S. Butler Jr. owner and the families that lived and worked here in 1910." The other read "Site of the Poley Branch School in memory of the teacher and the Corbin Daughtery-Hogan children that were in school in 1910." None of the archaeological material recovered from 8DI248 suggests that the site is associated with schoolhouse remains.

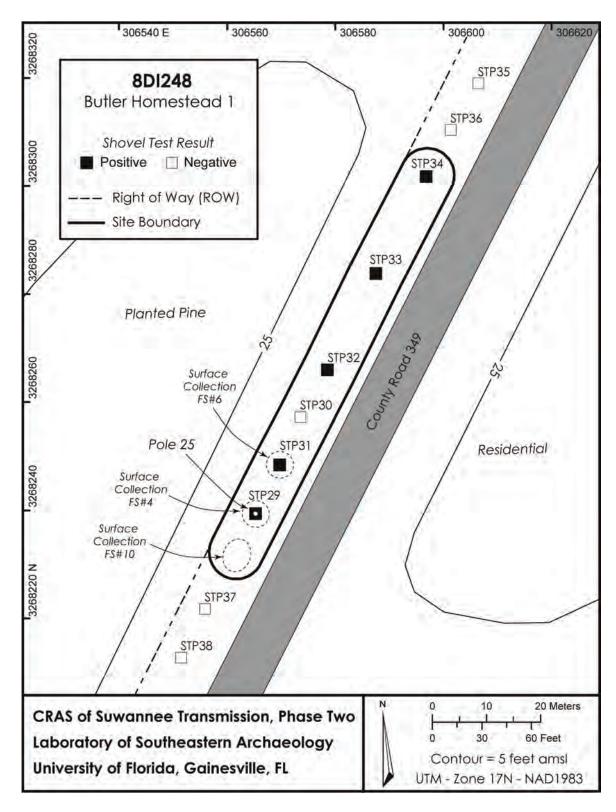


Figure 3-4. Shovel test results map of the Butler Homestead 1 site, 8DI248.



Figure 3-5. Roadside placards displayed in vicinity of the Butler Homestead 1 site, 8DI248.

Archaeological investigations of early 20th-century schoolhouses typically have higher artifact densities and greater artifact variety than is present in 8DI248 (Bohon et al. 2003).

A land patent search revealed a land patent (#250806) dated 3/1/1912 to Benjamin S. Butler, Jr. for the "southwest Quarter of the Northeast Quarter of Section Fifteen in Township Eleven South of Range Thirteen East of the Tallahassee Meridian, Florida, Containing Thirty-Nine and Ninety-Five-Hundredths Acres." This would place this homestead within the vicinity of the project APE in this location. Additionally, a land patent search for Corbin, Daughtery, Hogan, or Daughtery-Hogan revealed a land patent for James Corbin (#191347) dated 4/20/1911 for the "Southeast quarter of the northeast quarter, the west half of the southeast quarter, and the northeast quarter of the southeast quarter of section four in township eleven south of range thirteen east of the Tallahassee Meridian, Florida, containing one hundred sixty-two and fifty-hundredths acres." This location is over 2 km northwest of the site. Collectively, these land patents suggest that occupation within the vicinity of site 8DI248 (and including 8DI246, 8DI247, and

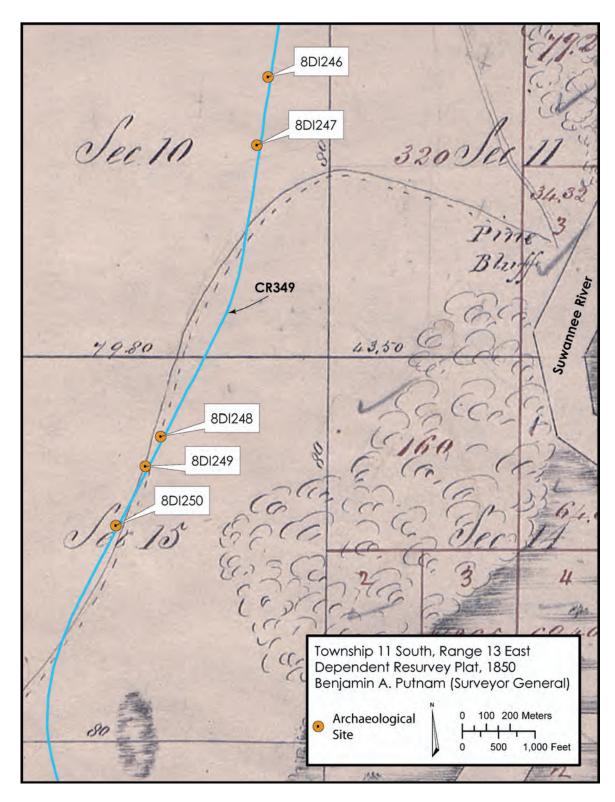


Figure 3-6. Identified archaeological sites and present-day County Road 349 superimposed upon 1850 GLO Survey Plat, Township 11 South, Range 13 East.

Table 3-3. Cultural Materials Recovered from the Butler Homestead 1 site, 8DI248, Located in the Vicinity of Proposed Pole 25.

						Glass	SS						Ceramic	0		Shell	ell				
Shovel		Depth	An	Amber	Aqua	Blue		Clear	Mai	Manganese	WW	N	GE		HC	Cas	Casing	Bı	Brick	Σ	Metal
Test	FS	cm BS	u	wt.	n wt. n wt.	n wt. n wt.	u	WI.	u	wt.	п	wt.	n wt. n wt. n wt.	п	wt.	п	wt. n	n	wt.	n	wt.
29	3	0-20	2	9.1		1 0.4	-	1.3	2	11.3				4	7.2			4	25.3	22	43.9
29 -	7	c	4				+		c	10.7				¥	5 187 0			-	376		
31	1 5	14-24							4	13.1				2 01	17.1				0.12		
31 -	9	c						7.					8	0.0		1 20	2.0				
32	1	0-20	-	4.1			4	15.5			1	0.9	1 2.9				ì			-	3.2
33	∞	0-20			1 0,7		=	10.2	-	6.3									ς		
34	6	0-20					9	7 6.61	7	155.4					8.3			-	4.9		
Surface Between 29 and 37	10	o							m	5.9				00	39.2						

WW = white ware; GE = glazed earthenware, HC = Herty cup

Table 3-4. Cultural Materials Recovered from the Butler Homestead 2 site, 8DI249, Located in the Vicinity of Proposed Pole 26.

				Glas	S		H	١	H	Cera	unics					
Depth	Am	ber	Ag	ua	Ö	ear	Mang	ganese	White W	Ware	Herty	Cup	Me	detal	Lithic	ithic Flake
cm BS	n	wt.	u	wt.	u	wt.	u	wt.	u	wt.	u	wt.	u	wt.	u	wt.
0-20		k	H				ło	ķ		15	ŀ				1	6.0
0-25	7	5.5	14	6.65	1	8.8	6	45.4	7	8.3	-	5.0	4	8.86	-	0.7



Figure 3-7. Selected historic-age artifacts recovered during testing: (a) glazed earthenware; (b-c) white ware (d) 12-gauge Nublack shotgun casing base, (e-f) Herty cup fragments, (g-i) manganese glass.

8DI249) occurred as early as 1912, if not earlier. Finally, an examination of the 1850 General Land Office (GLO) survey plat of the region suggests that there were no structures or habitation sites at the time of survey (Figure 3-6). However, the location of sites 8DI248 and 8DI249 roughly coincides with an extant road that emanated from Pine Bluff on the Suwannee River and traveled south, roughly coincident with the location of present day CR-349.

Dateable artifacts support an early-twentieth-century date range for the site. The purple tint on glass recovered from the site is caused by sunlight reacting over time with the manganese content of the glass. Manganese was used as a clarifying agent in glass until manganese supplies became unstable during World War I. This solarized glass has a date range from ca. 1880 to ca. 1914 (Riordan 1980: 503). Bottle-making technology is also temporally diagnostic. A manganese-tinted bottle base from the site (Figure 3-7i) has diagnostic features indicative of post-1904 production on an Owens automatic bottle-making machine (Riordan 1980:478). By 1917, half of the bottles in the United States were manufactured by such machines (Miller 2000:8). The small body fragments of amber, clear, and blue glass are two small to infer dateable production technology, though all are most likely twentieth century. Mass produced blue glass is most common after 1907 (Riordan 1980).

Ceramics at the site include a small whiteware rimsherd and brown and buff glazed earthenware body sherd (Figure 3-7a), as well as numerous Herty cup fragments (Figure 3-7e, f). The whiteware sherd is too small for maker's mark and other identifying criteria. Whiteware is common from the 1820s to the present (Miller 2000:13). Brown glazed earthenwares were commonly produced throughout the nineteenth and twentieth centuries (Walthall et al. 1991). Again, the small sherd size precludes a more precise time range. Herty-cup fragments found on the surface and in shovel tests at the site are of a type patented in 1904 by Charles Herty and manufactured by the Chattanooga Pottery Company (Reed 1982:171, Herty 1903:9). By the 1920s, the Herty system dominated the turpentine industry in Florida (Reed 1982:175). The presence of these cup fragments suggests post-1904 pine-gum extraction, likely dating to the peak of the Florida turpentine boom (1909-1919) or later. Other temporally diagnostic artifacts include a Winchester Nublack shotgun shell headstamp (Figure 3-7d). The Winchester Repeating Arms Company was established in 1886 (Adams 1980:556). Nublack shells were produced from the turn of the century until approximately 1931 (Jones 2007:13).

8DI249 – Butler Homestead 2

The Butler Homestead 2 site, 8DI249, is a small historic and prehistoric artifact scatter. The site was located while testing the proposed location of Pole 26 (Figure 3-8), and lies roughly 140 m south of site 8DI248. Site 8DI249 is situated on an irregular upland ridge now characterized by planted pine, and the ROW is characterized by scattered grasses, palmetto, and low-lying shrubs. The ROW also shows signs of being recently cut, and the ground appears disturbed. Soils in the area are classified as Ridgewood fine sand. Bottomland hardwood swamps are situated roughly 60 m to the

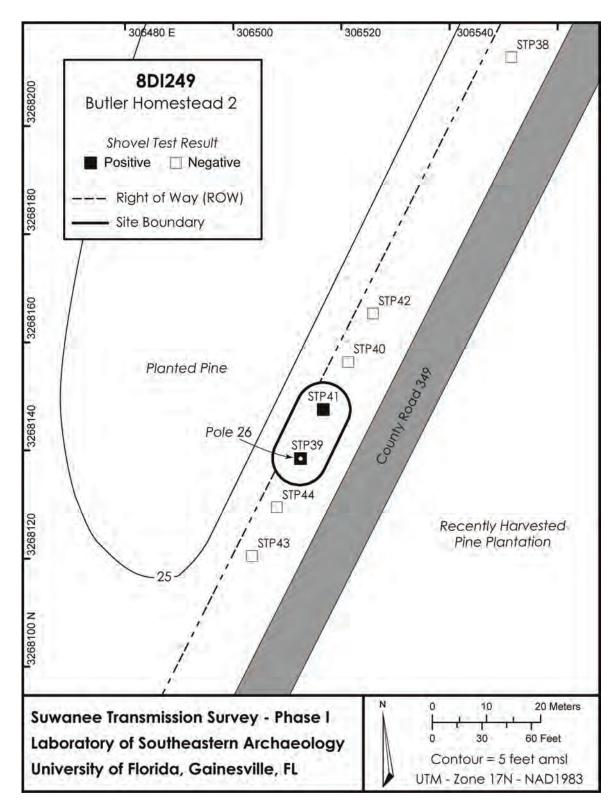


Figure 3-8. Shovel test results map of the Butler Homestead 2 site, 8DI249.

west and 120 m to the east of the site. The site was intersected with two adjacent STPs. In STP-39 a chert waste flake was recovered from between 0 and 20 cm BS. Stratigraphy in this location revealed the following profile: 0-20 cm BS light gray sand; 20-45 cm BS mottled orange and gray sand; 45-100 pale brown sand. The upper strata in this STP were apparently disturbed. The profile of STP-41 consisted of the following strata: 0-25 cm BS mottled light/dark gray sand; 25-100 pale brown sand. Both the historic and prehistoric artifacts were recovered from the upper, likely disturbed, stratum. On the basis of testing within the APE, the site measures a minimum of 20-m long, and covers 178 m².

Site 8DI249 is composed of multiple low-density components dating to the prehistoric and historic eras (Table 3-4). Historic materials recovered include non-diagnostic metal fragments, manganese-tinted glass, small body fragments of amber, clear, and aqua-colored glass, two whiteware sherds, and a Herty-cup fragment. The amber, clear, and aqua glass appears mass produced, using post-1904 technology, but are too fragmentary for more precise dating (Riordan 1980). A manganese-tinted bottle neck recovered from the site can be dated more closely. This artifact (Figure 3-7g) is a prescription bottle with a machine-applied square (straight-sided) patent lip. Machine-applied collars on prescription-style bottles, using manganese glass date to ca. 1892 to ca. 1914 (Riordan 1980). Whiteware is common from the 1820s to the present (Miller 2000:13). The Herty-cup fragment indicates post-1904 pine-gum extraction, likely during the peak of the Florida turpentine boom (1909-1919) or later.

Prehistoric lithic waste flakes were recovered from STP-39 and STP-41. Both flakes were manufactured out of chert, measured between 1.5 and 2 cm, and lacked cortex. One flake was thermally altered while the other was not. Lacking temporally diagnostic artifacts it is unknown when this site was inhabited. Moreover, due to the small sample size and lack of site boundaries it is impossible to determine the function of the site. However, in both assemblage content and location proximate to wetlands it shares similarities with other low-density prehistoric sites located within and near the APE.

Analysis of the historic assemblage from STP-41 indicates a likely date of occupation between 1904 and 1919, though much of the fragmentary glass lacks temporally precise diagnostic criteria and could be later. Based on its location some 80 m southwest of 8DI248, in addition to assemblage characteristics it is likely associated with site 8DI248. Taken together, the possibility of disturbance, and the redundant characteristics of the site's assemblages suggest that site 8DI249 is not eligible for inclusion on the NRHP.

8DI250 – Bascom Gulf 1

The Bascom Gulf 1 site, 8DI250, is a small prehistoric lithic scatter. It was located while testing the proposed location of Pole 28 (Figure 3-9), approximately 270 m south of the Butler Homestead 2 site. Site 8DI250 is situated to the east of planted pine and 20 m north of a bottomland hardwood swamp that was inundated with standing water at the time of testing. Soils in the vicinity of the site are classified as Ridgewood fine

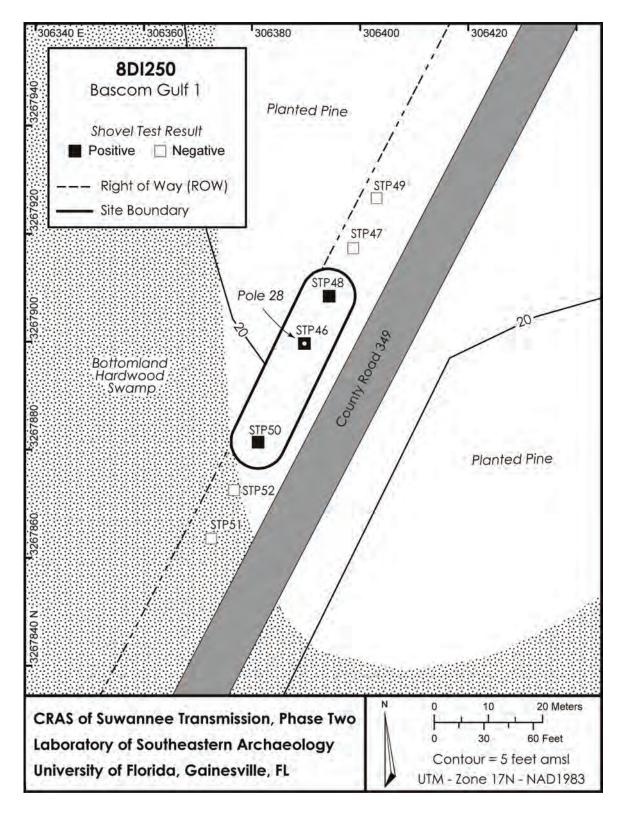


Figure 3-9. Shovel test results map of the Bascom Gulf 1 site, 8DI250.

		Depth	Lith	ic Flake
Shovel Test	FS	cm BS	Count	Weight (g)
46	13	40-60	1	0.1
48	14	40-80	4	0.5
50	15	40-80	3	3.3

Table 3-5: Cultural Materials Recovered from the Bascom Gulf 1 site, 8DI250, Located in the Vicinity of Proposed Pole 28.

sand, while soils within the swamp are classified as Meadowbrook fine sand. The site lies at an elevation of 20 ft amsl, and slopes down slightly to the southwest towards the swamp. On the basis of testing within the APE, the site measures 40 m in length, and covers a minimum of 377 m².

The site was characterized with three positive STP, all of which yielded lithic waste flakes. Cultural deposits were initially encountered within STP-46, tested at the location of pole 28. This STP yielded a single chert waste flake between 40 and 60 cm BS. Continued testing to the northeast extended the site 10 m, while testing to the southwest indicates deposits extend another 20 m, and terminate at the edge of the wetland. In all instances, archaeological deposits appear to be confined to depths between 40 and 80 cm BS. Based on excavations of STP-46, the site is characterized by the following stratigraphic profile: 0-30 cm BS light gray fine sand; 30-100 cm BS pale brown sand. At lower elevations near water, the basal stratum exhibited mottling and gleying typical of hydric soils.

The artifact assemblage of site 8DI250 consists of a total of eight chert waste flakes (Table 3-5). Due to the lack of diagnostic artifacts the chronological association of these finds is unknown, nor do we know if the finds represent single or multiple components. Analysis of the assemblage indicates that the lithic flakes are small, ranging in size between 1 and 3 cm in maximum dimension. All were manufactured from chert, half of which exhibited thermal alteration. Finally, only one flake exhibited dorsal cortex. Based on this limited patterning, it is likely that the assemblage represents late-stage reduction and tool maintenance. Together with the site's proximity to the wetland, the data suggest a limited-duration occupation centered on the exploitation of wetland resources.

Because of the low-density of archaeological deposits, the unlikelihood of generating significant archaeological information, and apparent similarities to other prehistoric sites within and near the APE, we do not consider site 8DI250 as currently characterized to be eligible for nomination to the NRHP.

8DI251 - Bascom Gulf 2

Roughly 4 km south of site 8DI250 lies the Bascom Gulf 2 site, 8DI251, a prehistoric artifact scatter. Site 8DI251 was located while testing the proposed location of Pole 59, and is composed of a single positive STP that yielded prehistoric pottery (Figure 3-10). The site is situated on an elongated upland ridge at an elevation of 20 ft amsl,

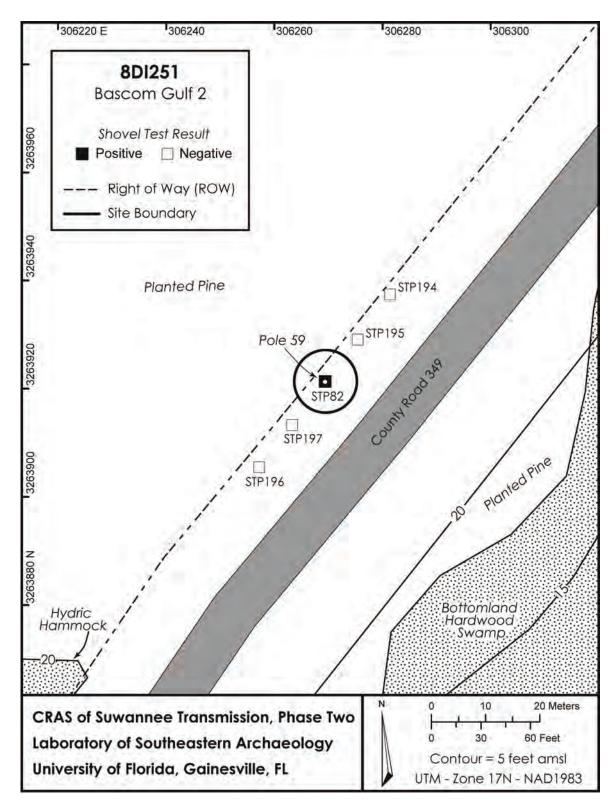


Figure 3-10. Shovel test results map of the Bascom Gulf 2 site, 8DI251.

where planted pine is present on both sides of the ROW. Approximately 35 m to the southeast, lower elevations are characterized by a seasonally flooded bottomland hardwood swamp, and to the southwest there is a hydric hammock. Soils in the location of the site are classified as Ortega sand. On the basis of testing within the APE, the site measures a minimum of 10 m in diameter, and covers 78 m².

Based on excavation of STP-82, the stratigraphy of the site is characterized by the following profile: 0-20 cm BS light gray sand banded with light brown sand; 20-100 pale brown sand. As was noticed elsewhere along the APE, the top 20 cm is likely disturbed by recent land clearing and maintenance of the ROW. The pottery was recovered between 60 and 80 cm BS, suggesting the component is intact.

The material culture assemblage of the site is limited to two aboriginal sand-tempered plain pottery body sherds (Table 3-6). These two sherds crossmended, and exhibited fresh breaks, and thus represent a single sherd broken during excavation (Figure 3-11a). The sherds measure 0.7 cm in thickness, and are characterized by coarse sand inclusions, a reduced core, and oxidized exterior surfaces. Furthermore, the exterior and interior surface were smoothed over. This ware is not very chronologically sensitive, and places occupation of the site anywhere between roughly 2500 and 500 B.P.

Table 3-6: Cultural Materials Recovered from the Bascom Gulf 2 site, 8DI251, Located in the Vicinity of Proposed Pole 59.

		Depth	Sand-tempe	red Plain Sherd
Shovel Test	FS	cm BS	Count	Weight (g)
82	16	60-80	2	11.5

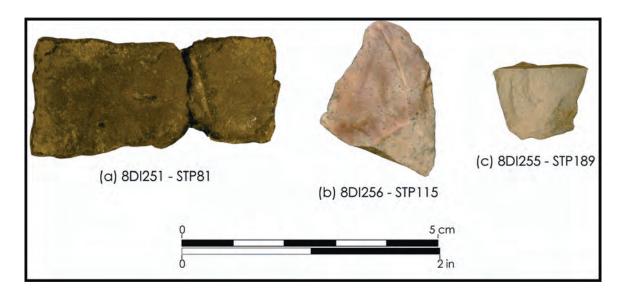


Figure 3-11. Selected prehistoric artifacts recovered during testing: (a) sand-tempered plain sherd, (b) modified chert flake, (c) stemmed hafted biface base.

Collectively the location and low-density nature of site 8DI251 is similar to other prehistoric sites located near the project area. The characteristics of the site indicate that it may have been a short-duration encampment, likely focused on wetland resource acquisition. However, this suggestion must be tempered with the fact that we do not know how far the site may extend to the west away from the APE, nor if there are unaffected portions of the site on the opposing ROW to the east. Because of the low-density of archaeological deposits, the unlikelihood of generating significant archaeological information, and apparent similarities to other prehistoric sites within and near the APE, we do not consider site 8DI251 to be eligible for listing on the NRHP.

8DI252 - Bascom Gulf 3

The Bascom Gulf 3 site, 8DI252, was located while testing the proposed location of Pole 64, roughly 700 m south of site 8DI251, and is composed of a single positive STP with a lithic waste flake (Figure 3-12, Table 3-7). The site is located on an elongated and irregular upland ridge now covered by planted pine on both sides of the ROW at an elevation of 15 ft amsl. Bottomland hardwood swamps are situated no closer than 115 m away to the southwest. Soils in the vicinity of the site are classified as Ridgewood fine sands. On the basis of testing within the APE, the site measures a minimum of 10 m in diameter, and covers 78 m².

Site 8DI253 was intercepted with STP-87 at the location of Pole 64. Continued testing to the northeast and southwest failed to identify any further cultural materials. Based on excavations of STP-87, the stratigraphy of the site is characterized by the following profile: 0-20 cm BS light gray sand; 20-34 cm BS mottled brown and light brown sand; 34-100 cm BS pale brown sand. A single chert waste flake was recovered between 40-60 cm BS, apparently from an intact and undisturbed context. The flake fell within the 2.5 cm size grade, retained some cortex, and was thermally altered.

Because of the low density of the lithic assemblage, the lack of temporally diagnostic material culture, and inadequate boundaries to the west and east, little can be said about the function or chronological position of site 8DI252. As currently bounded and characterized, the site is unlikely to add to archaeological knowledge, and we do not consider it eligible for listing on the NRHP.

Table 3-7: Cultural Materials Recovered from the Bascom Gulf 3 site, 8DI252, Located in the Vicinity of Proposed Pole 64.

		Depth	Lithi	ic Flake
Shovel Test	FS	cm BS	Count	Weight (g)
87	17	40-60	1	0.9

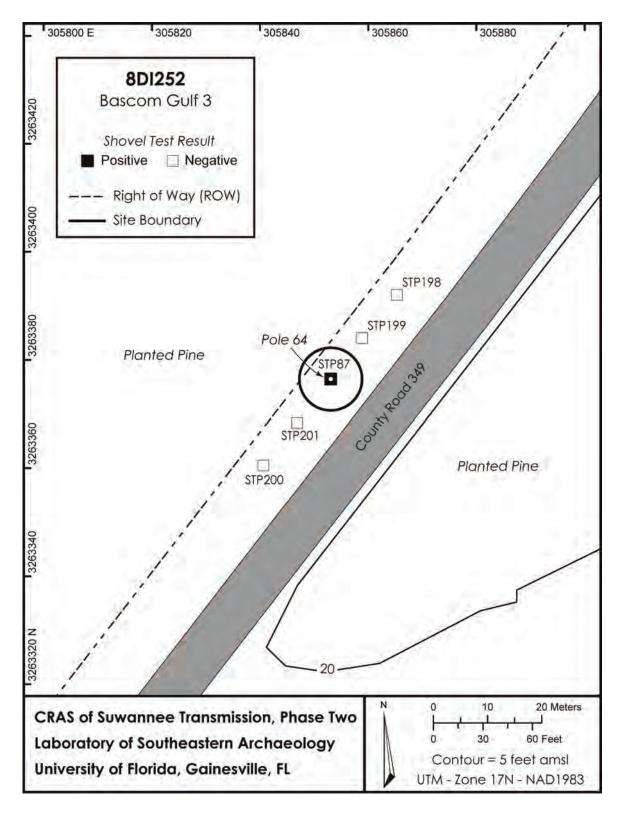


Figure 3-12. Shovel test results map of the Bascom Gulf 3 site, 8DI252. 8DI253 – Bascom Gulf 4

The Bascom Gulf 4 site, 8DI253, is a small prehistoric lithic scatter. The site was located while testing the proposed location of Pole 68 (Figure 3-13). Site 8DI253 lies at an elevation of 15 ft amsl, and is situated 700 m south of site 8DI252. The western boundary of site 8DI253 is composed of planted pine, while the northeastern boundary terminates in a bottomland hardwood swamp which was inundated during testing. This swamp extends to the east and southeast of the site across the opposing ROW. Soils associated with the site are classified as Ridgewood fine sand. The site was intercepted with a total of five positive STPs. Because of the presence of inundated wetland, we were only able to test one STP along the northeastern boundary of the site. Although this does not constitute a double negative, it is unlikely that cultural materials of significant density extend into the swamp. Along the southwestern boundary we encountered another 4 positive STPs. On the basis of testing with the APE, the site measures a minimum of 80 m in length, and covers 780 m².

Testing across the site revealed a repeated soil profile and low-density distribution of lithic waste flakes (Table 3-8). As revealed in STP-91, the stratigraphy of site 8DI253 is composed of the following profile: 0-20 cm BS light gray sand; 20-100 cm BS pale brown sand. Excluding one near-surface find, all lithic waste flakes were recovered between 40 and 80 cm BS. The position of found assemblages indicates that the site is likely intact and largely limited to subsurface finds. Although the lithic assemblage is very small, analysis of the lithic waste flakes suggests that limited late-stage production and maintenance of stone tools occurred on site. All flakes were manufactured from chert. Flakes were small on average, and ranged in size between 0.5 and 3.5 cm in maximum dimension, although 4 (57%) fell within the 2-cm size grade. Only two flakes exhibited cortex, and three were thermally altered.

Collectively, the results of testing indicate that site 8DI253 is a prehistoric lithic scatter associated with a wetland resource. Because of the low density of the lithic assemblage and lack of temporally diagnostic material culture, little can be said about the function or chronological position of the site. Moreover, the site shares many similarities with other prehistoric scatters identified within and near the APE. These characteristics suggest that site 8DI253 represents one example of a widespread and redundant land-use pattern. As currently bounded and characterized, the site is unlikely to add significantly to archaeological knowledge, and we do not consider it eligible for listing on the NRHP.

Table 3-8: Cultural Materials Recovered from the Bascom Gulf 4 site, 8DI253, Located in the Vicinity of Proposed Pole 68.

		Depth	Lithi	c Flake
Shovel Test	FS	cm BS	Count	Weight (g)
91	18	40-60	1	1.7
203	32	60-80	2	2.2
210	35	40-60	1	0.9
212	36	10-60	2	3.3
213	37	60-80	1	0.6

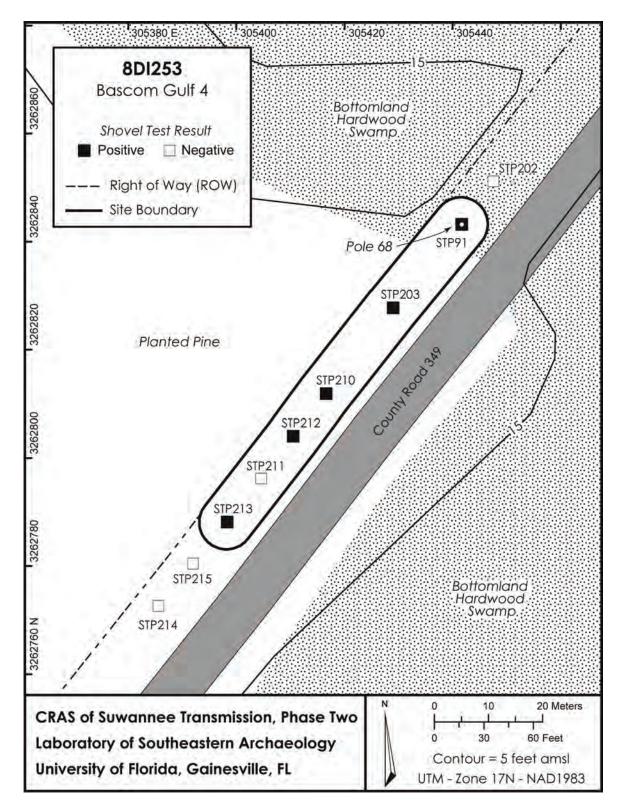


Figure 3-13. Shovel test results map of the Bascom Gulf 4 site, 8DI253.

8DI254 – Bascom Gulf 5

The Bascom Gulf 5 site, 8DI254, is a low-density prehistoric scatter. The site was located while testing the proposed location of Pole 69 (Figure 3-14), roughly 85 m southwest of site 8DI253. Site 8DI254 lies at an elevation of nearly 20 ft amsl on a slight upland rise. The western boundary is composed of planted pine, while beyond the eastern edge of the opposing ROW there is an extensive bottomland hardwood swamp. Soils in the vicinity of the site are classified as Ridgewood fine sand. The site was first encountered while testing STP-92. Continued testing to the northeast in the APE failed to identify any further cultural materials. An additional two positive STPs at 20-m intervals were encountered to the southwest of Pole 69. On the basis of testing within the APE, the site measures of minimum of 50 m in length, and covers 482 m².

Stratigraphy between the three STPs indicates that the site is partially disturbed, likely due in part to clearing the ROW or harvesting planted pine. Both STP-92 and STP-204 revealed a typical, intact profile: 0-20 cm BS light gray sand; 20-100 cm BS pale brown sand. In contrast, STP-205 contained a highly disturbed profile, consisting of the following stratigraphy: 0-40 cm BS mottled tan, brown, and gray sand; 40-80 abundant charcoal and red sand, apparently a stump that burned *in situ*; and 80-100 cm BS white sand.

The material culture assemblage recovered from site 8DI254 was composed of a single sand-tempered plain sherd and 2 lithic waste flakes (Table 3-9). The pottery indicates that site was occupied sometime between 2500 and 500 years ago. The sand-tempered plain sherd was nearly identical to that recovered from site 8DI251, except that it was highly eroded. The body sherd measured 0.9 cm in thickness. The interior and exterior of the sherd was oxidized and lacked surface treatment, while the core was reduced. The two flakes fell into the 2 cm size grade, and were manufactured from thermally altered chert. One flake exhibited dorsal cortex.

The results of testing site 8DI254 indicate that it is a prehistoric lithic scatter associated with a wetland resource. Because the site shares many similarities with other prehistoric scatters identified within and near the APE, it is likely that site 8DI254 represents one example of a widespread and redundant land-use pattern. As currently bounded and characterized, the site is unlikely to add significantly archaeological knowledge, and we do not consider it eligible for listing on the NRHP based on its current characterization.

Table 3-9: Cultural Materials Recovered from the Bascom Gulf 5 site, 8DI254, Located in the Vicinity of Proposed Pole 69.

Shovel		Depth	Lithi	c Flake	Sand -temper	red Plain Sherd
Test	FS	cm BS	Count	Weight (g)	Count	Weight (g)
92	19	40-60			1	3.8
204	34	0	1	1.1		
205	33	40-60	1	0.6		

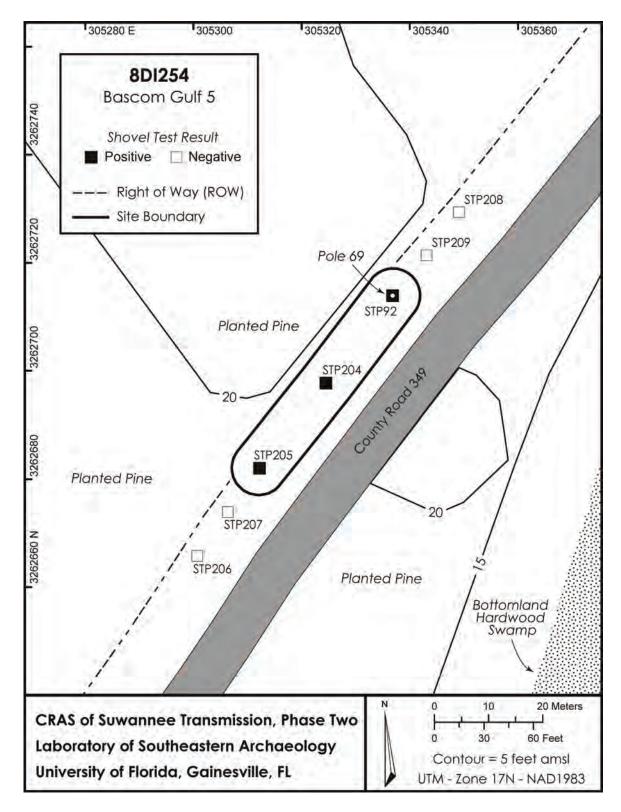


Figure 3-14. Shovel test results map of the Bascom Gulf 5 site, 8DI254

8DI255 – Bascom Gulf 6

The Bascom Gulf 6 site, 8DI255, is a low-density prehistoric lithic scatter. The site was located while testing the proposed location of Pole 90 (Figure 3-15), and is situated 3.3 km southwest of site 8DI254. Site 8DI255 is located at an elevation slightly above 15 ft amsl, and is situated on an upland rise currently covered with planted pine. This upland zone is roughly 50 m northeast of an inundated emergent wetland, and 80 m west of a hydric hammock; neither are evident on the site map. Soils in the vicinity of the site are classified as Ridgewood fine sand. Site 8DI255 was first intercepted while testing STP-113. Continued testing to the northeast failed to identify further cultural materials, and only one additional positive STP was encountered to the southwest. On the basis of testing within the APE, the site measures a minimum of 30 m in length, and covers 277 m².

Testing within site 8DI255 indicates that the cultural deposits are intact, and characterized by a low-density lithic assemblage. As exposed in STP-91, stratigraphy within the site consists of the following profile: 0-15 cm BS light gray sand; 15-90 cm BS orange/pale brown mottled sand; 90-100 cm BS light gray sand. The mottling present within the basal strata is typical of hydric soils near wetlands at low elevations. Cultural materials recovered were limited to a single lithic waste flake from STP-113, and a hafted-biface fragment from STP-189 (Figure 3-11c). The waste flake fell within the 3-cm size grade, was manufactured from non-thermally altered chert, and retained dorsal cortex. The hafted biface fragment measured 0.8 cm in thickness, 1.9 cm in width and 1.5 cm in length. It was manufactured from non-thermally altered chert. Based on the overall morphology of the biface fragment, it appears to be the stem of a hafted biface that broke at the intersection of the haft and the blade element. Lacking the shoulders, it is impossible to determine the culture-historical type and association of the form.

The results of testing site 8DI255 indicate that it is a prehistoric lithic scatter associated with a wetland resource. Because the site shares many similarities with other prehistoric scatters identified within and near the APE, it is likely that site 8DI255 represents one example of a widespread and redundant land-use pattern. As currently bounded and characterized, the site is unlikely to add significantly archaeological knowledge, and we do not consider it eligible for listing on the NRHP.

Table 3-10: Cultural Materials Recovered from the Bascom Gulf 6 site, 8DI255, Located in the Vicinity of Proposed Pole 90.

Shovel		Depth	Lithi	ic Flake	Hafted Bit	face Fragment
Test	FS	cm BS	Count	Weight (g)	Count	Weight (g)
113	20	40-60	1	1.7		
189	31	80-100			1	2.2

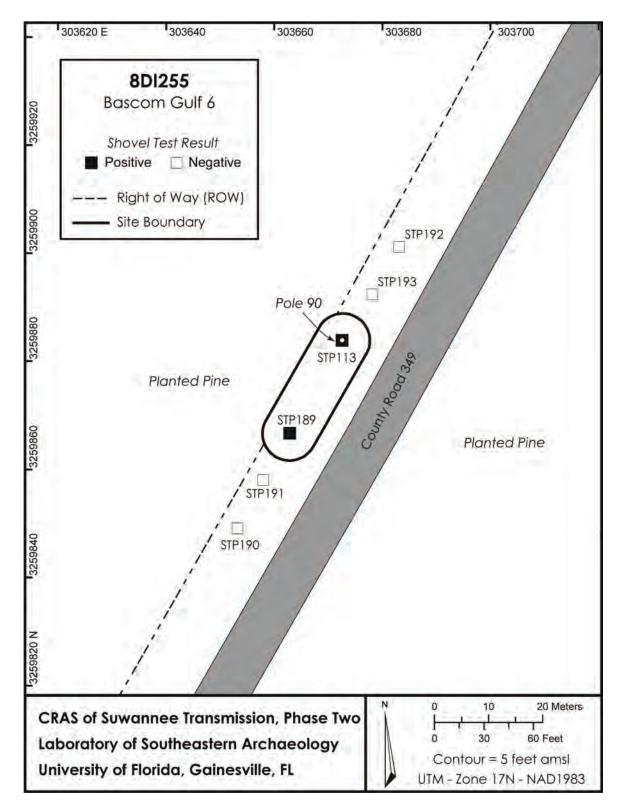


Figure 3-15. Shovel test results map of the Bascom Gulf 6 site, 8DI255.

8DI256 – Bascom Gulf 7

The Bascom Gulf 7 site, 8DI256, is a low-density prehistoric lithic scatter. The site was located while testing the proposed location of Pole 92 (Figure 3-16), approximately 250 m southwest of site 8DI255. Site 8DI256 is located at an elevation of 15 ft amsl, on an irregularly shaped upland ridge covered with relict planted pine. The site is situated at the contact between upland, xeric coverage to the east, and an bottomland hardwood swamp situated some 30 m to the west. This wetland is that same with which site 8DI255 is associated. Soils in the vicinity of site 8DI256 are classified as Ridgewood fine sand. The site was first encountered while testing STP-115. No further cultural materials were recovered to either the northeast or southwest. On the basis of testing within the APE, the site measures a minimum of 10 m in length, and covers 78 m².

As revealed in STP-115, stratigraphy at the site is typified by the following profile: 0-20 cm BS light gray sand; 20-40 cm BS mottled pale brown, brown, and gray sand; 40-100 cm BS pale brown sand. The lithic assemblage was recovered between 40 and 80 cm BS, suggesting that this component of the site is intact. The lithic assemblage is composed of a single chert waste flake, and a marginally modified chert flake (Table 3-11). The waste flake fell within the 2 cm size grade, was thermally altered, and retained dorsal cortex. The marginally modified flake was manufactured out of thermally altered chert that lacked dorsal cortex (Figure 3-11b). One lateral margin exhibited a 2-cm long marginal edge with regular micro-scars. The edge angle was between 30 and 45 degrees. This tool appears to have been either incidentally modified during use, or alternatively, prepared for use. Regardless, the tool is not temporally diagnostic.

The results of testing site 8DI256 provide further data to support the hypothesis of a redundant land-use pattern in this section of Dixie County. In the case of 8DI256, the lithic assemblage is far too small to make any specific conclusion as to the function or chronological association of activities occurring on site. Because the site shares many similarities with other prehistoric scatters identified within and near the APE, it is likely that site 8DI256 represents another example of a upland terrace wetland exploitation. As currently bounded and characterized, the site is unlikely to add significantly archaeological knowledge, and we do not consider it eligible for listing on the NRHP.

Table 3-11: Cultural Materials Recovered from the Bascom Gulf 7 site, 8DI256, Located in the Vicinity of Proposed Pole 92.

Shovel		Depth	Lithi	ic Flake	Mod	ified Flake
Test	FS	cm BS	Count	Weight (g)	Count	Weight (g)
115	21	40-80	1	0.6	1	2.9

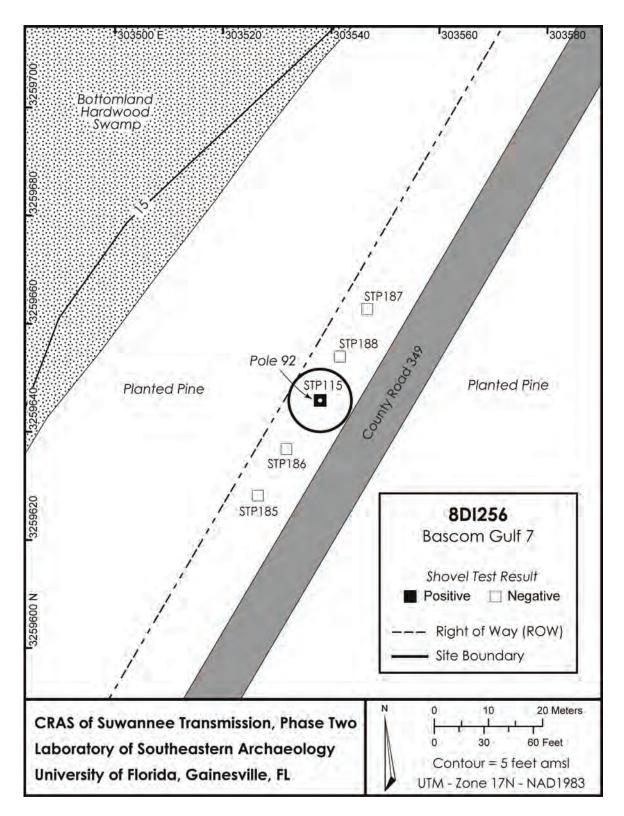


Figure 3-16. Shovel test results map of the Bascom Gulf 7 site, 8DI256.

8DI257 - Bascom Gulf 8

The Bascom Gulf 8 site, 8DI257, is a low-density prehistoric lithic scatter. The site was located while testing the proposed location of Pole 108 (Figure 3-17), approximately 2.5 km southwest of site 8DI256. Site 8DI257 is situated at an elevation of 10 ft amsl, and lies at the intersection between upland xeric planted pine to the east, and a cypress swamp to the west. Soils associated with site 8DI257 are classified as Ridgewood fine sand. The Bascom Gulf 8 site was first intercepted while testing STP-131. Continued testing to the southwest failed to encounter further archaeological deposits. Testing to the north yielded an additional positive STP that was present within the nearly inundated swamp margin. Because of inundation, we could not test more than 10 m north of this positive STP. Due to the diffuse nature of finds, it is possible that the site extends farther past this area along the wetland edge. Alternatively, the site may have been truncated by the construction of the ROW for CR-349. On the basis of testing within the APE, the site measures a minimum of 30 m in length, and covers roughly 279 m².

The limited testing within site boundaries suggests that the archaeological deposits are intact and associated with saturated hydric soils. As revealed in STP-131, stratigraphy at the site is typified by the following profile: 0-40 cm BS dark gray sand; 40-75 cm BS gray sand. We were unable to test past 75 cm BS due to inundation of STP-131, and could not dig past 60 cm BS in STP-183 because of water. The three lithic waste flakes were all recovered between depths of 40 to 60 cm BS (Table 3-12). These three waste flakes were manufactured from chert, and range in size grades between 0.5 and 3.5 cm. Two flakes were thermally altered, and the one non-thermally altered flake also retained dorsal cortex. The lithic assemblage is too small to draw conclusions as to the range of activities occurring on site.

Collectively, the location and assemblage characteristics indicate that site 8DI257 is an intact lithic scatter that likely reflects prehistoric short-duration activities centered on wetland resources. Because of the low density of artifacts, the similarities shared with other sites within the APE, and the unlikelihood of producing significant archaeological knowledge, we do not consider site 8DI257 to be eligible for listing on the NRHP.

Table 3-12: Cultural Materials Recovered from the Bascom Gulf 8 site, 8DI257, Located in the Vicinity of Proposed Pole 108.

		Depth	Lith	ic Flake
Shovel Test	FS	cm BS	Count	Weight (g)
131	22	40-60	2	3.9
183	30	40-60	1	0.3

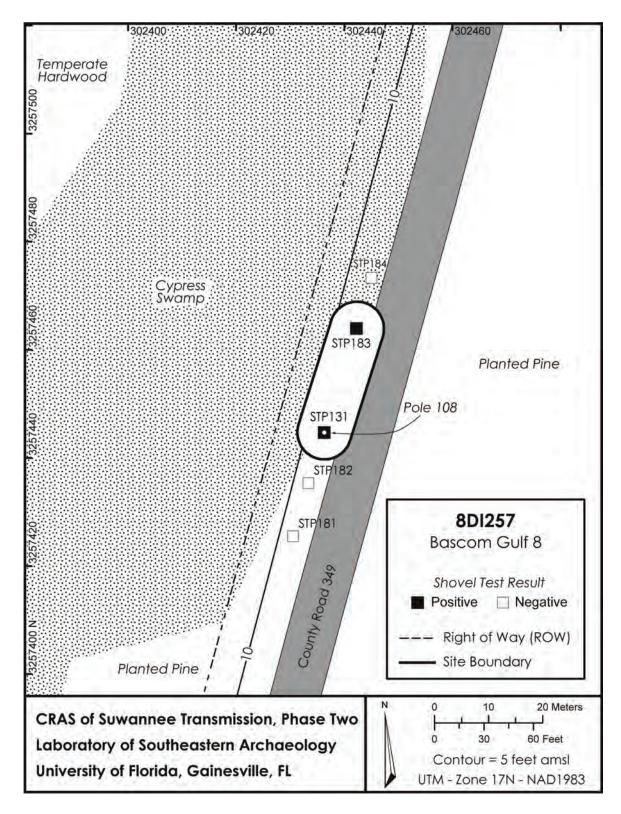


Figure 3-17. Shovel test results map of the Bascom Gulf 8 site, 8DI257.

8DI258 – Bascom Gulf 9

The Bascom Gulf 9 site, 8DI258, is an extensive, if low-density, prehistoric lithic scatter. The site is emplaced 1 km southwest of site 8DI257. Site 8DI258 was discovered while testing the proposed location of Pole 115 (Figure T3-16). Continued testing within the APE located a single positive STP to the southwest, while five positive STPs were identified to the northeast. Site 8DI258 is positioned atop a narrow upland ridge at an elevation of 15 ft amsl, in a xeric zone now characterized by planted pine. Not visible on the site map is an extensive hydric hammock some 90 m to the west of the site, and a bottomland hardwood swamp roughly 120 m to the east of the site. Soils is the vicinity of the site are classified as Ortega sand. Based on testing within the APE, the site measures a minimum of 90 m in length, and covers 879 m².

Excavation within the site boundaries consistently encountered the following stratigraphic profile: 0-20 cm BS gray sand; 20-100 cm BS orange sand. Lithic flakes were routinely recovered between depths of 40-100 cm BS across the site. There is a general trend, however, for flakes being recovered at lower depths as one moves from north to south. Cultural materials were restricted to a total of 11 lithic waste flakes manufactured from chert that ranged in size grade between 1 and 3.5 cm, although six (54%) were within the 1.5 cm grade. The flakes were predominantly thermally altered (n=7), and only three flakes exhibited dorsal cortex. While a small assemblage, the small size and predominance of thermal alteration is suggestive of late-stage tool production and maintenance.

Like all other prehistoric scatters identified within the APE, the location and assemblage characteristics of site 8DI258 are suggestive of limited or short-duration activities centered upon wetland resources. Such a conclusion must be tempered with the lack of well-defined boundaries to the east or west of the site that may contain denser deposits or cultural features. With the current boundaries and characterization, however, site 8DI258 replicates land-use patterns seen elsewhere, and further testing within the APE is unlikely to yield significant archaeological knowledge. On this basis, it is our opinion that the site does not warrant further mitigation, nor is it eligible for listing on the NRHP.

Table 3-13: Cultural Materials Recovered from the Bascom Gulf 9 site, 8DI258, Located in the Vicinity of Proposed Pole 115.

		Depth	Lith	ic Flake
Shovel Test	FS	cm BS	Count	Weight (g)
139	23	80-100	1	0.4
170	24	80-100	1	2.5
173	25	80-100	2	1.4
174	26	80-100	2	3.0
175	27	60-80	1	0.2
177	28	40-60	1	2.5
178	29	40-60	1	0.7

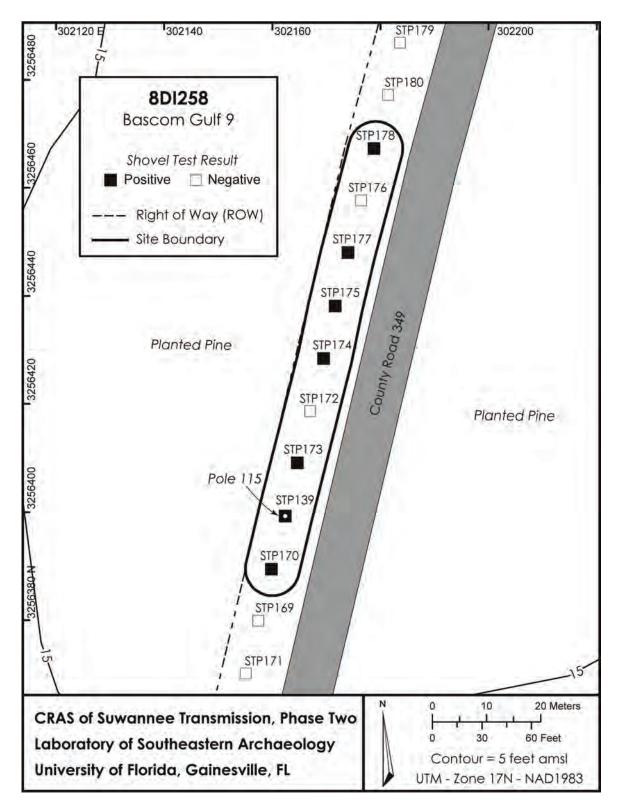


Figure 3-18. Shovel test results map of the Bascom Gulf 9 site, 8DI258.

8DI259 – Keen Historic Cemetery

During the course of pedestrian surface survey between pole locations 110 and 111 we encountered the "Keen Historic Cemetery." The cemetery is marked on the Vista (1993) USGS topographic quadrangle. There is a ca. 2-m high, dark gray granite marker at the southeast corner of the cemetery that reads "Keen Historic Cemetery established approx. 1890." Review of marked graves within the cemetery indicates that this asserted time frame is accurate, and that the cemetery continues to be actively maintained with individuals interred as recently as 2007. On the basis of historic graves from the nineteenth and early twentieth centuries this cemetery was designated site 8DI259 in the FMSF. The cemetery will not be impacted by the proposed work. The location is already spanned by existing transmission lines, and proposed transmission poles are located approximately 35 m to the northeast and southwest of the existing cemetery boundaries (Figure 3-19).

The cemetery is emplaced upon an upland ridge at an elevation of 15 ft amsl. The current boundaries of the cemetery are well marked by a modern 4-foot chain link fence (Figure 3-20a). As currently enclosed, the cemetery is an irregular trapezoidal polygon in shape that measures 70 m East/West and 45 m North/South, and covers 3271 m². The eastern boundary of the cemetery abuts the western ROW, and it is clearly visible from the roadside. Abutting the northern boundary of the cemetery is a line of widely-spaced young live oak trees. This line of trees is set back approximately 5 m from the western fence line of the cemetery by a narrow corridor that appears to be periodically cleared and maintained. The southern boundary consists of a cleared opening that serves as a driveway and parking lot with access to CR-349. It may have also served as a staging area or lay down for pine removal activities as there are piles of brush, rotting stumps, and recent refuse at the southern and western margins of this clearing. Also within the clearing is a U.S. Coast and Geodetic Survey Marker (also known as a National Geodetic Survey Marker) consisting of a concrete stand and brass marker that reads "Keen 1933." South of the clearing is the continuation of live oak trees that form the western border of the cemetery. Outside of this line of trees to the north, south, and west is 5-year-old planted pine. The cemetery is well maintained and actively in use. Ground cover within the cemetery consists of bare ground and low-lying grass. Mostly young live oak are distributed randomly throughout the area. There is no source of running water nearby, but the grass appears to be cut on a regular basis. Finally, the area just outside the northern and western fence line appears to be an active toss zone where real and plastic flowers, commemorative wreaths, and plastic mementos are regularly disposed.

Visual inspection of headstones and grave plots indicates a mixture of individual and family plots are present. Small granite markers for siting plots are spaced regularly throughout the cemetery grounds. In most case, family plots are marked by low lying chains, granite curbs, or PVC pipe curbs. Unaffiliated or individual graves were aligned in rows consonant with family plots. A total of 87 marked graves were identified during a pedestrian survey of the cemetery. The earliest death date is 1893, and the most recent is 2007. All graves are oriented east-west. The majority of headstones were manufactured

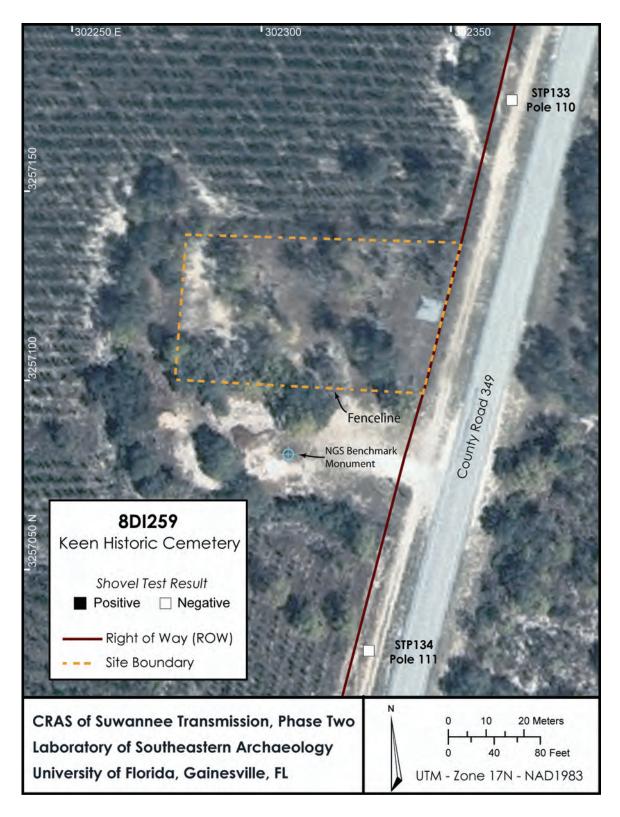


Figure 3-19. Location of the Keen Historic Cemetery, site 8DI259, superimposed on a 2007 digital orthophoto.

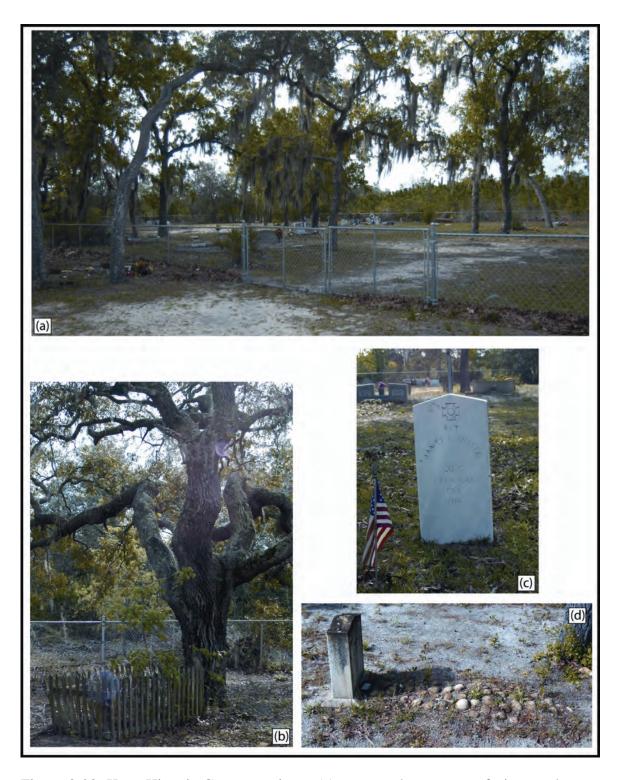


Figure 3-20. Keen Historic Cemetery views: (a) near southeast corner facing northwest; (b) gravesite of Mattie Anderson (d. 1893) with recent picket fence, facing southwest; (c) headstone of CSA Pvt. James Oliver (d. 1919), facing west; (d) marble headstone and quahog shell mound (ca. 1950), facing north.

from gray or black granite. No artisan inscriptions were evident on any headstones. In general, the graves are in very good condition, and there was no evidence for either vandalized or cracked and broken headstones. All headstones with writing were legible.

The cemetery appears to have undergone several periods of use and abandonment. The earliest gravesite is Mattie Anderson, a one-year-old child who died in 1893. The plot is located in the southwest corner of the cemetery, and is situated at the base of the largest live oak (Figure 3-20b). The headstone is a small, low-lying marble slab, with a 2foot high rotting and termite-infested picket fence surrounding the plot. The next most recent gravesite was for C.S.A. Private James L. Oliver (d. 1919) (Figure 3-20c). The next chronological cluster of graves occurred between 1940 and 1960. Headstones of this era tend to be made of marble. A prevalent practice at this time, which may be associated with related kin, was the emplacement of quahog shell in mounds over burial sites (Figure 3-20d). After 1970 the cemetery became of place of routine interment, and it may be that the picket fence surrounding the grave of Mattie Anderson was erected at this point in time. Headstones at this time are all manufactured from granite, and show a wide range of stylistic choices. Most are simple, with names of the interred and short inscriptions. Others, however, are elaborate with marble slabs covering the entire plot. These slabs were routinely inscribed with nature scenes or hobbies (such as fishing, hunting, or trucks). The cemetery is obviously a place of frequent commemoration today. All recent graves showed some recent sign of improvement, including the laying of wreaths, photographs, or small mementos. Many family plots were constructed with a granite seat, while others retain plastic chairs.

This general outline of use and abandonment is supported by the field description and notes associated with the NGS monument (www.gs.noaa.gov). When the station was established in 1933, the recorder noted that the station benchmark was "on land owned by the Putnam Lumber Co., 0.3 mile (sic) N of Frank Keens (sic) house, and just E of a small cemetery on the W side of the road. At present, the cemetery is surrounded with new fence posts, which have no wire on them." By 1933, the cemetery appears to have been in use. However, we should note that no burial plot for Frank Keen is marked today. When the NGS resurveyed the station in 1940 they referred to the cemetery as "abandoned." In 1960 the recorder refers to an "old fence" that surrounded the cemetery. After 1960, however, no further mention is made of the status of the cemetery.

The extent to which the chain-link fence marks the original cemetery boundary is unknown. In our limited pedestrian survey we failed to identify any sunken areas or broken headstones outside of the chain-link fence. However, there are several lines of evidence that suggest the current configuration may be smaller or different that it was initially. The live oaks surrounding both the clearing and the cemetery imply a that the area was kept clear or segregated from pine planting for an extended period of time. Secondly, the cemetery was associated with the Frank Keen homestead, but there was no Keen headstone marked in the cemetery. While all of this information is circumstantial, given the history of land-use and periods of abandonment, there is a significant probability for unmarked graves either within or adjacent to the current cemetery borders.

Collectively the survey and historic document search indicate that the Keen Historic Cemetery was in use between at least 1893 and the present day. All told the site is in good condition, and is frequently maintained by family and community members. The majority of graves post-date 1950, and only three predate 1920. There are no notable headstones, and there are no individuals of local, regional, or national significance. Following the guidelines set forth by Potter and Boland (1992), we do not consider site 8DI259 eligible for listing on the NRHP.

DISCUSSION

The structure of the Suwannee Transmission, Phase Two scope of work precluded using a predictive model to test for sites within the APE. CR-349 provides somewhat of a random, longitudinal transect across the upland terrace landform, but within this transect the proposed pole locations were the factor determining where cultural resources would potentially be discovered. Moreover, because of inherent limits of testing within a corridor, we do not know the full extent of most sites identified. Regardless, several patterns in the long-term land-use of this portion of Dixie County have emerged from the reconnaissance survey. These patterns build upon the observations made by recent surveys proximate to the project area.

The location and assemblage content of prehistoric sites hints at a widespread and redundant land-use practice. Prehistoric sites are overwhelmingly associated with Ridgewood fine sand and Ortega sand. These soils are typical of elevated knolls and ridges that are frequently emplaced adjacent to wetlands, hydric hammocks, or bottomland hardwood swamps. In fact, no site was more than 115 m away from a source of water, and some may have been positioned to exploit more than one wetland resource at a time. Analysis of the material culture demonstrates that all sites (excluding 8DI251) are characterized by low-density lithic assemblages that are mostly composed of chert waste flakes. By treating all flakes (n=36) recovered during survey as a statistical population a general idea of the structure of lithic utilization is possible. As a whole, the lithic assemblages are characterized by small flakes (no flake was greater than 3.5 mm in maximum extent) manufactured from chert. More than half of the sample (n=21, 58%) was thermally altered, and the majority of flakes (n=25, 70%) lacked cortex. A chi-square test of independence failed to show an association between thermal alteration and cortex (chi-square = 1.081, 1 df, p=0.29). Moreover, only one flake could be classified as shatter. Taken as a whole, the waste flake assemblage is suggestive of limited late-stage bifacial tool production, and more likely tool maintenance. Lithic tools were quite rare, and include only a hafted biface fragment and a laterally modified flake. Non-lithic assemblages were limited to sand tempered plain sherds recovered from sites 8DI251 and 8DI254. Unfortunately, these provide only a broad temporal association for the assemblages (ca. 2500-500 B.P.). However, the infrequent occurrence dovetails with the low-density lithic assemblages.

The assemblage composition and density of prehistoric sites are suggestive of short-duration occupations that consisted of a limited range of onsite activities. The location of the sites implies that they were situated to take advantage of one or more

wetland resources on the landform. When combined with the results of ACI's (2006) research at the Sunnyvale Mitigation Area, it would appear that prehistoric sites are likely present throughout the knolls and uplands of the Lower Coastal Plain, at least in the vicinity of the Suwannee River. Because of the limited scope of work conducted during this survey, we cannot say to what extent these sites represent single or multiple occupations, nor can we state with any certainty if they were contemporaneous. It is also unknown how such sites may relate functionally to those identified within the Suwannee River floodplain or along the coast. As a long-term research goal, future work at such sites within the region will be necessary to determine whether they contain distinct intrasite activity areas, or if they are spatially homogeneous.

Historic era assemblages (8DI246-248, 8DI259) were chronologically restricted, but represent multiple activities associated with homestead establishment and pine pitch extraction during the late nineteenth and early twentieth century. Testing within sites 8DI248 and 8DI249 yielded evidence suggesting that a structure was once present in the area. However, because of the low density of finds, poor preservation, and a lack of architectural foundations, it is impossible to state what kind of structure may have been present there. The presence of many Herty cup fragments would suggest that it was used in part for storage, but that does not preclude the presence of a residence elsewhere outside of the APE. Moreover, both sites were situated on an upland knoll, and are associated with Ridgewood find sand. While a somewhat poorly drained soil, this landform is higher and drier than the surrounding environment. Another component of this land-use practice is evidenced by the recovery of Herty cup fragments at 8DI246 and 8DI247. These were recovered in soils that are frequently flooded, but which can be associated with pine trees. Such sites likely represent extraction loci that would have been present throughout the landform. A final component of this historic land-use pattern is evidenced by the Keen Historic Cemetery. As presently marked, there are only three early graves that range in date from 1893 to 1919. These individuals interred were likely associated with homesteads that had been recently established in the region.

CHAPTER 4 CONCLUSIONS AND RECOMMENDATIONS

Asa R. Randall

The CRAS performed by the LSA of the Suwannee Transmission, Phase Two project corridor consisted of archival research, pedestrian surface survey, and subsurface testing of proposed transmission pole locations. Archival research indicated that no cultural resources had been previously identified within the study area. Reconnaissance survey within the APE resulted in the discovery of 14 archaeological sites. This total includes 13 historic and prehistoric artifact scatters (8DI246-258) and one historic cemetery (8DI259) that is still actively maintained and used. A summary of the location, soil association, and culture-historical components present at each site is provided in Table 4-1.

NRHP ELIGIBILITY CONSIDERATIONS

The archival research and field reconnaissance work provided data for evaluating the eligibility of discovered cultural resources for the NRHP. It is the opinion of the LSA that none of the documented sites, as characterized within the APE, meet the criteria for listing as either individual sites or cultural resource groups.

Five sites with historic-era components were identified. Four of these sites (8DI246-249) will be directly impacted by transmission pole installation. Sites 8DI246 and 8DI247 consist of single artifact finds that represent widespread and welldocumented turpentine extraction practices. In both cases it is unlikely that further archaeological assemblages are present, and further work would not result in new archaeological knowledge. Sites 8DI248 and 8DI249 are similarly associated with early twentieth-century homesteads and turpentine extraction practices. In both cases the sites may appear to represent the remains of structures or refuse heaps. However, the results of the reconnaissance survey demonstrated that no standing structures were present either within or immediately adjacent to the APE. Moreover, stratigraphic evidence indicates that both sites are heavily disturbed, and that the archaeological deposits are not intact. It is unknown if the sites were destroyed during construction of CR-349 or if the scattered debris has resulted from maintenance and clearing of the ROW and associated firebreak. Continued archaeological testing within the APE is unlikely to contribute new archaeological knowledge. The Keen Historic Cemetery (8DI259) will not be directly impacted by the project, and it is currently spanned by existing transmission lines. The site is well maintained and appears largely intact, but does not meet the criteria set forth for NRHP listing. There are no notable individuals interred there, no rare grave marker types or carver inscriptions, and it does not represent a poorly documented social group or ethnicity.

Ten sites with prehistoric components were identified (8DI249-258). This total includes the one lithic waste flake recovered from site 8DI249. All sites are characterized by low-density artifact scatters that are composed almost exclusively of lithic waste

Table 4-1. Summary of Sites Discovered during Reconnaissance Survey.

FMSF Designation	Name	Pole	Soil	Area (m²)	Eleva- tion (ft)	Water Dist. (m)	Easting"	Northing ^a	Township- Range-Section	USGS Quad	Culture Historical Association
D100246	Anderson 1	41	Clara and Meadowbrook soils, frequently flooded	78	25	40	307027	3269773	T11S-R13E-S10	Fanning Springs (1993)	ca. AD 1900- 1920
D100247	Reed	20	Clara and Meadowbrook soils, frequently flooded	78	25	100	306981	3269487	T11S-R13E-S10	Fanning Springs (1993)	ca. AD 1900- 1920
D100248	Butler Homestead 1	25	Ridgewood fine sand	098	25	120	306579	3268267	TIIS-RI3E-SI5	Fanning Springs (1993)	ca. AD 1900- 1920
D100249	Butler Homestead 2	26	Ridgewood fine sand	178	25	80	306514	3268143	TIIS-RI3E-SI5	Fanning Springs (1993)	ca. AD 1900- 1920; Unknown Prehistoric
DI00250	Bascom Gulf 1	28	Ridgewood fine sand	377	20	20	306391	3267894	T11S-R13E-S15	Fanning Springs (1993)	Unknown Prehistoric
D100251	Bascom Gulf 2	65	Ortega sand	78	20	35	306269	3263921	T11S-R13E-S27	Manatee Springs (1988)	ca. 2500- 500 BP
D100252	Bascom Gulf 3	49	Ridgewood fine sand	78	20	115	305853	3263376	T11S-R13E-S34	Vista (1993)	Unknown Prehistoric
D100253	Bascom Gulf 4	89	Ridgewood fine sand	780	15	0	305420	3262816	T11S-R13E-S33	Vista (1993)	Unknown Prehistoric
D100254	Bascom Gulf 5	69	Ridgewood fine sand	482	20	30	305325	3262698	T11S-R13E-S33	Vista (1993)	ca. 2500- 500 BP
DI00255	Bascom Gulf 6	06	Ridgewood fine sand	277	20	20	303668	3259875	T12S-R13E-S8	Vista (1993)	Unknown Prehistoric
DI00256	Bascom Gulf 7	92	Ridgewood fine sand	78	20	30	303538	3259646	T12S-R13E-S8	Vista (1993)	Unknown Prehistoric
D100257	Bascom Gulf 8	108	Ridgewood fine sand	279	01	0	302439	3257454	T12S-R13E-S17	Vista (1993)	Unknown Prehistoric
D100258	Bascom Gulf 9	115	Ortega sand	879	15	06	302169	3256428	T12S-R13E-S19	Vista (1993)	Unknown Prehistoric
D100259	Keen Historic Cemetery	<u>-</u> ==	Ortega sand	3271	15	06	302301	3257106	T12S-R13E-S19	Vista (1993)	ca. A.D. 1893 - Present

flakes. Only two sites (8DI251, 8DI254) could be placed within a specific time frame based on dateable sand tempered plain sherds (ca. 2500-500 B.P.). Excluding site 8DI249, all sites appear to contain intact deposits. These deposits are emplaced in a narrow strip between the constructed eastern ROW and the edge of the APE corridor. Collectively the sites appear to represent a widespread and redundant land-use pattern. Continued testing within the APE is unlikely to contribute new archaeological knowledge.

RECOMMENDATIONS

The proposed installation of transmission line poles by the Suwannee Transmission, Phase Two project will directly impact all subsurface archaeological sites identified within the APE during survey. It is our opinion that cultural resources at each pole location do not warrant continued archaeological work. However we do have several recommendations for mitigating the impact on sites outside of the boundaries of each pole location:

- 1. Excavation or land alteration within determined archaeological site boundaries should not extend past the surveyed transmission pole location.
- 2. The construction of staging yards or the establishment of equipment lay down yards should occur outside of established site boundaries.
- 3. All staging yards, equipment storage, or any other ground alteration should be avoided between poles 110 and 111, including the parking lot for the cemetery, site 8DI259. This area spans the present and likely historic boundaries of the Keen Historic Cemetery, and may contain unmarked graves.

In addition to lessening the surface and subsurface impact to intact archaeological deposits, these recommendations will decrease the potential for unanticipated discoveries.

REFERENCES CITED

Adams, W. H.

1980 Waverly Plantation: Ethnoarchaeology of a Tenant Farming Community. Technical report submitted by Resource Analysts, Inc. to U.S. Army Corps of Engineers, Mobile District.

ACI (Archaeological Consultants, Inc.)

- 1995 A Cultural Resources Assessment Survey of the Suwannee Wastewater System Project Area, Dixie County, Florida. Prepared for Jones, Edmunds & Associates, Inc. and Darabi & Associates, Inc. by Archaeological Consultants, Incorporated.
- 2006 Cultural Resource Assessment Survey of the Sunnyvale Mitigation Area, Dixie County, Florida. Prepared for the Suwannee River Water Management District by Archaeological Consultants, Inc.

Austin, R. J.

- 2001 Paleoindian and Archaic Archaeology in the Middle Hillsborough River Basin: A Synthetic Overview. Report Prepared for Tampa Bay Water, Inc. by Southeastern Archaeological Research, Inc.
- 2004 Multidisciplinary Investigations at West Williams, 8Hi509: An Archaic Period Archaeological Site Located within Florida Gas Transmission Company's Bayside Lateral Pipeline Corridor, Hillsborough County, Florida. Report submitted to Florida Gas Transmission Company, Inc. by Southeastern Archaeological Research.
- 2006 Knife and Hammer: An Exercise in Positive Deconstruction. The I-75 Project and Lithic Scatter Research in Florida. Florida Anthropological Society, Publication No. 16, Tallahassee.

Austin, R. J. and R. W. Estabrook

2000 Chert Distribution and Exploitation in Peninsular Florida. *The Florida Anthropologist* 53(2-3):116-130.

Bense, J. A.

1985 Hawkshaw: Prehistory and History in an Urban Neighborhood in Pensacola, Florida. Report of Investigations, 7, UWFCA.

Bland, M. C. P. and M. A. Chance

2000 An Intensive Cultural Resource Assessment Survey of the Fanning Springs State Recreation Area, Levy County, Florida. Prepared for Fanning Springs State Recreation Area by Environmental Services, Inc.

Bohon, K. J., E. Gilliland, H. Huffman, J. Roberts and C. Rooney

2003 Management Summary of Data Recovery of the Becky Wright Schoolhouse Sites 3cw993 and 3cw1024, Lake Fort Smith Water Supply Project, Crawford County, Arkansas. Prepared by Burns & McDonnell Engineering Company, Inc. for the U.S. Army Corps of Engineers, Little Rock District. Copies Available from the Arkansas Archeological Survey, Fayetteville.

Borremans, N. T.

1990 North Peninsular Gulf Coast, 2500 B.P. - A.D. 1600. In *Florida's Comprehensive Historic Preservation Plan*. Division of Historical Resources, Tallahassee.

Borremans, N. T. and M. E. Moseley

1990 A Prehistoric Site Survey of the Cedar Keys Region of Coastal Levy County, Florida. Report of Investigations submitted to the Division of Historical Resources, Florida Department of State.

Bullen, R.

1975 A Guide to the Identification of Florida Projectile Points. Revised ed. Kendall Books, Gainesville.

Butler, C.

1998 *Treasures of the Longleaf Pine Naval Stores*. Shalimar, Florida, Tarkel Publishing.

Clausen, C. J., A. D. Cohen, C. Emiliani, J. A. Holman and J. J. Stipp

1979 Little Salt Springs, Florida: A Unique Underwater Site. *Science* 203(4381):609-614.

Cooke, C. W.

1939 *Scenery of Florida Interpreted by a Geologist.* Florida Geological Survey Bulletin no. 17, Tallahassee.

Daniel, I. R. and M. Wisenbaker

1987 Harney Flats: A Florida Paleo-Indian Site. Baywood Publishing Company, Inc., Farmingdale, New York.

Daniel, I. R., M. Wisenbaker and G. Ballo

1986 The Organization of a Suwannee Technology: The View from Harney Flats. *The Florida Anthropologist* 39(1&2):24-56.

Davidson, J., E. Roberts and C. Rooney

2006 Preliminary Results of the 2006 University of Florida Archaeological Field School Excavations at Kingsley Plantation, Fort George Island, Florida. *African Diaspora Archaeology Network Newsletter* September.

References Cited 65

Dibble, E. F.

1999 Giveaway Forts: Territorial Forts and the Settlement of Florida. *Florida Historical Quarterly* 78:207-233.

Doran, G. H.

2002a The Windover Radiocarbon Chronology. In *Windover: Multidisciplinary Investigations of an Early Archaic Florida Cemetery*, edited by G. H. Doran, pp. 59-72. University Press of Florida, Gainesville.

2002b Introduction to Wet Sites and Windover (8BR246) Investigations. In Windover: Multidisciplinary Investigations of an Early Archaic Florida Cemetery, edited by G. H. Doran, pp. 1-38. University Press of Florida, Gainesville.

Dunbar, J. S., M. K. Faught and D. S. Webb

1988 Page/Ladson (8Je591): An Underwater Paleo-Indian Site in Northwestern Florida. *The Florida Anthropologist* 41(3):442-452.

Dunbar, J. S. and B. Waller

1983 A Distribution Analysis of the Clovis/Suwannee Paleo-Indian Sites of Florida: A Geographic Approach. *The Florida Anthropologist* 36(1):18-30.

Dunbar, J. S. and S. D. Webb

1996 Bone and Ivory Tools from Submerged Paleoindian Sites in Florida. In *The Paleoindian and Early Archaic Southeast*, edited by D. G. Anderson and K. E. Sassaman, pp. 331-. University of Alabama Press, Tuscaloosa.

Faught, M. K.

2004 The Underwater Archaeology of Paleolandscapes, Apalachee Bay, Florida. *American Antiquity* 69(2):275-289.

FDHR (Florida Division of Historical Resources)

1990 Florida Historical Contexts. Florida Department of State, Tallahassee.

2002 Cultural Resource Management Standards and Operational Manual. Florida Division of Historical Resources, Tallahassee.

Hann, J.

1996 A History of Timucua Indians and Missions. University Press of Florida, Gainesville.

Healy, H. G.

1975 Terraces and Shorelines of Florida. *Map Series 71*. Marine Terraces of Florida. Florida Department of Natural Resources, Bureau of Geology, Tallahassee.

Herty, C.

1903 *A New Method of Turpentine Orcharding*. Bureau of Forestry Bulletin Number 40, Washington, D. C.

Johnson, G. M. and T. A. Kohler

1987 Toward a Better Understanding of North Peninsular Gulf Coast Florida Prehistory: Archaeological Reconnaissance in Dixie County. *The Florida Anthropologist* 40(4):275-286.

Jones, P. J. and N. T. Borremans

1991 An Archaeological Survey of the Gulf Hammock, Florida. Report of Investigations submitted to the Florida Department of State, Division of Historical Resources, Bureau of Historic Preservation, prepared by the Seahorse Key Maritime Adaptations Program at the University of Florida.

Kaucher, D.

1972 The Suwannee. Kirstein & Sons, Orlando.

Kohler, T. A. and G. M. Johnson

1986 *Dixie County Archaeological Reconnaissance, Winter 1985/86.* Department of Anthropology, Washington State University.

Lazarus, W. G.

1958 A Poverty Point Complex in Florida. *The Florida Anthropologist* 2(1):23-32.

Liudahl, K., R. L. Weatherspoon and E. L. Readle

2005 Soil Survey of Dixie County, Florida. United States Department of Agriculture, Natural Resources Conservation Service; in cooperation with the University of Florida Institute for Food and Agricultural Sciences, Washington, D. C.

Martinkovic, M.

2003 Land Use Patterns in the Naval Stores Industry. Thesis Proposal, University of West Florida. Manuscript on file at the Laboratory of Southeastern Archaeology, University of Florida.

Milanich, J. T.

1994 Archaeology of Precolumbian Florida. University Press of Florida, Gainesville.

1999 Laboring in the Fields of the Lord: Spanish Missions and Southeastern Indians. Smithsonian Institution Press, Washington, D. C.

Milanich, J. T. and C. H. Fairbanks

1980 Florida Archaeology. New World Archaeological Record. Academic Press, New York.

References Cited 67

Mossa, J. and J. Konwinski

1998 Thalweg Variability at Bridges along a Large Karst River: The Suwannee River, Florida. *Engineering Geology* 49:15-30.

Neill, W. T.

1964 Trilisa Pond, an Early Site in Marion County, Florida. *The Florida Anthropologist* 17(187-200).

Perry, P.

1968 The Naval-Stores Industry of the Old South, 1790-1860. *The Journal of Southern History* 34(4):509-526.

Potter, E. W. and B. M. Boland

1992 Guidelines for Evaluating and Registering Cemeteries and Burial Places.

Nation Register Bulletin 41. U.S. Department of the Interior, National Park Service, Interagency Resources Division, National Register of Historic Places, Washington.

Purdy, B. A.

1975 The Senator Edwards Chipped Stone Workshop Site (8-Mr-122), Marion County, Florida: A Preliminary Report of Investigations. *The Florida Anthropologist* 28:178-189.

Puri, H. S., J. W. Yon and W. R. Oglesby

1967 Geology of Dixie and Gilchrist Counties, Florida. Division of Geology, Tallahassee.

Reed, G.

Saving the Naval Stores Industry: Charles Holmes Herty's Cup-and-Gutter Experiments 1900-1905. *Journal of Forest History* 26(4):168-175.

FDNR (Florida Division of Natural Resources)

1990 A Guide to the Natural Communities of Florida. Division of Natural Resources, Tallahassee.

Russo, M.

1996 Southeastern Mid-Holocene Coastal Settlements. In *The Archaeology of the Mid-Holocene Southeast*, edited by K. E. Sassaman and D. G. Anderson, pp. 177-199. University Press of Florida, Gainesville.

Sassaman, K. E.

2003a Crescent Lake Archaeological Survey 2002: Putnam and Flagler Counties, Florida. Technical Report 5. Laboratory of Southeastern Archaeology, Department of Anthropology, the University of Florida, Gainesville.

Sassaman, K. E. (continued)

2003b New AMS Dates on Orange Fiber-Tempered Pottery from the Middle St. Johns Valley and their Implications for Culture History in Northeast Florida. *The Florida Anthropologist* 56(1):5-14.

Schmidt, W.

1997 Geomorphology and Physiography of Florida. In *The Geology of Florida*, edited by A. F. Randazzo and D. S. Jones, pp. 1-12. University of Florida Press, Gainesville.

Schulderein, J.

1996 Geoarchaeology and the Mid-Holocene Landscape History of the Greater Southeast. In *Archaeology of the Mid-Holocene Southeast*, edited by K. E. Sassaman and D. G. Anderson, pp. 3-27. University of Florida Press, Gainesville.

Ste. Claire, D.

- 1987 The Development of Thermal Alteration Technologies in Florida: Implications for the Study of Prehistoric Adaptations. *The Florida Anthropologist* 40(3):203-208.
- 1990 The Archaic in East Florida: Archaeological Evidence from Early Coastal Adaptations. *The Florida Anthropologist* 43:189-197.

Taylor, Z.

1840 Extract from a Report, 1840 Apr. 14, Fort Fanning, [Florida] to J90el] R. Poinsett, Secr[Etra]Y of War / Br[Evet] Br[Igadier] Gen[Era]L Z[Archary] Taylor Date: 1840 Apr. 14. Document Id: Tcc811, Digital Library of Georgia. Electronic Document.

Thomas, P. M. and L. J. Campbell

1991 The Elliott's Point Complex: New Data Regarding the Localized Poverty Point Expression on the Northwest Florida Gulf Coast, 2000 B.C. - 500 B.C. *Geoscience and Man* 29:103-119.

Watts, W. A., E. C. Grimm and T. C. Hussey

1996 Mid-Holocene Forest History of Florida and the Coastal Plain of Georgia and South Carolina. In *Archaeology of the Mid-Holocene Southeast*, edited by K. E. Sassaman and D. G. Anderson, pp. 28-38. University of Florida Press, Gainesville.

Weinstein, R. A. and K. L. Mayo

2006 Historic Assessment and Cultural Resources Survey for the Suwannee River O&M Project's Upland Disposal Site, Dixie County, Florida. Prepared for Jacksonville District U.S. Army Corps of Engineers, Jacksonville, Florida by Coastal Environments, Inc.

References Cited 69

Weisman, B. R. and C. L. Newman

1995 An Inventory of the Cultural and Historical Resources at the Fanning Springs Greenway State Conservation and Recreation Area. C.A.R.L. Archaeological Survey, Florida Bureau of Archaeological Research.

White, N. M.

2003 Testing Partially Submerged Shell Middens in the Apalachicola Estuarine Wetlands, Franklin County, Florida. *The Florida Anthropologist* 56(1):15-45.

2004 Late Archaic Fisher-Foragers in the Apalachicola-Lower Chattahoochee Valley, Northwest Florida-South Georgia/Alabama. In *Signs of Power: The Rise of Cultural Complexity in the Southeast*, edited by J. L. Gibson and P. J. Carr, pp. 10-25. The University of Alabama Press, Tuscaloosa.

White, W. A.

1970 *The Geomorphology of the Florida Peninsula*. Bureau of Geology Division of Interior Resources Florida, no. 51, Tallahassee.

White, W. B.

1988 Geomorphology and Hydrology of Karst Terrains. Oxford University Press, New York.

Willey, G. R.

1949 Archeology of the Florida Gulf Coast Smithsonian Miscellaneous Collections, Vol. 113. Smithsonian Institution, Washington D.C.

Wilson, H. J.

1841 Henry J. Wilson Papers, Mss. 559, Louisiana and Lower Mississippi Valley Collections. In *LSU Libraries*, Baton Rouge, Louisiana.

APPENDIX A: POLE LOCATIONS AND SHOVEL TEST RESULTS

Pole	Shovel Test	Result	Field Specimen	Site Number	Northing	Easting	Field Date
1	1	NEGATIVE			3271617	307318	3/10/2008
2	2	NEGATIVE			3271477	307296	3/10/2008
3	3	NEGATIVE			3271313	307273	3/10/2008
4	4	NEGATIVE			3271160	307249	3/10/2008
5	5	NEGATIVE			3271007	307222	3/10/2008
6	6	NEGATIVE			3270875	307202	3/10/2008
7	7	NEGATIVE			3270735	307186	3/10/2008
8	8	NEGATIVE			3270595	307157	3/10/2008
9	9	NEGATIVE			3270463	307136	3/10/2008
10	10	NEGATIVE			3270329	307114	3/10/2008
11	11	NEGATIVE			3270182	307089	3/10/2008
12	12	NEGATIVE			3270046	307068	3/10/2008
13	13	NEGATIVE			3269922	307051	3/10/2008
14	14	POSITIVE	1	8DI246	3269773	307027	3/10/2008
14	15	NEGATIVE			3269793	307031	3/10/2008
14	16	NEGATIVE			3269783	307029	3/10/2008
14	17	NEGATIVE			3269754	307025	3/10/2008
14	18	NEGATIVE			3269763	307026	3/10/2008
15	19	NEGATIVE			3269635	307000	3/10/2008
16	20	POSITIVE	2	8DI247	3269487	306981	3/10/2008
17	21	NEGATIVE			3269347	306958	3/10/2008
18	22	NEGATIVE			3269192	306934	3/10/2008
19	23	NEGATIVE			3269038	306909	3/10/2008
20	24	NEGATIVE			3268882	306873	3/10/2008
21	25	NEGATIVE			3268729	306812	3/10/2008
22	27	NEGATIVE			3268609	306751	3/10/2008
23	26	NEGATIVE			3268467	306676	3/10/2008
24	28	NEGATIVE			3268352	306620	3/10/2008
25	29	POSITIVE	3	8DI248	3268239	306565	3/11/2008
25	30	NEGATIVE			3268257	306574	3/11/2008
25	31	POSITIVE	5	8DI248	3268248	306570	3/11/2008
25	32	POSITIVE	7	8DI248	3268266	306579	3/11/2008
25	33	POSITIVE	8	8DI248	3268284	306588	3/11/2008
25	34	POSITIVE	9	8DI248	3268302	306597	3/11/2008
25	35	NEGATIVE			3268319	306606	3/11/2008
25	36	NEGATIVE			3268310	306601	3/11/2008
25	37	NEGATIVE			3268222	306556	3/11/2008
25	38	NEGATIVE			3268213	306551	3/11/2008
26	39	POSITIVE	11	8DI249	3268139	306512	3/11/2008
26	40	NEGATIVE		-	3268156	306521	3/11/2008
26	41	POSITIVE	12	8DI249	3268148	306517	3/11/2008
26	42	NEGATIVE			3268165	306526	3/11/2008
26	43	NEGATIVE			3268121	306504	3/11/2008
26	44	NEGATIVE			3268130	306508	3/11/2008
27	45	NEGATIVE			3268018	306451	3/11/2008
28	46	POSITIVE	13	8DI250	3267899	306393	3/11/2008

Pole	Shovel Test	Result	Field Specimen	Site Number	Northing	Easting	Field Date
28	47	NEGATIVE			3267917	306402	3/11/2008
28	48	POSITIVE	14	8DI250	3267908	306398	3/11/2008
28	49	NEGATIVE	1.	021230	3267926	306407	3/11/2008
28	50	POSITIVE	15	8DI250	3267881	306385	3/11/2008
28	51	NEGATIVE	15	021230	3267863	306376	3/11/2008
29	52	NEGATIVE			3267872	306380	3/11/2008
29	53	NEGATIVE			3267734	306305	3/11/2008
30	54	NEGATIVE			3267603	306238	3/11/2008
31	55	NEGATIVE			3267473	306178	3/11/2008
32	56	NEGATIVE			3267342	306127	3/11/2008
33	57	NEGATIVE			3267069	306088	3/12/2008
34	58	NEGATIVE			3267199	306098	3/12/2008
35	59	NEGATIVE			3266936	306103	3/12/2008
36	60	NEGATIVE			3266817	306135	3/12/2008
37	61	NEGATIVE			3266703	306173	3/12/2008
38	n/a	AVOID			3266591	306210	3/12/2008
39	62	NEGATIVE			3266486	306249	3/12/2008
40	63	NEGATIVE			3266363	306292	3/12/2008
41	64	NEGATIVE			3266235	306337	3/12/2008
42	65	NEGATIVE			3266105	306382	3/12/2008
43	66	NEGATIVE			3265943	306440	3/12/2008
44	67	NEGATIVE			3265787	306494	3/12/2008
45	68	NEGATIVE			3265629	306555	3/12/2008
46	69	NEGATIVE			3265484	306607	3/12/2008
47	70	NEGATIVE			3265368	306647	3/12/2008
48	71	NEGATIVE			3265261	306686	3/12/2008
49	72	NEGATIVE			3265155	306727	3/12/2008
50	73	NEGATIVE			3265044	306770	3/12/2008
51	74	NEGATIVE			3264917	306796	3/12/2008
52	75	NEGATIVE			3264793	306798	3/12/2008
53	76	NEGATIVE			3264644	306773	3/12/2008
54	77	NEGATIVE			3264522	306723	3/12/2008
55	78	NEGATIVE			3264413	306653	3/12/2008
56	79	NEGATIVE			3264288	306554	3/12/2008
57	80	NEGATIVE			3264166	306460	3/12/2008
58	81	NEGATIVE			3264032	306355	3/12/2008
59	82	POSITIVE	16	8DI251	3263921	306269	3/12/2008
59	194	NEGATIVE			3263927	306281	4/6/2008
59	195	NEGATIVE			3263929	306275	4/6/2008
59	196	NEGATIVE			3263925	306257	4/6/2008
59	197	NEGATIVE			3263913	306263	4/6/2008
60	84	WET			3263686	306094	3/12/2008
61	83	NEGATIVE			3263816	306194	3/12/2008
62	85	NEGATIVE			3263571	306002	3/12/2008
63	86	NEGATIVE			3263461	305918	3/13/2008
64	87	POSITIVE	17	8DI252	3263376	305853	3/13/2008

	Shovel		Field	Site			
Pole	Test	Result	Specimen	Number	Northing	Easting	Field Date
64	198	NEGATIVE			3263392	305865	4/6/2008
64	199	NEGATIVE			3263384	305859	4/6/2008
64	200	NEGATIVE			3263361	305841	4/6/2008
64	201	NEGATIVE			3263368	305847	4/6/2008
65	88	NEGATIVE			3263176	305698	3/13/2008
66	89	NEGATIVE			3263070	305619	3/13/2008
67	90	NEGATIVE			3262964	305536	3/13/2008
68	91	POSITIVE	18	8DI253	3262843	305442	3/13/2008
68	202	NEGATIVE			3262851	305448	4/6/2008
68	203	POSITIVE	32	8DI253	3262828	305429	4/6/2008
68	210	POSITIVE	35	8DI253	3262812	305417	4/7/2008
68	211	NEGATIVE			3262796	305405	4/7/2008
68	212	POSITIVE	36	8DI253	3262804	305411	4/7/2008
68	213	POSITIVE	37	8DI253	3262788	305398	4/7/2008
68	214	NEGATIVE			3262773	305386	4/7/2008
68	215	NEGATIVE			3262780	305392	4/7/2008
69	92	POSITIVE	19	8DI254	3262714	305337	3/13/2008
69	204	POSITIVE	34	8DI254	3262698	305325	4/6/2008
69	205	POSITIVE	33	8DI254	3262682	305312	4/7/2008
69	206	NEGATIVE			3262666	305301	4/7/2008
69	207	NEGATIVE			3262674	305306	4/7/2008
69	208	NEGATIVE			3262729	305349	4/7/2008
69	209	NEGATIVE			3262721	305343	4/7/2008
70	93	NEGATIVE			3262600	305258	3/13/2008
71	94	NEGATIVE			3262464	305166	3/13/2008
72	95	NEGATIVE			3262326	305083	3/13/2008
73	96	NEGATIVE			3262210	305013	3/13/2008
74	97	NEGATIVE			3262094	304943	3/13/2008
75	98	NEGATIVE			3261939	304857	3/13/2008
76	99	NEGATIVE			3261793	304772	3/13/2008
77	100	NEGATIVE			3261654	304692	3/13/2008
78	101	NEGATIVE			3261531	304622	3/13/2008
79	102	NEGATIVE			3261402	304547	3/13/2008
80	103	NEGATIVE			3261278	304473	3/13/2008
81	104	NEGATIVE			3261147	304397	3/13/2008
82	105	NEGATIVE			3261009	304317	3/13/2008
83	106	NEGATIVE			3260868	304236	3/13/2008
84	107	NEGATIVE			3260725	304154	3/13/2008
85	108	NEGATIVE			3260583	304075	3/13/2008
86	109	NEGATIVE			3260447	303994	3/13/2008
87	110	NEGATIVE			3260297	303912	3/13/2008
88	111	NEGATIVE			3260164	303834	3/13/2008
89	112	NEGATIVE			3260032	303757	3/13/2008
90	113	POSITIVE	20	8DI255	3259884	303673	3/13/2008
90	189	POSITIVE	31	8DI255	3259867	303663	3/23/2008
90	190	NEGATIVE			3259849	303653	3/23/2008

Pole	Shovel Test	Result	Field Specimen	Site Number	Northing	Easting	Field Date
90	191	NEGATIVE	,		3259858	303658	3/23/2008
90	192	NEGATIVE			3259901	303683	3/23/2008
90	193	NEGATIVE			3259892	303678	3/23/2008
91	114	NEGATIVE			3259746	303593	3/13/2008
92	115	POSITIVE	21	8DI256	3259646	303538	3/13/2008
92	185	NEGATIVE			3259628	303526	3/23/2008
92	186	NEGATIVE			3259637	303532	3/23/2008
92	187	NEGATIVE			3259663	303547	3/23/2008
92	188	NEGATIVE			3259654	303542	3/23/2008
93	116	NEGATIVE			3259519	303465	3/14/2008
94	117	NEGATIVE			3259376	303383	3/14/2008
95	118	NEGATIVE			3259234	303295	3/14/2008
96	121	NEGATIVE			3259115	303227	3/22/2008
97	122	NEGATIVE			3258971	303146	3/22/2008
98	123	NEGATIVE			3258845	303073	3/22/2008
99	124	NEGATIVE			3258706	302994	3/22/2008
100	125	NEGATIVE			3258570	302916	3/22/2008
101	126	NEGATIVE			3258437	302839	3/22/2008
102	127	NEGATIVE			3258301	302762	3/22/2008
103	128	NEGATIVE			3258166	302686	3/22/2008
104	n/a	AVOID			3258027	302615	3/22/2008
105	129	NEGATIVE			3257904	302560	3/22/2008
106	119	NEGATIVE			3257745	302510	3/14/2008
107	130	NEGATIVE			3257602	302472	3/22/2008
108	131	POSITIVE	22	8DI257	3257445	302436	3/22/2008
108	181	NEGATIVE			3257426	302431	3/23/2008
108	182	NEGATIVE			3257435	302433	3/23/2008
108	183	POSITIVE	30	8DI257	3257464	302442	3/23/2008
108	184	NEGATIVE			3257473	302445	3/23/2008
109	132	NEGATIVE			3257306	302394	3/22/2008
110	133	NEGATIVE			3257174	302361	3/22/2008
111	134	NEGATIVE			3257029	302323	3/22/2008
112	135	NEGATIVE			3256880	302283	3/22/2008
113	137	NEGATIVE			3256712	302238	3/22/2008
114	138	NEGATIVE			3256560	302202	3/22/2008
115	139	POSITIVE	23	8DI258	3256399	302162	3/22/2008
115	169	NEGATIVE			3256380	302157	3/23/2008
115	170	POSITIVE	24	8DI258	3256390	302160	3/23/2008
115	171	NEGATIVE			3256370	302155	3/23/2008
115	172	NEGATIVE			3256419	302167	3/23/2008
115	173	POSITIVE	25	8DI258	3256409	302165	3/23/2008
115	174	POSITIVE	26	8DI258	3256428	302169	3/23/2008
115	175	POSITIVE	27	8DI258	3256438	302172	3/23/2008
115	176	NEGATIVE			3256458	302176	3/23/2008
115	177	POSITIVE	28	8DI258	3256448	302174	3/23/2008
115	178	POSITIVE	29	8DI258	3256467	302179	3/23/2008

	Shovel		Field	Site			
Pole	Test	Result	Specimen	Number	Northing	Easting	Field Date
115	179	NEGATIVE			3256487	302184	3/23/2008
115	180	NEGATIVE			3256477	302181	3/23/2008
116	n/a	AVOID			3256260	302122	3/23/2008
117	140	NEGATIVE			3256112	302085	3/23/2008
118	141	NEGATIVE			3255993	302045	3/22/2008
119	142	NEGATIVE			3255868	301989	3/22/2008
120	143	NEGATIVE			3255757	301919	3/22/2008
121	144	NEGATIVE			3255621	301810	3/22/2008
122	145	NEGATIVE			3255509	301688	3/22/2008
123	146	NEGATIVE			3255431	301592	3/22/2008
124	147	NEGATIVE			3255338	301476	3/22/2008
125	n/a	WET			3255270	301397	3/22/2008
126	148	NEGATIVE			3255200	301306	3/22/2008
127	149	NEGATIVE			3255124	301208	3/22/2008
128	162	NEGATIVE			3255054	301121	3/23/2008
129	150	NEGATIVE			3254961	301001	3/22/2008
130	151	NEGATIVE			3254873	300894	3/22/2008
131	152	NEGATIVE			3254788	300787	3/22/2008
132	153	NEGATIVE			3254677	300650	3/22/2008
133	154	NEGATIVE			3254581	300529	3/22/2008
134	156	NEGATIVE			3254480	300398	3/22/2008
135	157	NEGATIVE			3254385	300278	3/22/2008
136	158	NEGATIVE			3254282	300147	3/22/2008
137	159	NEGATIVE			3254186	300029	3/22/2008
138	160	NEGATIVE			3254092	299909	3/22/2008
139	161	NEGATIVE			3254002	299794	3/22/2008
140	n/a	WET			3253925	299705	3/14/2008
141	120	NEGATIVE			3253845	299605	3/14/2008
142	163	NEGATIVE			3253769	299505	3/23/2008
143	164	NEGATIVE			3253684	299399	3/23/2008
144	165	NEGATIVE			3253603	299296	3/23/2008
145	166	NEGATIVE			3253510	299174	3/23/2008
146	167	NEGATIVE			3253434	299082	3/23/2008
147	168	NEGATIVE			3253365	298998	3/23/2008