Alachua County, Board of County Commissioners
Department of Growth Management
10 SW 2nd Ave., Gainesville, Fl 32601
Tel. 352.374.5249, Fax. 352.338.3224
http://growth-management.alachuacounty.us

Submit to:
Development Services Division

ENVIRONMENTAL RESOURCES ASSESSMENT CHECKLIST

Pursuant to Alachua County Comprehensive Plan 2002, as amended, Conservation Open Space Element Policy 3.4.1, applications for land use change, zoning change, and development approval shall be required to submit an inventory of natural resource information. The inventory shall include site specific identification, analysis and mapping of each resource present on or adjacent to the site. The identification and analysis shall indicate information sources consulted.

Natural Resources Checklist:

Check "Yes" for each resource or resource characteristic identified and discuss and provide supporting material.
Check "N/A" for each resource or resource characteristic not present or otherwise relevant to the application.

Yes	☐	N/A	☑	Surface Waters (ponds, lakes, streams, springs, etc.)
Yes	☐	N/A	☑	Wetlands
Yes	☐	N/A	☑	Surface Water or Wetland Buffers
Yes	☐	N/A	☑	Floodplains (100-year)
Yes	☑	N/A	☐	Special Area Study Resource Protection Areas (Cross Creek, Idylwild/Serenola, etc)
Yes	☑	N/A	☐	Strategic Ecosystems (within or adjacent to mapped areas)
Yes	☑	N/A	☐	Significant Habitat (biologically diverse natural areas)
Yes	☑	N/A	☐	Listed Species/Listed Species Habitats (FNAI S1, S2, & S3; State or Federally E, T, SSC)
Yes	☐	N/A	☑	Recreation/Conservation/Preservation Lands
Yes	☑	N/A	☐	Significant Geological Features (caves, springs, sinkholes, etc.)
Yes	☑	N/A	☐	High Aquifer Recharge Areas
Yes	☐	N/A	☑	Wellfield Protection Areas
Yes	☐	N/A	☑	Wells
Yes	☑	N/A	☐	Soils
Yes	☐	N/A	☑	Mineral Resource Areas
Yes	☑	N/A	☐	Topography/Steep Slopes
Yes	☑	N/A	☐	Historical and Paleontological Resources
Yes	☐	N/A	☑	Hazardous Materials Storage Facilities
Yes	☐	N/A	☑	Contamination (soil, surface water, ground water)

SIGNED: _____ **PROJECT #**_____ **DATE:**1/14/2026

For assistance please visit the Alachua County Environmental Protection Department (ACEPD) website at http://www.alachuacounty.us/government/depts/epd/natural/devchecklist.aspx or contact ACEPD at (352) 264-6800. (version 5/20/05)

Phase I Cultural Resource Assessment Survey of the Hickory Sink Special Area Plan Alachua County, Florida

Alachua County Permit Application No.: 2024-TBA
DHR Project File No.: 2024-TBD

Conducted for:
England-Thims & Miller (ETM)
Jacksonville, Florida

Prepared by:
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Christina Cole, M.A., Research Director
Heritage Cultural Services, LLC
St. Augustine, Florida

June 2024

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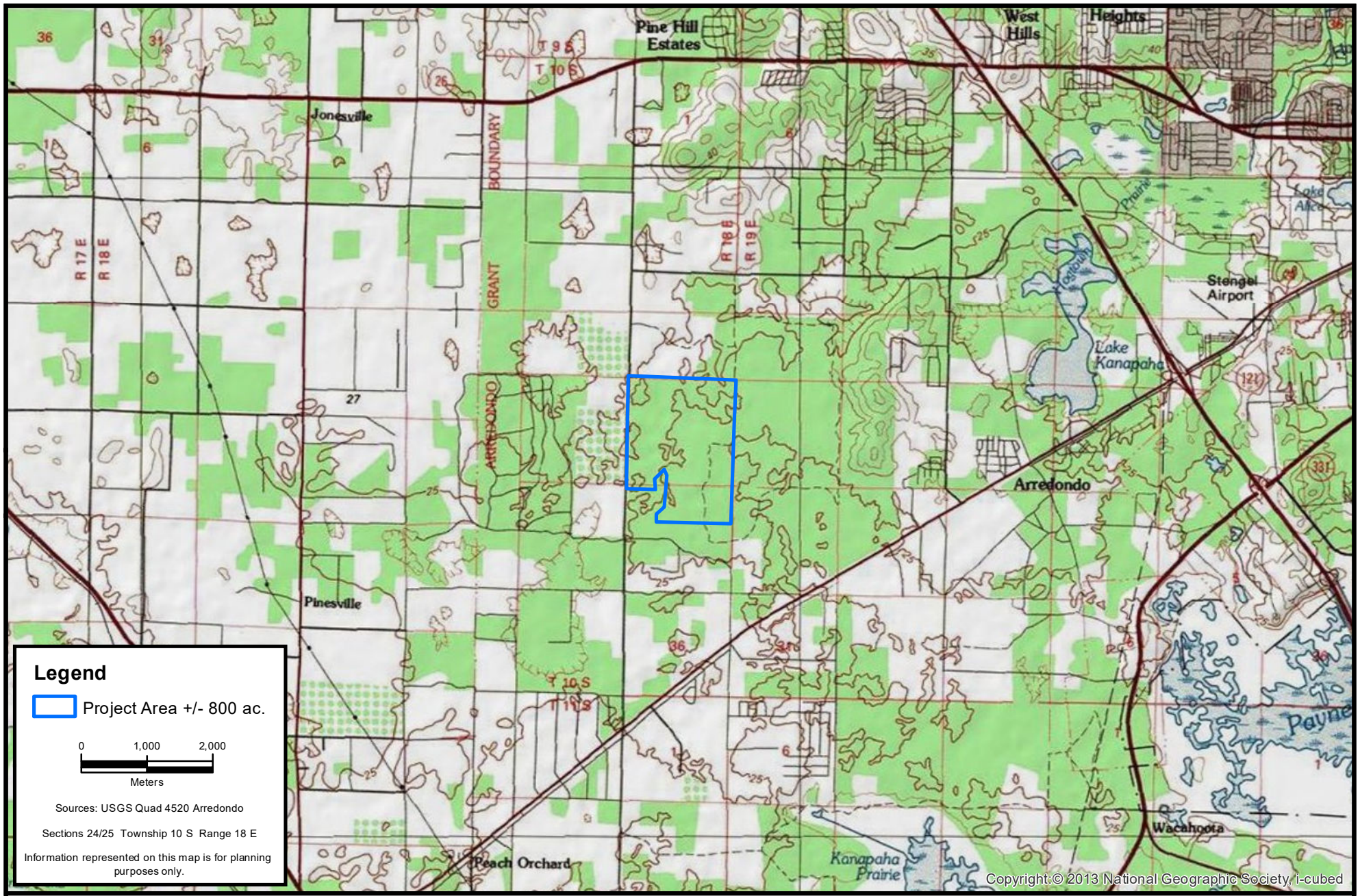
Introduction

This document reports the findings of an archaeological and historical survey of the proposed 800-acre Hickory Sink Special Area Plan, City of Gainesville, Alachua County, Florida, conducted for England-Thims & Miller (ETM), Jacksonville, Florida (Division of Historical Resources File No. 2024-0000). The survey was undertaken to satisfy the cultural resource requirements of the County of Alachua and the Florida Division of Historical Resources (DHR)/State Historic Preservation Office (SHPO), pursuant to permitting constructs of the Alachua County LDC and state cultural resource provisions contained in contained in Section 380.06, Chapters 267 and 373, Florida Statutes. The authority for this procedure is Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665 amended), and 36 CFR Part 800: Protection of Historic Properties; 33 CFR 325; Appendix C. The purpose of the cultural resource assessment survey was to locate any archaeological and/or historical sites within the project area and to assess their potential eligibility for nomination to the *National Register of Historic Places.* The authority for this procedure is Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665) as amended, and 36 CFR Part 800: Protection of Historic Properties. This final report of findings is designed to provide Alachua County and the DHR/SHPO with information resulting from the subject cultural resource assessment survey for their review regarding potential impact of the proposed development on historical and archaeological sites. The State Historic Preservation Office (SHPO) advises State and Federal agencies as they identify historic properties (listed or eligible for listing in the *National Register of Historic Places*), assess effects upon them, and consider alternatives to avoid or minimize adverse effects.

The 800-acre Hickory Sink Special Area Plan is located off Parker Road (C.R. 23; SW 122nd Street) in Gainesville; Section 24, Township 10 South, Range 18 East. In general, the subject parcel is bounded by Parker Road on the west and the legal boundaries of private agricultural lands on the north, south and east (see Figures 1 - 2). Excepting delineated wetlands, these project perimeters bound the **Area of Potential Effect (APE)** as defined by Section 106 of the National Historic Preservation Act of 1966 (Public Law 89-665) as amended.

A search of the Florida Master Site File (FMSF), Florida Division of Historical Resources (DHR) conducted on January 26, 2024, indicated that four archaeological sites were located on the subject parcel, and that other similar cultural resources were recorded for the general area (see attached FMSF documents). For reference, the FMSF provides rosters of archaeological and historical sites, as well as previous CRAS surveys conducted in the surrounding areas. This database was examined thoroughly to identify any cultural resources that may fall into the study area and to develop a project-specific site predictive model as part of a comprehensive research design.



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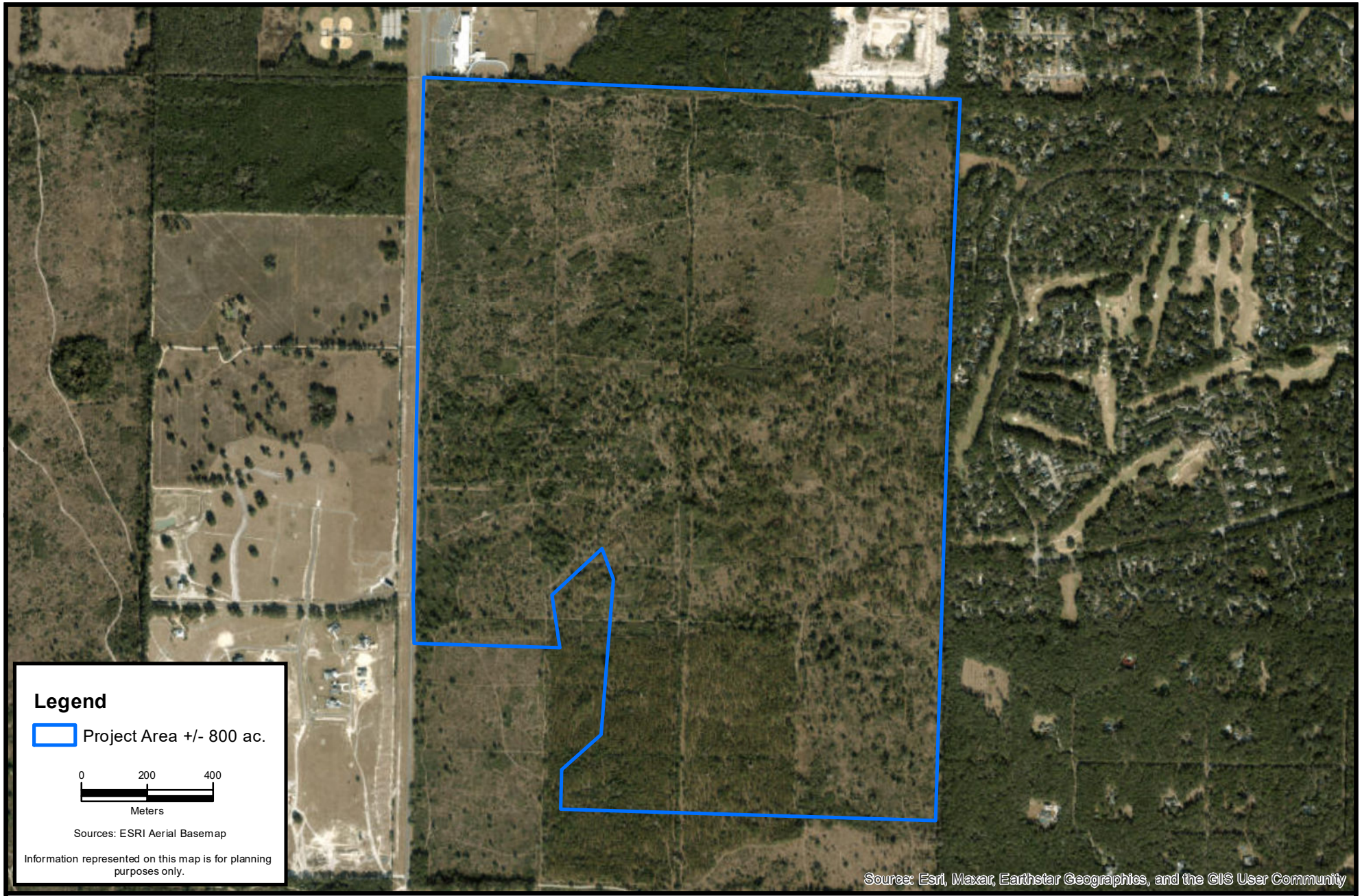
Topographic Location Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: Jun 26 2024

Figure: 1



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Aerial Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: Jun 26 2024

Figure: 2

Alachua County Prehistory

Alachua County is located within Florida's North Central region defined by Milanich (1994). Although archaeology across the county has been limited, indigenous groups spanning the early Weeden Island through Modern periods have been documented within the area's archeological record.

Present-day Florida's earliest occupation occurred during the Paleoindian period, which began some 15,000 years ago. The Florida climate during this period was cooler and drier than today, and freshwater was more difficult to find due to lower sea levels. As a result of the drier climate, many archaeologists believe that these early Floridians relied, in part, on waterholes, sinkholes, and lakes for drinkable water and, along with coastal areas, subsistence and other resources. Similarly, the distribution of recorded Paleoindian sites in Florida suggests that the presence of high-grade chert or limestone outcroppings, which were necessary for tool production, including Suwannee and Simpson projectile points, influenced migration and settlement patterns.

Recent research on Paleoindian sites, such as the Harney Flats site, located in Hillsborough County, has changed the thinking on early prehistoric peoples in Florida and the Southeast (Dunbar 2012; Halligan 2012; Webb 2006). Paleoindian settlement is believed to have been more specialized and sedentary than once thought, particularly in how Pleistocene megafauna such as mastodons were hunted and processed. Data recovered from excavations at Harney Flats site suggests that Paleoindian groups seasonally inhabited areas near freshwater and also demonstrates the need for the continued identification and investigation of terrestrial Paleoindian sites in Florida (Daniel and Wisenbaker 1987).

Climatic changes in Florida during the end of the Pleistocene period correspond with distinct cultural changes that mark the beginning of the Archaic period (7,500 to 1000 B.C.). A warmer climate and wetter conditions due to higher sea levels allowed for a wide variety of new food resources and shifts in settlement patterns and site types. As mesic oak-hickory forests emerged on the landscape and the megafauna of the preceding Pleistocene gradually became extinct, Florida's occupants during this time heavily relied on a diverse variety of small game, fish wild nuts and plants, and freshwater snails for subsistence (Milanich and Fairbanks 1980).

Changes in subsistence also coincided with changes in tool production, as the stone tools once used for hunting and processing megafauna and large game were no longer required. The most common artifacts of the Archaic consist of large, stemmed spear point types that include several variations (Hillsborough, Newnan, Alachua, Putnam, and Marion types). Unlike the highly specialized tools of the Paleoindian period, Archaic stone tools appear to have been used for a variety of purposes and discarded more frequently. Populations also became increasingly more sedentary during this time, resulting in a variety of new site types emerging, such as base camps, short-term camps, procurement camps, and cemeteries. During the Late Archaic, indigenous groups also began making the earliest pottery. These crude fiber-tempered ceramics, known as Orange wares, were

constructed using slab techniques and include incised, punctated, and simple stamped designs.

The Deptford cultural tradition is primarily associated by a shift in ceramic technology as sand- or grit-tempered pottery created using coil construction gradually replaced fiber-tempered Orange wares. During this transitional period, which extended from 1,000 to 500 B.C., coastal regions became more heavily populated, while interior locations served primarily for short-term use. By 500 B.C., two primary cultural traditions dominated the region: Deptford and St. Johns.

The Deptford tradition (500 B.C. to A.D. 200), which is not well represented in North Central Florida, is primarily a coastal tradition. Subsistence practices focused most heavily on marine and coastal resources. Deptford groups relied on wild game and plants to supplement their diets. Ceramics include grit- and sand-tempered pottery with paddle-stamped designs.

Similarly, the St. Johns tradition (500 B.C. to 1565 A.D.) is also primarily concentration within coastal regions. The heaviest concentrations of St. Johns sites have been recorded in North Florida and North, North Central Florida along the St. Johns River and its tributaries. Like the Deptford groups, St. Johns populations heavily exploited coastal and marine resources, especially oysters and fish. St. Johns ceramics are distinct in the presence of a chalky paste containing sponge spicules. Pottery decoration includes check-stamped, incised, and some red filmed.

Beginning circa 200 A.D., two new cultural traditions emerged in the region: Cades Pond and Weeden Island. Weeden Island sites, which include village sites with associated burial mounds and mound complexes, are generally found along the bays, the Gulf of Mexico, and along inland rivers or streams. Weeden Island ceramics are sand-tempered and include a variety of decorations and surface treatments including burnished, punctated, incised, red-filmed, and stamped (Willey 1949).

The Cades Pond dominated North Central Florida during this time. Cades Pond populations are noteworthy for their harvest economy in which marsh and aquatic environments were heavily exploited. Cades Pond pottery consists primarily of plain, undecorated ceramics. Weeden Island and St. Johns types are often recovered from Cades Pond sites. Site types include ceremonial complexes with ponds, earthworks, villages, and mounds and villages with or without mounds (Hemmings 1978).

The period between AD 800 to 1700 is associated with the Alachua tradition, which is subdivided into four subperiods: Hickory Pond, Alachua, Potano I, and Potano II. The peoples associated with Hickory Pond are believed to have migrated into the area from southeastern Georgia after A.D. 600. Hickory Pond groups relied on extensive horticulture, and sites are primarily positioned along high grounds with well-drained soils and nearby freshwater sources. Hickory Pond ceramics are sand-tempered. Decorations include punctations, cord marking, and net impressing. The most prevalent types are Alachua Net Impressed, Prairie Cord Marked, and Lochloosa Punctated.

Regional Cultural Prehistory

Prehistoric people have inhabited Florida for at least 15,000 years. The earliest stages are pan-Florida in extent while later cultures exhibited differing cultural traits in the various archaeological areas of the state. Milanich and Fairbanks (1980) and Milanich (1994) have synthesized the earlier work of John Goggin (1952) and others in east Florida in their model of cultural prehistory in Northeast and North Central Florida, of which Alachua County is part. Their chronology, as modified by recent archaeological research, will be followed in a brief overview of the prehistoric development in this region, which includes the project area. This cultural sequence provides a framework for the understanding and evaluation of archaeological sites in the project area.

The Hickory Sink development property is located in the Northeast and North Central archaeological region of Florida as defined by Milanich and Fairbanks (1980:22) and Milanich (1994). This region extends from the St. Marys River to the north and south to the vicinity of Vero Beach on the Atlantic Coast and includes the St. Johns River drainage and most of the eastern coastal lagoon regions. The Central regions include the central highlands of Florida including the Gainesville and Ocala areas.

PaleoIndian Period

The first discoverers of the New World were the Siberians of East Asia. More than 20,000 years ago, possibly as early as 40,000 years ago, prehistoric hunters crossed into North America from Asia over the Bering Strait land bridge, a continental link created by shrunken seas during the Ice Age.

Following food supplies, mainly roaming herds of large mammals such as mastodons and mammoths, the Asians migrated throughout the Americas, eventually finding their way into Florida some 15,000 years ago. Many archaeologists believe that these early Floridians, called PaleoIndians, relied, in part, on the coastal regions for food and other resources. If so, the areas they once inhabited are now under water because ancient coastlines were miles beyond where they are today due to the lower sea levels of the time. If they have survived the destructive nature of rising sea levels, these archaeological sites will be found offshore, possibly along relic river channels, the past freshwater environs where indigenous people tended to concentrate. This phenomenon may explain why archaeologists have such a difficult time finding evidence of early humans in Florida, especially along the coasts.

Recent research on Paleoindian sites in and along the Aucilla River in northwest Florida, particularly the Page-Ladson site, has changed the thinking on early prehistoric peoples in Florida and the Southeast (Dunbar 2012; Halligan 2012; Webb 2006). Based on these archaeological investigations and the data produced, it is generally believed that Paleoindian settlement was more specialized and sedentary than once thought, particularly in how Pleistocene megafauna such as mastodons were hunted and processed. The lithic tool assemblage associated with these early prehistoric activities is sophisticated and specialized.

While it is likely that they inhabited the area, PaleoIndian artifacts are infrequently found in Clay County and its surrounding areas. Most have been recovered from the St. Johns River by divers who often find them in association with the fossil remains of early mammals such as elephants and bison, which were hunted by the PaleoIndians. These associated remains seem to indicate that Florida's earliest residents were taking and later butchering animals at river fords where the large creatures were temporarily incapacitated as they waded across the water. Archaeologists refer to these locations as "kill sites."

The Florida environment during PaleoIndian times was much different than today. The climate was cooler and drier, and freshwater was more difficult to find due to lower sea levels. Forests of hardwoods, mostly oak and hickory, grew alongside of open prairies. Here, PaleoIndians coexisted with and hunted an unusual variety of Pleistocene mammals which once lived in Florida such as giant ground sloths, horse, bison, llamas, giant armadillos, huge tortoises, peccaries and several types of elephants. They hunted many species of smaller animals, as well. Subsistence was of primary concern to these early people whose lifestyles were largely dictated by the migratory patterns and movements of game. The principal PaleoIndian diet was supplemented by wild plants, nuts, berries and food resources from the coasts.

PaleoIndians used specialized stone tools, the most characteristic of which are slightly waisted spear tips known as Suwannee and Simpson projectile points. Hundreds of these points have been found throughout Florida in rivers, suggesting that they were lost during game ambushes at river crossings.

The Archaic Period

About 6,000 B.C., the Earth's climate changed and a warming trend caused glaciers to melt and release a tremendous amount of water into the ocean. Consequently, sea levels began to rise dramatically, changing the shape of the coastlines of Florida. The warmer temperatures and abundance of water caused a change in the environment and extensive hardwood forests gave way to pines and oaks, and swamp forests emerged. This was the end of the last great Ice Age.

It was during this period that the large mammals that once characterized Pleistocene Florida disappeared. In a new landscape that looked very similar to what Clay County does today, lessor mammals flourished. The new environment produced a variety of new food sources which prehistoric people adapted to with a new technology. These events marked the beginning of the Florida Archaic period.

About 6,000 years ago, Archaic period hunters and gatherers began to expand out of the central highlands of Florida around Ocala and Gainesville and move into areas along the St. Johns River where they discovered an abundant supply of fish, game, and freshwater shellfish, mainly snail and mussel. By 4,000 B.C., prehistoric peoples were well established along the river, living there year-round rather than seasonally. For the first time, people became more sedentary in lifestyle, settling in one area. A stable supply of

food found in the river environs attracted and supported more people and eventually large villages and ceremonial centers began to emerge. These Archaic populations are known archaeologically as the Mount Taylor culture, named after the Mount Taylor site, a freshwater shell mound on the St. Johns River.

Perhaps the most significant of these sites is the archaeologically acclaimed Tick Island site on the St. Johns River to the south. Evidence from this site suggests a large and complex society once lived there, which practiced organized ceremonialism. Some of the earliest pottery in North America has been recovered from Tick Island along with a spectacular array of artifacts. Unfortunately, most of these were salvaged as the shell mound was being mined for road fill in the 1960s. Radiocarbon dates associated with human burial remains recovered from the site prior to its destruction indicate that Tick Island was well established by 4,000 B.C.

The Orange Period

The Archaic tradition, or the way Archaic peoples lived, continued for some time. The practice of hunting, gathering of food, and fishing, including the taking of shellfish, provided the food resources for prehistoric peoples to subsist in many areas of Northeast Florida.

Around 4,000 years ago or about 2,000 B.C., the technology of pottery making was acquired by the Archaic people of Northeast Florida. The earliest forms of pottery were made from locally gathered clays mixed with plant fibers. When fired, the bodies of these ceramic vessels became orange in color. This recognizable pottery type, evidenced by its color and the presence of fiber impressions throughout, is used by archaeologists to identify the Orange or Late Archaic cultural period in Clay County, a continuation of the Archaic lifestyle with the advantage of pottery vessels. Orange period sites along the St. Johns River have produced the oldest dates for pottery in North America. The earliest pottery vessel forms are rectangular-shaped and were probably modeled after baskets.

It is generally believed that it was during the Orange period that prehistoric peoples were attracted to the coasts of Northeast Florida by a new food source created by a changing environment. An abundance of shellfish, produced by developing estuaries, caused inhabitants of the St. Johns River basin to migrate to the coastal regions of and develop a new but similar means of subsistence. The settlement model for this period theorizes that the coastal resources supplemented the freshwater river lifestyle rather than replace it entirely. For some time, it has been believed that prehistoric groups of this time made seasonal rounds to and from the coasts from their permanent villages along the St. Johns River. These seasonal migrations are suggested to have taken place during the winter months when foods other than marine shellfish were scarce or not available.

However, evidence from Northeastern Florida indicates that Late Archaic peoples were living along the coasts year-round rather than at certain times of the year (Russo & Ste.Claire 1991; Ste.Claire 1990). Archaeological research conducted in Nassau, Duval, St. Johns, Flagler and Volusia Counties, revealed that Orange period people were

collecting and eating a variety of coastal resources throughout the year. Many of the sites researched are coquina middens, formed by the discarded remains of beach clams that were gathered from the seashore rather than estuaries. These tiny clams were collected in mass and cooked and eaten as a broth. Orange fiber-tempered pottery recovered from Late Archaic period coastal sites indicates that prehistoric peoples were using these areas about 4,000 years ago.

It is likely that Archaic period peoples were living in the coastal regions prior to the Orange period. Investigations at the Strickland Mount complex in Tomoka State Park in Volusia County have revealed extensive coquina middens that contain no pottery. These shell middens along with an early mounded burial may suggest that prehistoric groups had settled the east coast long before what is currently accepted. Rather than making seasonal rounds to and from the St. Johns River and the coast, it is likely that prehistoric people in Northeast Florida, beginning with the Mount Taylor period, settled the two regions simultaneously, finding in both environments the resources necessary to support themselves year-round. Small Archaic period sites along the upper reaches of interior drainages may be short-term hunting or collecting stations, which were used by small groups who traveled from their permanent villages on the coast or river to gather food over a period of several days. These activities would allow people to maintain permanent residences in either location, with shellfish and fish providing the primary means of food, while gathering resources from surrounding areas.

The St. Johns Period

The end of the Orange period is characterized by changes in pottery types resulting from different tempering agents, including sand, which were used along with or in place of fiber. By 500 B.C., Orange pottery was replaced by a chalky ware known as St. Johns. The introduction of this ceramic type marks the beginning of the St. Johns cultural period, a way of life that spans two millennia, lasting until the arrival of European explorers around 1500. While much larger in number, prehistoric populations of this period practiced the same pattern of living developed by Archaic peoples centuries before, including shellfish harvesting, hunting, fishing, and plant collecting. It was also during this period that domesticated plants, mainly corn and squash, were used for the first time.

The St. Johns people occupied two major regions of Northeast Florida: the St. Johns River basin to the west and the environmentally rich estuaries of the Intracoastal waterways of the east coast. Abundant resources in both areas allowed prehistoric populations to grow and expand throughout these regions of the county, establishing permanent villages and ceremonial and political centers at locations where food was most plentiful. Both the river and coastal regions are marked by enormous shell mounds, the remains of prehistoric foods – snail and mussel in the freshwater environs and oyster, clam and coquina on the coasts, all of which served as the staple for the St. Johns diet for centuries. In particular, it was the shell mounds of the east coast such as Turtle Mound in Canaveral National Seashore Park and Green Mound in Ponce Inlet that grew to colossal

proportions. These coastal shell heaps represent the largest shell middens in North America.

Because of an abundance of fish and shellfish in the estuarine regions of coastal Northeast Florida, St. Johns people lived in many areas along the Intracoastal waterways other than the densely populated areas of river basins, this evidenced by the numerous shell middens and burial mounds known for the Intracoastal area in Duval, St. Johns, Flagler and Volusia Counties.

St. Johns period sites abound along the St. Johns River to the east, as well, indicating that prehistoric activity in the river basin during this cultural period was extensive. Here, enormous shell mounds and sprawling middens are composed of freshwater snail instead of oyster. The largest of these, Tick Island, was a focal point for St. Johns people as well as Archaic hunters and gatherers. Tick Island and other large sites likely were areas where St. Johns populations concentrated and consequently developed political and ceremonial systems to organize their complex societies.

Less is known about the inland occupations of St. Johns people, those that occur between river and coast. It is clear, however, that these areas were being used during the St. Johns period, this evidenced by interior sites. Freshwater snail and coquina middens found along inland lakes, ponds, swamps and other drainages suggest that some St. Johns people were well adapted to these areas, living selectively, seasonally or year-round within the interior portions of the region.

The late St. Johns period peoples were known historically as the Timucuan Indians in Clay County and in Northeast Florida, a name that was given to them by the early European explorers. The ethnographic works of the French artist Jacques le Moyne in 1564 and other early descriptions provide archaeologists and historians with invaluable information regarding the lifestyles of the Timucua and their prehistoric ancestors. These early documentations, coupled with archaeological information, give us a relatively accurate profile of native life.

We know from this information that in addition to collecting shellfish from local waters for food, native Floridians also hunted, with bows and arrows and spears, deer and many other animals – even alligators, and fished, and trapped turtles and birds. Plants, roots, nuts, mainly acorns and hickory nuts, and berries were also gathered for food. A popular method of cooking foods involved the stewing and boiling of meats and plants in various combinations in a large pottery "kettle." Fish and animals were barbecued whole and preserved on smoke racks made of wood and crop harvests were stored in corncribs. Later, some native groups learned to grow corn, beans, squash, pumpkins, and other domesticated plants, a renewable source of food that ensured a stable diet. It is thought by some archaeologists that in the spring some of these groups would abandon their large coastal villages, divide into smaller farming groups, and grow crops in the fertile grounds of the St. Johns River Valley and around the interior lakes of Central Florida.

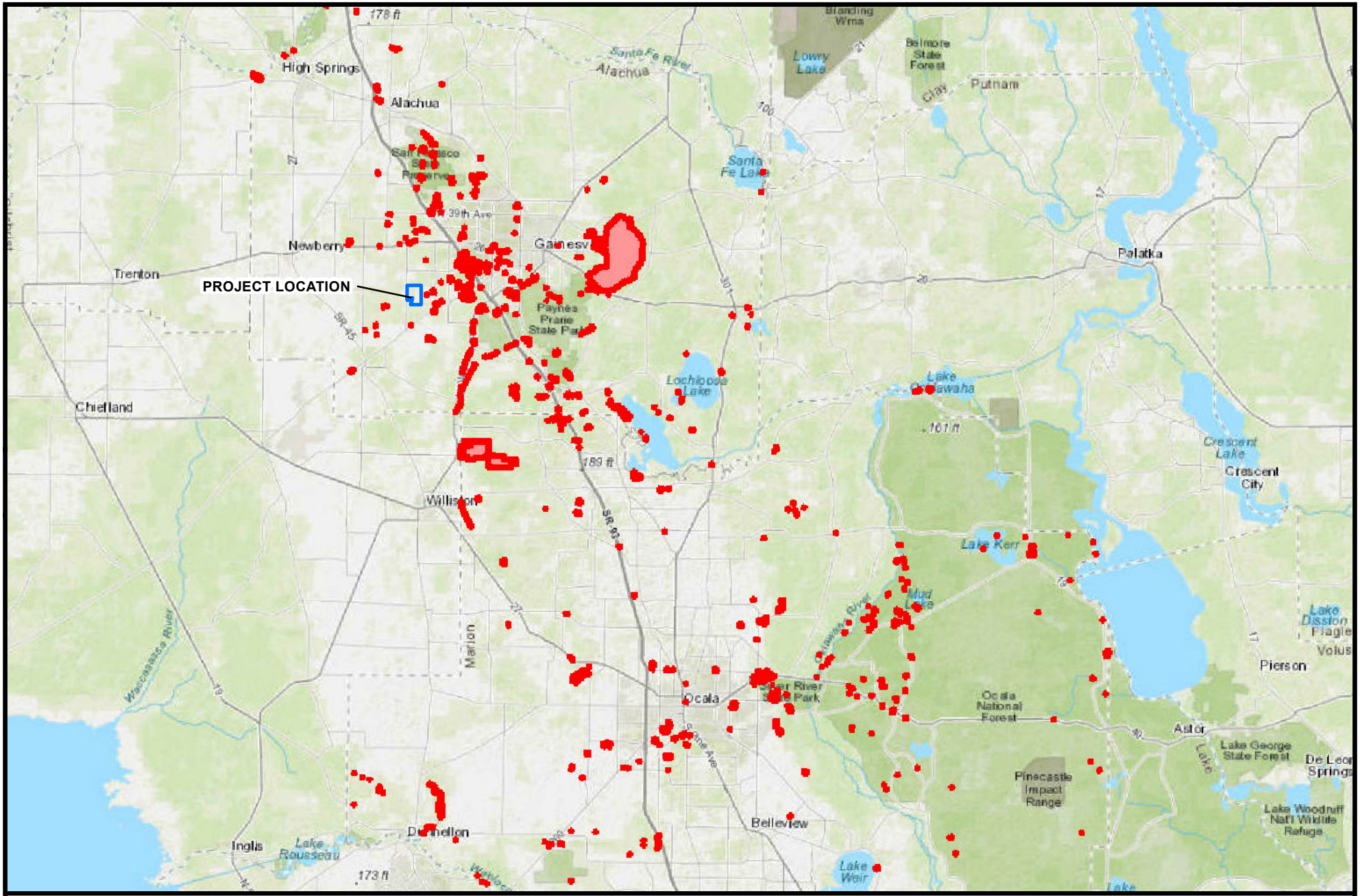
Some Timucuan villages were fortified by a palisade line or a wall made of sharpened, upright timbers. A village often had a large community house in its center where ceremonies, religious activities, and political gatherings took place (Worth 1998). This central structure was where the chief presided, as well. Surrounding the community center were smaller huts that housed families. These houses were circular and dome-shaped in form with palmetto-thatched walls and roofs. Inside, wooden benches were used for sitting and sleeping. While the Timucuan attire was brief, sometimes consisting of strands of Spanish moss, their practice of body ornamentation and use of jewelry made for some richly decorated natives. Chiefs and other important members of the community were often tattooed from head to foot, a symbol of authority. Men wore their hair up in a "top knot" usually with feathers or stuffed animals adorning their heads. Dyed fish-bladder ear plugs and long shell and bone pins were worn by both men and women. Jewelry, finely crafted and colorful, was made of shell, pearls, bone, wood, stone, and metal.

Accustomed to life near the water, prehistoric people used dugout wooden canoes for transportation and hunting in the extensive waterways of the Intracoastal and the St. Johns River. The dugouts were made by felling a tree, usually a pine or cypress, and hollowing out the body by burning and scraping away the interior wood. Many of these wooden vessels have been recovered from the bottom of lakes and rivers throughout the county area.

Archaic Period Lithic Resource Sites in Alachua and Marion Counties

The Tara Phoenicia sites occupy a prominent position in a geologic landform known as the Ocala Uplift, a region characterized by extensive chert outcrops that were utilized by prehistoric Native Americans for thousands of years, particularly by Archaic period people (see Figure 3, Archaic site distribution map in Alachua and Marion Counties). Because of this occurrence, an overview of Archaic settlement and lithic resource extraction patterns in the Central Highlands region is important in understanding Tara Phoenicia in a broader cultural context and settlement model. The Archaic period in Florida is defined by lithic technologies and cultural practices that correspond with human adaptation to warmer, wetter environmental and climatic conditions of the Holocene. These conditions over many generations resulted in increasing population and changes visible in the archaeological record after 8,000 BC (Milanich 1994: 62-63). The changing environmental conditions during the early Archaic periods resulted in increased surface water flow and erosion as temperatures and sea levels rose, exposing new lithic sources. A notable increase in reliance of these local, coarse-grained raw materials can be seen archaeologically. The previously available fine-grained lithic sources utilized during the Paleoindian period may have been inundated by rising sea levels or exhausted by over-exploitation. In consequence, new lithic technologies were practiced by exploiting and manipulating the available coarser-grained lithic resources (Goodyear 1979:10; Ste. Claire 1987:206). This study focuses on the type sites in Alachua and Marion counties associated with the Archaic period.

Around 7,500 B.C., the lanceolate points that define the Paleoindian points and knives were no longer made and instead replaced by a variety of stemmed tools such as Kirk, Wacissa, Hamilton, and Arredondo types (Bullen 1975; Milanich 1994: 63). Additionally, the changing environment also led to the extinction of some of the larger Pleistocene animal species, resulting in the reliance of smaller game and new ecosystems. These changes correspond with the smaller size points and knives produced to adapt to the changing environment. Early Archaic people had access to more fresh water in areas that were previously cold and dry and not suitable for Paleoindian hunters. This allowed early Archaic people to hunt and collect in new site locations based around these new-found resources which transformed from a nomadic Paleoindian subsistence pattern into growing, more sedentary lifestyles along coastal and riverine environments observed during the later Middle Archaic Period (Milanich 1994: 63-64). Studies discerning Early Archaic Bolen spatial and temporal distribution in north central Florida have also been conducted examining the transition from lanceolate-shaped points from the Late Paleoindian period to notched points from the Early Archaic (Thulman 2018: 257, 273). Their interpretations suggested the variation in Bolen hafts is likely made by distinct social groups carrying on point-making traditions, since basal measurements did not reflect functional differences due to environment or resource availability and point types were not evenly distributed in regions (Thulman 2018: 273). Other sites with Paleoindian and Early Archaic components are the Newnan site (8AL356), Payne's Town (8AL366), San Felasco Hammock (8AL461), Rainbow Springs 3 (8MR208), and the Oak Hammock Site (8MR1920) (FMSF).



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Archaic Period Lithic Resource Sites Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: Jun 26 2024

Figure: 3

Archaeological evidence for these settlement changes exists from the Early Archaic material found with Paleoindian material from other sites such as Page/Ladson, Little Salt Springs, and Warm Mineral Springs (Milanich 1994:64). Archaic sites also appear more distributed on land while Paleoindian sites are usually inundated with water. Both Paleoindian and Early Archaic peoples established camps around water sources, but the new climatic conditions and fresh water allowed people to sustain larger populations, occupy sites for longer, and perform certain functions at specific locations. Archaeologically this can be noted by the increase in sites, locations, larger population size, a greater range of tools, and sites with significant number of burials compared to the previous period (Milanich 1994: 67,70). The areas around northern Florida, such as Payne's Prairie and Orange Lake in Alachua and Marion counties provided perched water sources that today yield large quantities of Early Archaic points on the surface, while Paleoindian artifacts are few if not present at all. This pattern was largely documented from collections in Alachua and Marion counties that furthered Archaic period studies throughout the rest of northern Florida (Milanich 1994: 63-64).

The early Archaic period was dryer than present, but by about 3,000 B.C. environmental and climatic conditions became progressively more like the present (Milanich 1994:75). During this era, Middle Archaic sites are found in a variety of locations such as the freshwater shell middens on the St. Johns River and the Atlantic lagoon, the marine shell middens along the Hillsborough River drainage, and the forest of the interior of northern Florida (Milanich 1994:76). Around 5,000 years ago, two basic patterns appear to have developed in peninsular Florida. One pattern emphasizes subsistence on hunting in the upland areas such as the central highlands while the other focuses on fishing and collecting mollusks in lowland aquatic zones such as the St. Johns valley (Goggin 1949; Hemmings and Kohler 1974:45). Lowland sites contain numerous refuse heaps and shell middens that preserved evidence of food remains such as fish, shellfish, mammals both large and small, birds, reptiles and wild plants. In contrast, the uplands consist largely of scattered lithic sites or concentrations of stone tools and toolmaking debris, with little else preserved in the sandy upland soils. The knowledge of the relationship between these site patterns is continually growing as more archaeological research is conducted. The orientation of sites around aquatic areas, and the discovery of Archaic canoes in the area suggest an importance of water travel (Hemmings and Kohler 1974:45; Wheeler et al. 2003). Mounting evidence indicates Archaic groups moved between the uplands and lowlands to take advantage of specific resources.

Small special-use Middle Archaic sites are frequent in the central highlands and appear as lithic scatters. The evidence of the process of extracting lithic material such as chert can be found at quarry sites. Quarry sites are evident by the types of lithic debitage, or waste flakes, left behind when chert is mined and roughly shaped before being transported to another location to be worked into tools (Milanich 1994:78). Special-use camp sites are characterized by lithic debitage and tools such as points, knives, scrapers, and a few larger chopping or hammering tools. Floral and faunal remains are rarely found preserved at these sites because of unfavorable soil conditions. These small, camp-size sites were probably used for hunting and collecting on a seasonal basis (Milanich 1994: 78). Larger sites are less common but likely represent central-base settlements occupied by larger

groups of people. These sites may cover a large area and contain tens of thousands of chert flakes and tools. The large quantities of lithic flakes and tools found at larger sites contrast sharply with the small quantities at special-use sites (Milanich 1994: 78).

One of the larger, most well-known pre-pottery Archaic type sites, The Newnan site (8AL356) lay east of Gainesville on the high ground separating Newnan's Lake from Payne's Prairie (Milanich 1994: 79). Clausen (1964:8-12) reported the site consisted of a Middle Archaic artifact assemblage of Florida Archaic stemmed, broad-blade lithic projectile points including the Newnan point which is the most distinctive and widespread (Bullen 1975:31; Milanich 1994:76; Wheeler et al 2003:534). The 8AL356 artifact assemblage contained 186 Middle Archaic stemmed projectile points, 95% of these are Newnan points (Clausen 1964; Milanich 1994:80). Other tools include ovate blanks that were probably brought from quarry sites to make points, bifacial knives with rounded or squared bases, sandstone hones, hammerstones, and cruciform drills. The high quantity of flakes, cores, blades, and utilized blades are associated with the well-developed blade industry that makes the 8AL356 site unique considering only a small portion of the site was excavated (Milanich 1994:80). Evidence of thermal alteration, or heat-treated lithics also appeared in 94% of the Newnan projectile points from the type site (Ste. Claire 1987: 206).

Thermal alteration is the slow heating and cooling of the lithic raw material to facilitate flaking to strengthen the coarse-grained lithic material which may cause the product to change colors such as red, become glassy or lustrous, and easier to work (Dickinson and Wayne 2012:27-30; Milanich 1994:76; Purdy 1971; Rick and Chappell 1983; Ste. Claire 1987). Purdy (1971) believed thermal alteration began in the Early Archaic period and continued through the remaining prehistoric periods, but further research by Ste. Claire (1987) confirms practice began in the Early archaic, peaked in the Middle Archaic, and declined during the Transitional Period. Considering the reuse and salvage of lithics by later generations, Ste. Claire also speculated that even though there was a slight increase of thermal alteration after the Transitional period, overall the practice gradually decreased through time. Thus, site 8AL00356 and other sites with large quantities of thermally altered materials may indicate a Middle Archaic occupation (Dickinson and Wayne 2012: 27-30; Ste. Claire 1987)

Other point types associated with the Middle Archaic in the area are the Hillsborough, Putnam, Levy, Marion, and Alachua types (Bullen 1975:32; Milanich 1994:76). Clausen (1964:20-21,38-39) noted the distribution of stemmed points and lithic artifacts and suggested there was a relationship between the pre-pottery culture of the Newnan's Lake area and the Mount Taylor culture to the east on the St. Johns River basin (Wheeler et al 2003:534). The relationship between these two areas continues into the subsequent Late Archaic Orange culture indicated by the presence of fiber temper pottery post 2000 B.C. (Milanich 1994: 88; Wheeler et al 2003:534).

On the north side of Lake Newnan, 55 canoes were discovered in 2000 during a drought. The Florida Bureau of Archaeological Research radiocarbon dated 41 of the specimens from The Lake Pithlachocco Canoe site (8AL4792) yielding date ranges from 2300 to

5000 B.P. (Wheeler et al. 2003: 533, 546). The results demonstrate canoes were part of the Archaic adaption to the interconnected aquatic environments. The craftmanship also implies the canoe making traditions during the Archaic period persisted into European contact. The continuity of this watercraft tradition is so persistent it is difficult to distinguish between earlier and later periods (Wheeler et al 2003:546, 548). As of 2003, 16 Archaic period sites were known in the vicinity of Newnan's Lake, most are southwest of the lake, including site 8AL356 (Wheeler et al. 2003: 534). Some sites lay directly on the lake shore, while others lay upland on hills overlooking the lake or other small ponds and marshes. At least six of these sites have Orange Plain and Orange Incised fiber tempered pottery, indicating Lake Newnan was occupied throughout the Middle and Late Archaic (Wheeler et al. 2003: 534).

The Lake Kanapaha site (8AL172) is also representative of the upland Archaic tradition and lay along the western shoreline of Lake Kanapaha in central Alachua County. The name of the Lake Kanapaha derives from the Timucua word for "palmetto leaves" and "house," referring to the thatched dwellings built by historic Indians from the Province of Potano, this area aligns with much of Alachua County (Hemmings and Kohler 1974:46-47; Simpson 1956:66-67). The site consists of buried concentrations of Archaic stone tools and debris as well as Woodland ceramics. Site 8AL172 and other similar sites in the vicinity contain evidence of quarrying chert and stone tool production. Quarrying chert activity occurs widespread in this region with little evidence of continual utilization and occupation of these sites. The local chert appears to have been used expediently in archaic and later occupation sites (Hemmings and Kohler 1974:45-6).

Hemmings and Kohler (1974) encountered three general zones; the top foot of the site contained the ceramic zone, interpreted as small intermittent camps along the shoreline dating to the Deptford period (500 B.C. to 200 A.D.); from Levy zone from 1 foot to 2.5 feet the Levy zone contained Florida Archaic Stemmed types such as Levy, as well as scrapers, bifaces, cores, planes, and other tools dating to the Late Archaic Period between 5000 and 2000 BC; and the Pre-Levy zone between 2.5 to 6.5 feet indicated evidence of knapping bifaces and cores of local chert (Dickinson and Wayne 2012:32; Hemmings and Kohler 1974). They interpreted the sites as special use camps, specific to restricted resources, marked by areas of compact occupation, and tool reduction inventories (Dickinson and Wayne 2012:33; Hemmings and Kohler 1974:62). They further conclude that the generalized late archaic tool kit reflects dependence on hunting and collecting, processing of animal and plants, work in wood, bone, antler, hides, plant fibers and other raw materials, and the preparation of stone tools associated with these activities.

Additional assessments of the Lake Kanapaha Site (8AL172) were performed by SouthArc, Inc., in 2001 and 2012. They confirmed the site is a large Archaic lithic quarry and workshop with little evidence of habitation (Dickinson and Wayne 2001:1-3). Their study classified flakes based on the degree of external cortex remaining and the flake form (Dickinson and Wayne 2001; 2012: 27,30). Three categories of cortex were defined: primary, more than 50% of dorsal surface covered by cortex, produced during blank preparation or early stages of core reduction; secondary, less than 50% of dorsal surface cortex covered, occurring during bifacial preform or blank production; and tertiary, flakes

with no cortex on the dorsal side which are often smaller, generated during the final stages of tool manufacture or maintenance (Dickinson and Wayne 2001; 2012: 30). They further defined flake types as complete, proximal, distal, medial, and unidentifiable. The cultural material consisted of shatter and flakes with no tool or utilized flakes present They thoroughly examined the debitage based on the degree of external cortex remaining and the flake form. Ideally, sites dominated by shatter, primary and secondary flakes, and few completed tools or preforms indicate the presence of a quarry or workshop. Sites with completed or partial tools, preforms, blanks, and an abundance of non-decortication, tertiary flakes suggest a final production area or a maintenance/campsite. Their research also examined evidence of thermal alteration, suggesting a Middle Archaic component. The 2001 study recorded 33% of the debitage was thermally altered and 80% suggest final stage tool production (Dickinson and Wayne 2001; 2012: 33-34). The 2012 artifact assemblage suggested the final stage of tool making or maintenance with 46% of the debitage being thermally altered and no tools or expediently utilized flakes present (Dickinson and Wayne 2012:33-34). Since comparatively few lithic tools displayed evidence of usage it is likely the site represents a lithic workshop rather than an occupation or campsite.

Another outcrop of chert quarried in central Florida is the Senator Edwards site (8MR00122), located in Marion County. Purdy (1975) interpreted the site as a chipped stone workshop occupied during the Archaic period. The site contained projectile points averaging 6-8 cm long with stemmed bases, Bolen points, and side-notched points, some beveled. Large number of broken projectile tips, broken unstemmed bases, broken stemmed bases, unifacial scrapers, bifacial scrapers, preforms, hammerstones, and large anvils were also present. Stemmed drills, common in Archaic Florida, are notably not present. Previous studies by Witthoft (1969:13) interpret drills as knives that have been sharpened over and over and show no rotary wear (Purdy 1975:182). Since no stemmed scrapers or drills were recovered, Purdy (1975) suggested it would not be necessary to use an implement so long since chert was readily available. The quantity of lithic debris and tools found at larger sites like Senator Edwards contrasts sharply with smaller special-use sites with smaller quantities (Milanich 1994: 78-79). Milanich implied that middle Archaic people performed the same types of activities at their villages and camps as their early Archaic ancestors, but as life became more sedentary central-base settlements such as 8MR00122 produced a variety of specialized tools in the process. Milanich also suggested the appearance of the easily transportable tools may imply woodworking connected with building more permanent houses (Milanich 1994: 78-79). Other large workshops sites that possibly functioned as central base settlements are the Johnson Lake site in Marion County and the Haufler site 8AL28 in Alachua County (Milanich 1994:79).

The Golden Hills Archaic Complex represents a series of lithic production sites west of the city of Ocala that date to the Middle to Late Archaic (circa 5000-1000 B.C.) (Austin 2006; Ste. Claire 1983). An archaeological survey by Willis (1983) in Golden Hills recorded a cluster of prehistoric sites, including the Golden Hills aboriginal 2 site (8MR507) a prehistoric chert quarry and the Golden Hills Aboriginal 5 site (8MR510) a lithic scatter suggesting a campsite (Austin 2006: 5-6). Additional excavations by Florida

Archaeological Services, Inc. (FAS) mitigated 8MR00507 and 8MR00510, concluding both sites were part of a single lithic tool production complex from the Middle Archaic (Austin 2006:6; Ste. Claire 1984). Their data indicates all lithic reduction stages, from early to late, were performed at the sites. Activity areas relating to various stages of reduction are spatially defined in clusters of associated stone debitage (Austin 2006; Ste. Claire 1983). Site 8MR00507 consisted of hammerstones, hammerstone frags, cores, anvils, stone blanks, and primary and secondary debitage located in distinct areas along the margins of a sink hole, suggesting early reduction activity areas. Site 8MR00510 contained Newnan, Levy, and Pinellas points as well as some ceramics, hammerstones, anvils, bifacial blanks, preforms, chert nodules, and waste flakes (Austin 2006: 17; Ste. Claire 1984). High percentages of thermally altered materials were also present at both sites. Ste. Claire (1983) suggested the Golden Hills complex may be associated with an extensive Middle Archaic occupation that lay underneath the Golden Hills Academy area less than 3 miles northeast. Substantial amounts of projectile points, finished tools, and used tools were recovered from the Academy site, but it is not known if this site functioned as the base camp component of the lithic production complex to the southeast (Austin 2006; Ste. Claire 1983).

Southeastern Archaeological Research, Inc. (SEARCH) excavated 8MR510 in 2006 and expanded the boundaries of the large site and reported artifacts distributed over several topographic highs located southwest of a large wetland (Austin 2006:17-19). Their excavations found areas of high artifact concentration separated by areas of moderate to low artifact concentrations of waste flakes made from the Ocala Limestone formation. The large number of medial-distal fragments combined with a high representation of non-orientable fragments suggested a mix of core-reduction and early state tool production with some mid-to-late-stage reduction activity. Interpretation of the site includes short-term habitation campsites, chert procurement, and stone tool workshops evident by high densities areas. Thermal Alteration was also practiced on 75% of the 1193 artifacts uncovered, supporting the site dates to the Middle to Late Archaic, even with the absence of temporally diagnostic artifacts (Austin 2006:17-19; Ste. Claire 1987). The research conducted by SEARCH duplicated the materials recovered and concurred on the interpretations by FAS (Austin 2006:19).

SEARCH also documented 4 other sites with significantly lower densities of material situated on ridges overlooking wetland features (Austin 2006: 19-22). Thermal alteration was present in over half of the assemblages at the Golden Hills Aboriginal #6 site (8MR511), Golden Ocala #2 site (8MR3261), and Golden Ocala #3 site (8MR3262). Each site has less than 13 waste flakes present. The FMSF lists the sites function as lithic scatters, but the debitage present from 8MR511 suggest tool production activity while 8MR3261 and 8MR3262 suggest late-stage tool production. The Golden Ocala #1 site (8MR3260) contained 38 waste flakes showing signs of quarrying activity, core reduction, and early-stage tool reduction. Compared to the other percentages of thermally altered material at the previously mentioned sites, 8MR3260 only had 8 heat treated flakes. SEARCH determined these four sites have limited research potential due to their small size and limited artifact content (Austin 2006: 19-22).

Northwest of Alachua another series of Middle (5000-3000 BC) to Late Archaic (3000-500 BC) sites were uncovered in 2022 by Advanced Archaeology, Inc. (Mankowski 2022a; 2022b; 2022c; 2022d). The Tara April Scatter site (8AL7452) consists of a sparse prehistoric chert scatter interpreted as a lithic reduction and tool manufacturing encampment (Mankowski 2022d:2, 25). The Tara Forest West Scatter site (8AL7436) is an extensive, but sparse prehistoric chert surface scatter dating to the Middle Archaic and Late Archaic. The site represents a limited-use lithic reduction and tool manufacturing encampment (Mankowski 2022c:25). The Tara Phoenicia site (8AL7459) consists of sparse to dense prehistoric chert and ceramic deposits and extensive scatters that represents a lithic reduction and tool manufacturing encampment (Mankowski 2022a; 2022b; 2022c:25). The Tara Forest Mound (8AL7466) was inaccurately interpreted as a constructed sand mound, with moderate to dense prehistoric chert and ceramic artifact deposits that represents a lithic reduction and tool manufacturing encampment (Mankowski 2022d:3,25). Specimen logs show that primary, secondary, and tertiary flakes are present, with evidence of thermal alteration in many of the assemblages (Mankowski 2022c). The current undertaking includes Phase II excavations and interpretations of The Tara Phoenicia site (8AL7459) and the Tara Forest Mound (8AL7466).

Other examples of Archaic sites that consist of variable to dense scatters representing tool manufacturing encampments include the Dudley Farm Quarry Site (8MR2545), 92-34 Ocala, Scrambletown A (8MR2104), Oak Hammock (8MR1920), White Ranch (8MR3538), Site # 3 (8AL2910), San Felasco Hammock (8AL461), and Paynes Town (8AL366). Diffuse scatters include the Inferno site (8MR2343), Coliseum (8MR2321), USFS OCA15-06/Scrambletown Angel (8MR3915), USFS 92-33, Ocala (8MR2103), Rainbow Springs 3 (8MR208), Rainbow Springs State Park (MR2397), Mare Haven, (8MR152), and Mill Creek site (8AL4821) (Boyer 2016; Boyer et al. 2022; FMSF).

Alachua County History

When the Spanish arrived in Florida during the seventeenth century, they identified the Alachua people as the *Potano*, a western Timucuan tribe. Several Spanish missions were established within and surrounding present-day Alachua County. Fox Pond (8AL272) is believed to be the location of one of the missions (Symes and Stephens 1965). The Spanish also established a cattle ranch near Paynes Prairie. By 1650, most of the indigenous population had been wiped out, largely due to the introduction of European diseases.

Creek Indians, encouraged by the Spanish, migrated into Florida during the 1715 Yamasee Indian War and became known as the Seminole. Seminole settlements were established within the vicinity of Paynes Prairie and heavily concentrated at Micanopy. The collapse of the Spanish ranch system resulted in feral cattle in the area, including near Paynes Prairie. The Seminole relied heavily on the available cattle and cultivated corn, beans, pumpkins, and potatoes.

In 1817, Don Fernando de Maza Arrendondo received a land grant from the Spanish government for 20 square miles within present-day southern and central Alachua County. Arrendondo, a merchant in Cuba, had previously supplied St. Augustine with financial assistance during the Patriot War (Pickard 1994). Arrendondo maintained the land until the 1820s, at which time the grant was divided and sold to several other individuals.

As settlers arrived in Florida from Georgia and the Carolinas in hopes of establishing cotton plantations, conflict arose among the Seminole and settlers resulting in the outbreak of the First Seminole War and the 1819 cessation of Florida to the United States. During the Second Seminole War (1835-1842), which began because of continued conflict, several forts such as Fort Clarke and military roads were constructed in the area. The war resulted in the transportation of the Seminole to Indian Territory in Oklahoma and migration further south into Florida (Milanich and Fairbanks 1980).

Following the end of the Second Seminole War, the population in present-day Alachua County and surrounding areas grew substantially as more settlers arrived. Alachua County was established in 1824. Newnansville served as the county seat, although the county seat was shifted to Gainesville in 1853 (Hildreth and Cox 1981). Alachua County originally included the majority of North Central Florida, spanning from the Florida-Georgia border to Tampa.

Alachua county's population reached 8,000 in 1860. The county continued to grow through the next 25 years due to successes in the phosphate and citrus industries. Railroad expansions during the late nineteenth century and early twentieth century brought investors, tourists, and more population growth to the area. By the twentieth century, Alachua County's population had soared to 32,000. The economy shifted to emphasis on phosphates, cotton, and vegetable production. The establishment of the University of Florida in Gainesville in 1905 marked one of the most significant events in the county's history.

Regional Historical Background

First Spanish Period (1565-1763)

The native peoples of the North American continent were aware of the arrival of Europeans and Africans to their eastern shore at the start of the 16th century. Although *Juan Ponce de Leon*'s 1513 landing and naming of *La Florida* is the most enduring account of early discovery, it is widely accepted that he was preceded by others as evidenced by his own encounter with "an Indian who understood the Spaniards." During the first 50 years of European presence in Florida, Ponce de Leon and a succession of others appointed as *adelantado* (conqueror and spokesman for the king of Spain) documented the land, faced its people and attempted to settle Florida. The challenges proved daunting as these expeditions made fatal mistakes in calculating stores and supply routes, anticipating differences in climate, negotiating terms with native chiefs, and lusting after non-existent precious metals. In 1565, *Pedro Menendez de Aviles*, receiving royal favor for his decisive actions against the French corsairs, was awarded a charter by Philip II for the settlement of Florida. In addition to the same daunting tasks faced by his predecessors, Menendez had the added burden of an immediate threat from the French—they had established *Fort Caroline* at the mouth of the St Johns River the year prior. Setting sail with ten ships and more than a thousand men, Menendez within five years achieved remarkable results—the French were ousted from Florida, trans-ocean supply lines and trade routes were secured, the Jesuits were ministering to native converts at coastal missions from Charlotte Harbor to Chesapeake Bay, a network of agricultural *haciendas* were under development, and a permanent garrison named *St Augustine* had been established. Although this success was short-lived with his death in 1574, the course of Florida's history was mapped out for the next two centuries.

With the departure of the Jesuits from Florida in 1572 the Franciscan order soon stepped in to take over missionary work. Over the next century a network of missions and *doctorinas* (a Christianized Indian settlement with an itinerant priest) closer to Spanish military garrisons were developed with St. Augustine at its center. One axis of the network ran north along the waterways of the coast to *Santa Elena,* located on Parriss Island in South Carolina. The other axis ran along a *camino real,* often referred to as the "road to Apalachee", connecting with a mission named *San Luis* in present-day Tallahassee. To keep supply lines open for these remote locations four ferries were established by the Spanish at major river crossings—two on the Suwannee River and two on the St Johns River. One of the St Johns River ferries was located due west of St Augustine at the Indian village known as *Tocoi* on the east bank of the river. By 1616 the original occupants of the village had succumbed to pestilence. In the late 1620s the Spanish governor of Florida, *Luis de Rojas y Borja*, initiated an effort to establish a new mission on the site, *San Diego de Halaca*, repopulating the vicinity with a native people referred to as the *Acuera*. It was part of a larger missionization plan by the governor to develop the *Yustega* province on the Suwanee River, recognized for its fertile agricultural lands. The Spanish ferry landing on the western bank of the St Johns River was once located just northwest of the subject property. From there the camino real turned to the

southwest and it appears very likely that it was located on the subject property (see 1778 British survey map included in this report).

Increasing friction between the Spanish and British colonial superpowers at the end of the seventeenth century resulted in the fortifying of strategic positions in Spanish Florida such as the construction of the *Castillo de San Marco* in St Augustine during the years 1672-95. It is around this time that the Spanish constructed small fortifications at both St Johns ferry landings--*Fort Picolata* was constructed on the east bank and *San Francisco de Pupe* or "Fort Pupo" on the west bank. A small garrison of eight men outfitted with small artillery pieces was assigned to each outpost.

With the development of Georgia and the Carolinas by the British, raids into Florida by their Indian allies and later in combined forces began to take its toll on the outlying missions and doctorinas. From 1702 to 1706 attacks increased and the Spanish were forced to withdraw from the Appalachee and western Timucua provinces to the St Johns River. On occasion the soldiers were engaged by Creek and Yuchi Indians sent to prey on Spanish outposts. By 1738 the original wooden structures had deteriorated and were deemed too small to hold an adequate garrison hence the construction of larger structures at each site the following year. In 1740 the forts were captured and occupied by Georgian and Indian forces led by James Oglethorpe. On their withdrawal, later in the summer, they destroyed the forts. After Oglethorpe and his forces returned to Georgia, the Spanish governor ordered a census of agricultural lands in the interior provinces. Francisco de Castilla conducted the inventory remarking of brush-laden "old fields" and ruined haciendas along the camino real beyond Fort Pupo (Worth 1998). The Spanish or British never reestablished Fort Pupo (the remains of the fort were investigated archeologically by John Goggin in 1950-51). Fort Picolata was reestablished by the British during their occupation of Florida.

British Colonial Period (1763-1784)

The ongoing struggle between European nation-states to colonize the New World during the Age of Enlightenment included the Seven Years' War, referred to in the United States as the French and Indian War (1745-60). During the 18th century Britain had successfully usurped the infamous Spanish Armada for superiority over the world's oceans. Realizing its fallibility Spain formed an uneasy alliance with France to protect its colonial interests against the emerging naval dominance of the British. In a bold move the British attacked and seized Havana, Cuba--Spain's long-established base of operations in the Caribbean. The Spanish had no choice but to cede La Florida to the British during negotiations at the 1763 Treaty of Paris in order to recover their coveted capital. After a century of conflict Britain had successfully pushed Spain off the coast from the St. Marys River to the Mississippi adding East Florida and West Florida to their established colonies in the New World.

Although all loyal Spanish subjects including Christianized Indians except for three families, left Florida by 1764 (Schafer 2003) the peninsula was by no means uninhabited when the British arrived. Despite rampant disease and starvation; enslavement; armed

conflict between nations and tribes; and forced acculturation in general, several groups of indigenous peoples survived and retained cultural identities separate from the Europeans. In Georgia and the Carolinas the English named one such group of loosely allied Chiefdoms as the *Creeks*. In Florida the Spanish referred to natives who resisted conversion to Christianity and cultural assimilation as the “wild ones” or *Cimarrons*. The Creek words *ishiti semoli* meaning "separatist” or “renegade," was also in use. The name *Seminole* was first used in written language by British Indian Agent John Stuart in 1771. Euro-American history has traditionally treated these groups as distinct and separate from earlier tribes known to have populated the Florida’s northeast coast (e.g. Timucua, Mayaca, Jororo). Recent publications documenting oral and familial histories of Native Americans in Florida suggest that this may be an ethnocentric bias. These names and distinctions existed back then as a convenience for Europeans forging strategic alliances and today as a means for academic reflection. Instead, Native American culture appears to be substantially more varied with intricate multi-cultural alliances and inter-marriages than previously recognized (Weisman 1989).

The Spanish approach of assimilating native culture into their own was not the way of the British. Instead, they chose to “leave well enough alone” as established by the *Treaty of Picolata* in 1765--named after the fort on the St Johns River originally established by the Spanish just to the east of the subject property where the treaty was negotiated. The results of the Indian congress were that a strip of land 25 miles inland from the Atlantic shore ranging from St Marys to a point on the St Johns 60 miles south of Fort Picolata was reserved for British occupation and use. This coastal strand contained rich bottomlands and hammocks and were subsequently subdivided for British investors who were excited at the prospect that East Florida was similar in climate, soils and environment to the Carolina low country. The success of large coastal plantations in the Georgia and South Carolina colonies where cash crops such as indigo, cotton and rice were raised for export to the mother country had earned great wealth for many a nobleman.

But before the land grants were to be developed a better understanding of this mostly uncharted wilderness that Grant referred to as a “New World in a state of nature” was in order. The man selected by the king for a reconnaissance of the new territory was the well-traveled and respected man of science from Philadelphia - John Bartram. Appointed as “Royal Botanist” the sixty-six-year-old Bartram began his expedition from St. Augustine in the winter of 1765 accompanied by his son William. They traveled by a small sailing vessel up the St. Johns River documenting the depth and composition of soil strata along with the locations of rivers, creeks, savannahs, and oak and pine forests. The Board of Trade and Plantations in 1766 published his travel journal and corresponding map, which was widely read by British aristocrats and merchants and guided them in acquiring land grants in East Florida.

In November 1765 John and William Bartram attended the Indian congress at Fort Picolata observing treaty negotiations between British officials and leaders of the Creek and Seminole tribes. One month later the two were on their St Johns River expedition camping at Fort Picolata on December 23 and Palmetto Bluff the following night. After

the eight-week journey it appears William Bartram was inspired to try his hand at plantation life much to his father's dismay. Receiving a land grant in 1766 of 500 acres on Little Florence Cove just north of Fort Picolata, William with six slaves settled on the low-lying land. Family-friend Henry Laurens stopped for a visit in August of that year and was alarmed at the conditions he found. "His situation on the River is the least agreeable of all the places that I have seen"; his house a "hovel…extremely confined" on "a beggarly spot of land, scant of the bare necessaries"; water in the cove "exceedingly foul"; and Bartram himself sick with fever. Writing to his father the concerned friend bemoaned the "forlorn state of poor Billy Bartram". William left Florida by the end of the year and later stopped at Fort Picolata during his 1774 exploration of north Florida collecting source material for what became his celebrated book *Travels.* He noted that the fortification was "dismantled and deserted" but made no mention of his failed plantation.

Development of the East Florida colony proceeded in earnest. King George III appointed James Grant as governor of East Florida in 1764 selecting a man inspired to make the most of this new territory. Establishing his own plantation (today's Guana River State Park) north of the capital of St. Augustine, Grant experimented with a variety of crops to determine the best and highest yields from the rich hammock lands and marshes of Florida's coast. His efforts caught the attention of the London elite who, impressed with Grant's success especially with indigo, formed the *East Florida Society* as a clearinghouse for the latest news and information from the young colony. Land grants of 1,000 to 20,000 acres were made available to men of wealth and reputation. Planters with their enslaved Africans were sent to many of these grant holdings to begin the laborious process of clearing land, damming creeks and draining marshes to create agricultural fields for cultivation.

The second governor of British East Florida, Patrick Tonyn, took office in 1775 when Grant was called back into military service leading forces against the American revolutionaries. Tonyn himself established an indigo plantation on a 20,000-acre land grant just north of present-day Green Cove Springs known as the *Black Creek* estate. Tonyn's efforts proved a profitable venture, so five additional 20,000-acre tracts were created to the south of Black Creek along the west bank of the St. Johns River. Awarded to wealthy British speculators in hopes that they would invest in similar operations, no attempt was ever made to develop these tracts. It appears likely that the subject property under study for this report was contained within either the land grant of Charles Mills or that of John Deike. However, since the land was never cleared and improved for plantation development no historic resources relating to such occupation exist on the property. It appears likely that the British made use of the old Spanish road, documenting it as part of a survey conducted by Joseph Purcell in 1778 (see copy provided).

Second Spanish Period (1784-1821)

Spain retrieves their former holdings from Great Britain because of treaties signed in Paris after the American Revolution. The Spanish maintain the political subdivisions of East and West Florida with St Augustine and Pensacola as respective capitals--East

Florida retaining the same boundary established by the British. Unlike the earlier term of Spanish rule, the colony is occupied by a diversity of interests. Allegiance to the Spanish crown and the Catholic Church was required of residents, but not enforced. The population consisted of the Spanish military, a weakened priesthood, opportunist planters with wavering loyalties; runaway slaves empowered by looser ownership laws, and beleaguered natives under relentless attack from the north by the American military.

It was a time of unrest and difficulty. In 1794 a band of Georgians inspired by the principles of the American and French Revolutions took it upon themselves to free the residents of Florida repressed under Spain's tyranny. Expeditionary forces would provide the military support necessary for residents to claim independence from the Spanish crown, establish their own sovereignty and subsequently annex themselves into the new American republic. Hearing of the plot the Spanish Governor Juan Quesada ordered the evacuation of all settlements located between the St Marys and St Johns rivers including the burning of all standing buildings and harvest or destruction of all planted crops. During the War of 1812 Spain formed an alliance with Great Britain against Napoleon's global advances. As the United States prepared for another war with the British, southern slave owners seized the opportunity to justify retrieval of runaways who under Spanish law could own land and bear firearms. Referred to as the "Patriot War" in Florida incursions by armed Georgians and Carolinians swept deep into Florida again laying waste to newly rebuilt plantations and farmsteads along the St. Marys and St Johns rivers.

As early as 1689, African Slaves fled from the British American colonies to Spanish Florida seeking freedom. Under an edict from King Philip V of Spain the black fugitives received liberty in exchange for assisting in the defense of St. Augustine. Recognized by the Spanish as a militia, the armed freedmen were allowed to settle an area about a mile north of the Castillo de San Marco. The settlement known as Fort Mose was the first legally sanctioned free black town in North America. In an interesting turn of events, during the time of the American Revolution when East Florida became a safe-haven for British Loyalists, Africans were granted their freedom by the crown in exchange for bearing arms against the American insurgents. These soldiers became known as the Black Loyalists although the British also referred to a resident of these communities of runaway slaves as a maroon, derived from the same Spanish word, cimarron.

In 1811 Spanish Governor of East Florida, Juan Jose de Estrada appointed George J. F. Clarke, deputy surveyor of land grants, as Surveyor General when John Purcell left office and never returned. Neglect in conducting actual surveys in the field, lax record keeping and blatant disregard for rules adopted by the governor's office plagued his 10-year administration. Also, he ended up with extensive grant holdings throughout north Florida along with his family members and friends, many of which were challenged in American court in later years. One of Clarke's land grants is located south of the subject property in Clay County and may have been a tract of timber assigned to him for use in the saw mill he had established near Fernandina. Clarke's Creek is said to be named after him.

For whatever reason, he soon left St. Augustine for the confines of Fernandina, where the census of 1814 shows him with a wife and four sons. [Ibid. 212-13.] The famed Clarke

Mill Grant was located there and shows clearly on the official map of the town surveyed and drawn by George J. F. Clarke, in 1811-12. Clarke was instructed to make this map because of the unsanitary condition of the old town and its general unsightliness

American Plantation Period 1821-1860

As a result of the Adams-Onis Treaty of 1819, Spain relinquished Florida to the United States for $5 million and certain international legal claims. The actual change in government occurred in 1821 with the merging of the two Floridas into one governmental body. The capital was moved to Tallahassee - considered a halfway point between the two old capitals of Pensacola and St Augustine - with Andrew Jackson appointed as Territorial Governor.

During this period, Bellamy Road (which passes through Clay County), also billed as "the first American Road in Florida," was authorized by the 18th U. S. Congress to facilitate commerce and military maneuvers between Pensacola and St Augustine. The Act directed that the public works project roadway follow "as nearly as practicable…the old Spanish road to St. Augustine, crossing the St. John's river at Picolata; which road shall be plainly and distinctly marked and shall be of the width of twenty-five feet." Although the military was authorized to construct the road, the Territorial legislature contracted with John Bellamy, a well-respected planter from Jefferson County, to build it from the Ochlockonee River to St Augustine. Using his slaves and equipment the road was completed in 1826 at a cost of $13,500. Not everyone was satisfied with the work. One official commented that "the work is done in the slightest manner possible…that the road cannot possibly last a twelve month…stumps of the trees on the road are left standing to a great height…the causeways and bridges constructed on this road…are absolutely good for nothing." He goes on to say that "most of the way much too narrow, often not exceeding in width from 12 to 15 feet" instead of the 25 feet specified by Congress. In defending his position Mr. Bellamy responded: "It is true sir, the unparalleled wetness of the season, last year, prevented me from being able to tender the as soon as I supposed I should have been able to do. But I now conceive it completed although already one of my important bridges has within a few days' past been destroyed by fire from an Indian encampment." The route came to be known as The Bellamy Road and was in use for most of the 19th century. Most of its length was bypassed by later cross-state routes constructed in the 20th century. Some segments are still in use, even with the same name, as local streets in some communities. Other segments have long since been abandoned. The historical significance of the road has been identified by the local historical society in Clay County who has erected a historic marker at it junction with US 17.

Florida's Seminole Indian population was estimated at about 4,000 and was joined by what is estimated to have been at least 800 maroons. During the Territorial Period American plantation owners were claiming these blacks as runaway slaves. Fearing seizure by slave raiders, the Black Seminoles became staunch opponents of relocation efforts proffered by American interests. In tribal councils they stoked efforts to resist removal and threw their support behind the most militant Seminole faction led by

Osceola. After war broke out individual black leaders John Cesar, Abraham and John Horse played key roles in strategic efforts to elude and attack American forces. In addition to aiding the Indians in their fight Black Seminoles conspired in the rebellion of at least 385 plantation slaves at the start of the Second Seminole War. The slaves joined Indians and maroons in the destruction of over 20 sugar plantations from December 1835 through the summer of 1836. Some scholars have described this as the largest slave rebellion in American history. By 1838 U.S. General Thomas Sydney Jesup succeeded in separating the interests of the maroons and Seminoles by offering security and promises of freedom to the blacks. His act was the only emancipation of rebellious African Americans in the South prior to Lincoln's Emancipation Proclamation in 1863.

In one of the attempts to end the longest and costliest Indian War in U.S. history, the United States Congress passed the Armed Occupation Act of 1842. Under the Act 200,000 acres owned by the federal government south of Gainesville and Palatka was divided into 160-acre tracts (1/4 of a square mile) and made available for homesteading. Any able-bodied man (or woman for that matter since several received land grants in their own name) who could occupy the land for five years by cultivating at least five acres and erecting a habitable dwelling was guaranteed title to the property. Since the Indian threat remained, the government also offered homesteaders arms and ammunition along with the promise of military troop support if Indians were sighted in the vicinity. Those who were successful with the program had to demonstrate the where-with-all typical of the classic "pioneer spirit" more commonly associated with development of the American West later in the 19th century. Most frequently extended families, friends, and slaves clustered several homesteads together since promised supplies and troop support were often not delivered to the settlers' satisfaction. Many settlers were former soldiers who had scouted out prime locations during their service in the Seminole Wars—almost half of the applicants were from outside of Florida moving from North and South Carolina, Georgia and Alabama (Covington 1961).

After the threat of Indian attack was finally put to rest because of treaties negotiated at the end of the Third Seminole War (1850-53), development of the St Johns River basin began to quicken. Because the inlets of Florida's east coast south of Jacksonville were treacherous to navigate by oceangoing vessels, the north-flowing St. Johns soon became the water highway for peninsular Florida. By the 1850s steamboats were making scheduled stops at landings along the middle St Johns facilitating commerce and travel. Lands were cleared near these landings for plantations where cotton and oranges were cultivated. This part of Florida also caught the attention of travelers who began spreading the word of the exotic nature of this tropical setting in northern salons and publishing outlets. During this time the first snowbirds started to descend on Florida during the winter months—primarily outdoorsmen, writers, artists, and invalids. Recognizing the potential for an additional source of income, larger homes and hotels were constructed on the shores of the river as accommodations for travelers. Thus was the beginning of Central Florida's tourism trade growing over the next 150 years to become one of the premier travel destination on the face of the earth.

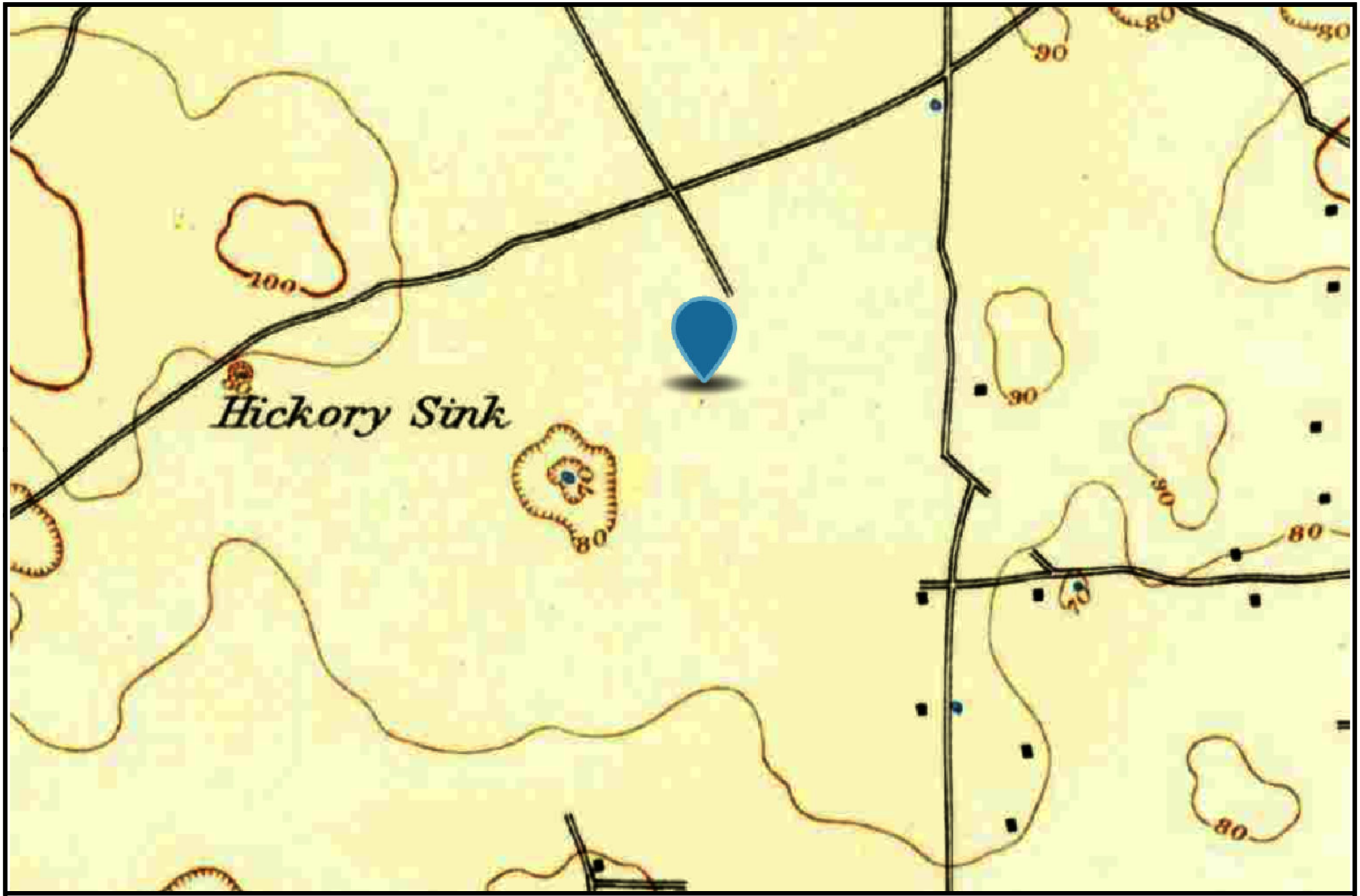
In 1845 Florida became the twenty-seventh state in the United States. William D. Moseley was elected the new state's first governor, and David Levy Yulee, one of Florida's leading proponents for statehood, became a U.S. Senator. By 1850 the population had grown to 87,445, including about 39,000 African American slaves and 1,000 free blacks.

A Brief History of Hickory Sink

Hickory Sink has been a landmark and placename at least as early as the late 19th century. An 1890 survey map of the area shows Hickory Sink as a prominent feature (Figure 4)

The Hickory Sink property, Kanapaha Ranch, has been in the Lee family for five generations. Family patriarch F. B. Childress purchased the land from prominent landowner and businessman Edward Cummer Roe in the mid-1950s. The site was once covered with large old growth Longleaf pine trees, ideal habitat for the Bobwhite quail, and has been used as a recreational quail hunting property for over one hundred years. In the early 20th century, the pines were tapped for the naval stores business. Turpentining was a major industry across Florida and the Southeastern US at that time. Since the 1960s, the property has been used for cattle ranching, with over 1,600 head of cattle grazing the land in the 1970s, when the cattle operation was at its peak. During the 1980s, many of the old pine trees were cut for timber and have since been replanted and harvested several times.

It is possible that the Second Seminole War Battle of Hickory Sink, a dispute between Seminoles and white settlers over cattle and reservation boundaries, took place on this property or close to it. Written accounts describe the site of the battle as having taken place near the Kanapaha Pond and adjacent to the settlement of Hogtown. Hogtown is one of the earliest settlements in Alachua County and known to have existed west of present-day Gainesville (Boyd 1951:55).



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1890 Survey Map Showing Hickory Sink

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: Jun 26 2024	Figure:	4

Previous Archaeological Investigations

A TRS search through the FMSF, Tallahassee (26 January 2024) revealed that five CRAS surveys have been conducted within a 1.0-mile radius of the subject property (Table 1). One of these surveys (MS# 5986), a historic structures survey of the unincorporated areas of Alachua County, took place within the Area of Potential Effect (APE).

Table 1. List of CRAS recorded to the FMSF within 1.0-mile radius of the subject property.

FMSF No.	Title	Author (s)	Date
11149	*A Phase 1 Cultural Resource Survey of the Oakmont Property, Alachua County, Florida*	Stokes	2005
8090	*Cultural Resource Survey: Proposed Cell Tower #J-202 Avalon Site; Alachua County, Florida*	Carlson	2001
5986	*Historic Structures Survey of Unincorporated Alachua County*	Anderson	2000
4118	*Cultural Resources Survey and Assessment Proposed Haile Plantation Addition, Alachua County, Florida*	Dickinson and Wayne	1994
258	*Gaines Plantation (Haile Plantation) DRI*	Purdy and Batcho	1978

Twenty-two historical and archaeological resources have been recorded in the vicinity of the subject parcel, including seventeen archaeological sites and five historic structures. Four archaeological sites (8AL2911-2914) have been recorded within the boundary of the APE.

The *Historic Structures Survey of Unincorporated Alachua County* (MS# 5986) was conducted by Quatrefoil/Anderson Consulting of Savannah, Georgia in 2000. Through this survey, five previously recorded and 962 new historic properties were recorded to the FMSF. Two of these historic structures (8AL3840, 3841) were located approximately 0.75-mile north of the APE. Both were Frame Vernacular-style residences dating to c.1930 and c.1940. No additional information was included in the report. Neither structure was considered individually eligible for NRHP listing at the time of survey, though they contribute to a potential resource district (Anderson 2000).

Directly north of the subject property, a Phase I CRAS was conducted of the 556.33-acre Oakmont property (MS# 11149) by Southeastern Archaeological Research, Inc. (SEARCH). Five archaeological sites and one historic structure (8AL4973-4976, 4978, 4979), as well as two archaeological occurrences, were recorded during the 2005 investigation. All but one of these cultural resources were detected in the vicinity of the subject parcel. Along the northeastern border of the APE is Oakmont 2 (8AL4974), a large-scale variable density lithic scatter and quarry (n=588) that lies adjacent to, and is possibly an extension of, the Hog Cave site (8AL2912), located in the northeast portion of the APE. This site is not considered NRHP eligible. Though the site contained a large amount of lithic material, large scale lithic scatter sites are common for the area. Several small lithic debitage scatters lacking in diagnostic material surround the larger Oakmont 2 site. Just north of the central periphery of the subject property is Oakmont 4 (8AL4976) (n=4). Approximately 0.5-mile north of the northeastern portion of the APE is Oakmont 3 (8AL4975) (n=3). Oakmont 5 (8AL4978) is 0.5-mile north of the northwestern portion of

the APE (n=27). Approximately 0.75-mile north of the subject parcel is the Oakmont Historic Structure (8AL4979), a deteriorated c.1948 Frame Vernacular residence. None of these sites are considered eligible for NRHP listing (Stokes 2005).

A 1,066-acre parcel directly east of APE, the Gaines Plantation (Haile Plantation), was surveyed in 1978 by the Florida Museum for Kaskel Development (MS# 258). Two previously recorded (8AL208-209) and eight new sites (8AL818-825) were documented during the survey. Seven of these resources were within the vicinity of the subject property (8AL818-822, 824-825). A cluster of two prehistoric sites (8AL821-822) lie approximately 0.5-mile east of the APE and three prehistoric (8AL818-820) and two historic period (8AL824-825) sites occur just under 1.0-mile east. Gaines Plantation 1 (8AL818) was first described as a thin scatter of chert debitage (n=58) that likely represented Archaic occupation. The site was reinvestigated in 1994 by SouthArc, Inc. At this time, surveyors detected flakes, shatter, and cores (n=383) and labeled it a lithic quarry site. SHPO evaluated the site and it was determined to be ineligible for NRHP listing. Gaines Plantation 2 (8AL819) is a medium density scatter of small chert debitage with larger flakes and chunks (n=729). Gaines Plantation 3 (8AL820) is a dense lithic scatter, approximately 15m in diameter, and then is a thin scatter for 5m (n=1,300). Most material was detected between 80-100cmbs, 25% of the total number and 85% of the total weight. At Gaines Plantation 4 (8AL821), chert debitage was found in all test pits and one contained formal tool fragments dating to the Archaic period. Archaeologists considered this a limited activity site, possibly indicating seasonal habitation and hunting. The site consisted of a very thin scatter at surface and the heaviest concentration of lithic material at 60-75cmbs. Gaines Plantation 5 (8AL822) was a small site which contained only small chert debitage (n=101). Two sites related to the Gaines Plantation were located almost one mile east of the northern portion of the APE. At Gaines Plantation 7 (8AL824), surveyors discovered a fallen chimney and fireplace, a limestone mortar root cellar, milled lumber with embedded wire nails, and a few broken glass jars. At Gaines Plantation 8 (8AL825), a chimney fall, roof tin, lumber with wire nails, a standing gate, and posts with hog wire attached were detected. Brick and fireplace lintel were identical to and roughly contemporaneous with two other historic sites investigated during their survey. None of these sites were considered eligible for NRHP distinction (Purdy and Batcho 1978, Dickinson and Wayne 1994).

In 1994, a CRAS was conducted by SouthArc, Inc. ahead of a proposed expansion of the northern portion of Haile Plantation (Gaines Plantation) property (MS# 4118), northeast of the APE. One previously recorded (8AL232) and two new (8AL3053-3054) archaeological sites were investigated during the 588-acre survey. Only the two newly recorded sites were in the vicinity of the APE, located approximately 0.5- to 0.75-mile northwest. The two sites are described as quarry sites containing extensive lithic shatter debitage and non-diagnostic flakes. At the Old Field Site (8AL3053), which covers primarily the southern portion of the surveyed area, a single sand tempered plain sherd and a scraper tool in addition to the (n=680). The other (unnamed) site (8AL3054), which covers the majority of the northern portion of the surveyed area, contained a late 19th to early 20th century farmstead component (n=760; lithics=734, historic ceramics/glass=24).

Both sites were considered unlikely to yield new data for research and are ineligible for NRHP listing (Dickinson and Wayne 1994).

Sites within the Hickory Sink Property Boundaries

Four archaeological sites were recorded within the Area of Potential Effect by SouthArc, Inc. in 1992 (8AL2911-2914). No report was filed for the survey in which these sites were detected, though site forms were submitted to the Florida Master Site File in Tallahassee.

Half Section Sink (8AL2911)

Half Section Sink was reported in the central portion of the APE and described as a late-stage lithic preform reduction or final tool production area. Artifacts included lithic debitage and a single stemmed point dating to the Middle Archaic period (n = 656). Lithic material was found from the surface down to 150cmbs across ten acres. At the time of survey, the site was considered eligible for listing on the National Register, and likely as part of a resource district, though no SHPO evaluation has taken place. Additional testing was recommended to define discrete lithic reduction areas.

Hog Cave (8AL2912)

The Hog Cave site was detected across approximately twelve acres of the northeastern portion of the APE and was described as an early and late-stage lithic production area with discrete reduction activity areas. All artifacts were lithic in nature, except for one sand-tempered plain sherd, and included bifacial blanks, cores, and formal tool fragments (n = 1,577). The ceramic sherd was believed to be an isolate. Artifacts were present at various depths ranging from the surface to 150cmbs. The site was considered eligible for the NRHP at the time of survey and additional testing was recommended to identify special activity areas. No SHPO evaluation has been conducted.

Unnamed Sink (8AL2913)

A small prehistoric lithic diffuse scatter was recorded in the southwest corner of the APE (n=8). Only two units produced lithic material and they were 150 meters apart. No vertical stratigraphy was detected, and the find was not considered significant.

Hickory Sink (8AL2914)

Located in the west-central portion of the APE, Hickory Sink was a dense lithic scatter and described as a quarry and early-stage reduction site (n = 244). Artifacts were present from variable depths between surface and 120 cmbs across fifteen acres. A discrete artifact pattern could not be determined. Surveyors recorded the site as likely eligible for the National Register, but more information was needed.

Environmental Setting

Environmental background data for the Hickory Sink Special Area Plan cultural resource assessment survey was compiled from previous environmental studies, land use maps (FLUCFCS), historic and contemporary aerial maps, and field observations.

The project area is located within the Haile Limestone Plain of the Northern Peninsular Plain of the Ocala Uplift, a region known for its karst deposits and limestone sinks, several of which are present on the subject property.

Almost the entire 800-acre Hickory Sink Special Area Plan development tract is comprised of xeric upland scrub which is mostly new growth. When the property was used for cattle ranching and quail farming, most of the project area was clearcut. Planted pine fields (silviculture) are present in some areas of the property (see Figure 2 and photographic plates). In these areas, the heavy rotation of planted pine over the past 80 years (after the wholesale timbering of the subject tract) has caused widespread disturbance at great depth. Road construction and development activities on and surrounding the property have also impacted the land substantially. Other than spatially isolated sections of remnant hardwood (oak) hammocks which are mostly contained (and intentionally preserved by the landowner) by areas immediately around sinks and cases, all original vegetation on the property has been clearcut and removed.

There are few areas of wetlands present on the subject property. These are mostly sinks and caves that contain water at depth. The land is very dry, and the sand deposits are porous and well-draining, making water retention difficult.

Soils throughout the project tract are mostly from the Pedro-Jonesville association. Soil types in the association include Arredondo fine sand, Candler fine sand, Apopka fine sand, Millhopper sand, and Norfolk loamy fine sand, all of which described by the USDA as undulating, well-drained soils. There is substantial evidence that most of the original ground surfaces throughout the property have been altered, greatly disturbed, or displaced altogether due to agricultural activities such as silviculture, timbering, cattle ranching and quail farming.

Research Design and Field Methodology

Prehistoric and early historic settlement in the North-Central, Northeast Florida archaeological region, of which Alachua County is part, occurs predominantly in two major areas – the estuarine regions of the east coast and the freshwater river basins. Prehistoric sites, especially those of later cultural periods, are well known for these areas. While fewer prehistoric sites are known for interior regions such as those hinterlands occupied by and surrounding sections of the project area, recent archaeological surveys have revealed the presence of sites that fall outside of the coastal and riverine settlement regions. Interior sites, once regarded as enigmatic, are now constructs in site predictive models for the Alachua County area.

Evaluations of archaeological or historical site significance are based on the potential of a site to contribute to the knowledge of regional prehistory or history. Thus, consideration of these sites within the context of a larger, regional settlement system is essential. While archaeological sites are known for the riverine areas of Alachua County, little is known about prehistoric and early historic settlement in the interior areas of the region with its freshwater creeks, marshes, ponds, swamps, sinks and other drainages. Sites like those recorded for the subject property (8AL02911, 8AL02912, 8AL02913 & 8AL02914; see Previous Investigations section) demonstrate that prehistoric peoples were living and using the immediate area and surrounding interior forests. These concerns were incorporated into the research design for the Hickory Sink Special Area Plan property, a project area that occupies a hinterland location in this settlement model.

One of the principal goals of the Phase I CRAS survey was to investigate and evaluate four limestone sink-related prehistoric sites previously recorded to the Florida Master Site File: 8AL02911, 8AL02912, 8AL02913 & 8AL02914. These areas were the subject of focused research and testing. Areas around the sinks were tested at 10 - 25-meter intervals, and at five-meter intervals to determine the spatial parameters of sites and cultural material deposits (see Figure 5)

Because of disturbance caused by previous agricultural activities including cattle ranching, quail farming, timbering, and silviculture (planted pine), subsurface testing in all other areas was conducted at intervals of 50 - 100 meters. In and around an established testing interval grid, the study area was tested at greater intervals (see discussion in following paragraph regarding testing of disturbed coniferous forests) and judgmentally (see Figure 6). In general, particular attention was paid to areas of higher elevation relative to drainages and wetlands (sinks). Areas of low elevation relative to the surrounding terrain were considered less likely to contain evidence of prehistoric occupation, while those areas that were poorly drained were considered unsuitable for either habitation or cultivation during prehistoric or historic periods. Areas of demonstrated land alternation activities comprised mainly of coniferous plantations (former pine forests) road corridors, and clearcut areas were tested using an established survey grid of 100-meter intervals, unless highly disturbed (see below). All other areas were surveyed in a comprehensive manner that included surface investigations and subsurface testing at greater intervals.

Field testing of the vast coniferous plantation (planted pine) areas in xeric, mesic and hydric environments revealed extensive disturbance due to successive episodes of timbering, plowing, furrowing, and planting (see Figure 2 and photographic plates). Test pit profiles showed disturbed soils to average depths of 25 centimeters below ground surface, and in some cases, 40 centimeters below ground surface. The patterned rows of planted pines of varying age are separated by troughs that occur between the elevated beds, the raised rows of soil, or furrows, in which the pines are planted. These highly disturbed areas, along with other lands cleared for agricultural activities, were tested intermittently at greater intervals, mainly to confirm their degree of disturbance. This testing methodology was discussed and approved by Laura Kammerer, former Supervisor of the Compliance Review Section, Florida Division of Historical Resources, for similar surveys in the area (Laura Kammerer, personal communication, 2007).

Because of earlier and continuous land use on the Hickory Sink Special Area Plan development property, original land surfaces have been extensively altered by clearcutting, land grading and leveling, interior road and horse trail construction, cattle ranching, coniferous plantation agricultural activities (planted pine), timbering operations, turpentine and logging activities, and general land clearing. These extensively cleared and disturbed areas afforded exceptional surface visibility of exposed subsurface soils and cultural materials (see photographic plates). During the field investigations, these exposed surfaces were intensively examined.

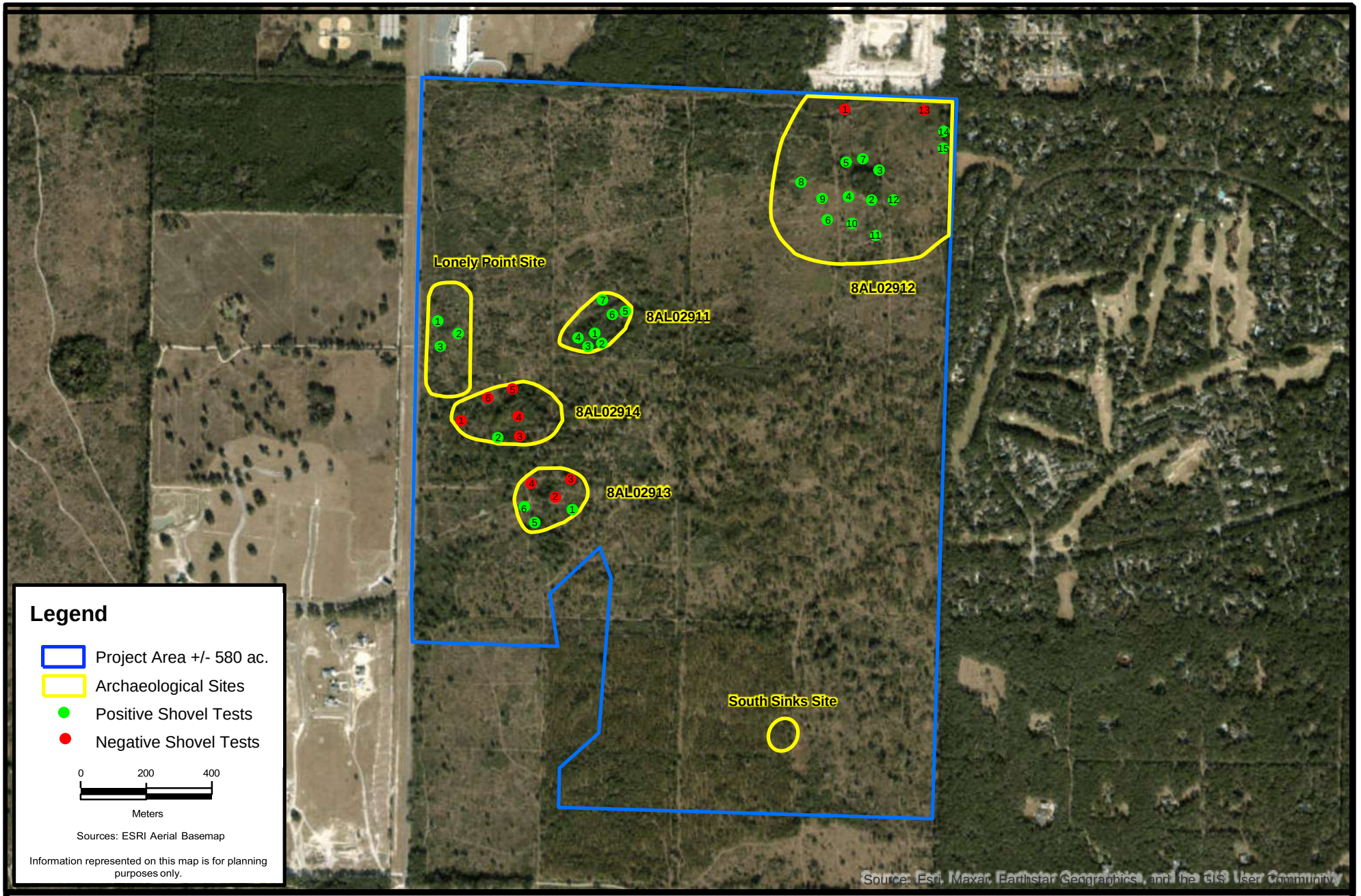
Shovel tests measuring approximately 50 centimeters in diameter were excavated to a depth of at least one meter through mainly sandy alluvial soils. All excavated soil was screened through a 1/4-inch mesh hardware cloth screen. Outside of the sink areas, shovel tests were cultural sterile through mostly disturbed soils grading from mottled white to light gray sand (0 – 40 cms b.s.), to light gray to darker gray sands.

In an effort to discern early historic structures or activities on the Hickory Sink Special Area Plan property, early maps and historic aerials were examined. No structures were identified, but a review of the historic aerial chronology shows the evolution of agricultural impact on the property. Almost the entire parcel was cleared (and disturbed) multiple times by agricultural activity and by subsequent use.

During archaeological investigations and subsequent development activities, any unmarked human burials and human skeletal remains discovered would have been brought to the attention of a District Medical Examiner if it was determined that the burial(s) represent an individual or individuals who have been dead less than 75 years, or to the attention of the State Archaeologist in the case that the remains were determined to be older than 75 years. Archaeological and development activities would cease immediately until proper authorities, the District Medical Examiner or the State Archaeologist, made a determination and authorized the continuance of work through their respective jurisdiction as defined by Florida Statutes. Procedures outlined in Chapter 872.05, Florida Statutes, would be followed regarding site preservation and protection, or mitigation, and reporting, this through the authority and direction of the District Medical

Examiner and/or the State Archaeologist. In the event of other types of unexpected archaeological finds occurring during subsequent development of the property, this same procedure will be followed.

All records of the Hickory Sink Special Area Plan archaeological investigation, including field notes, research notes, photographs, maps, forms, and manuscripts are stored in the Heritage Cultural Services, LLC, repositories in St. Augustine. Archaeological materials recovered during the survey were processed and curated at the HCS archaeological laboratory.



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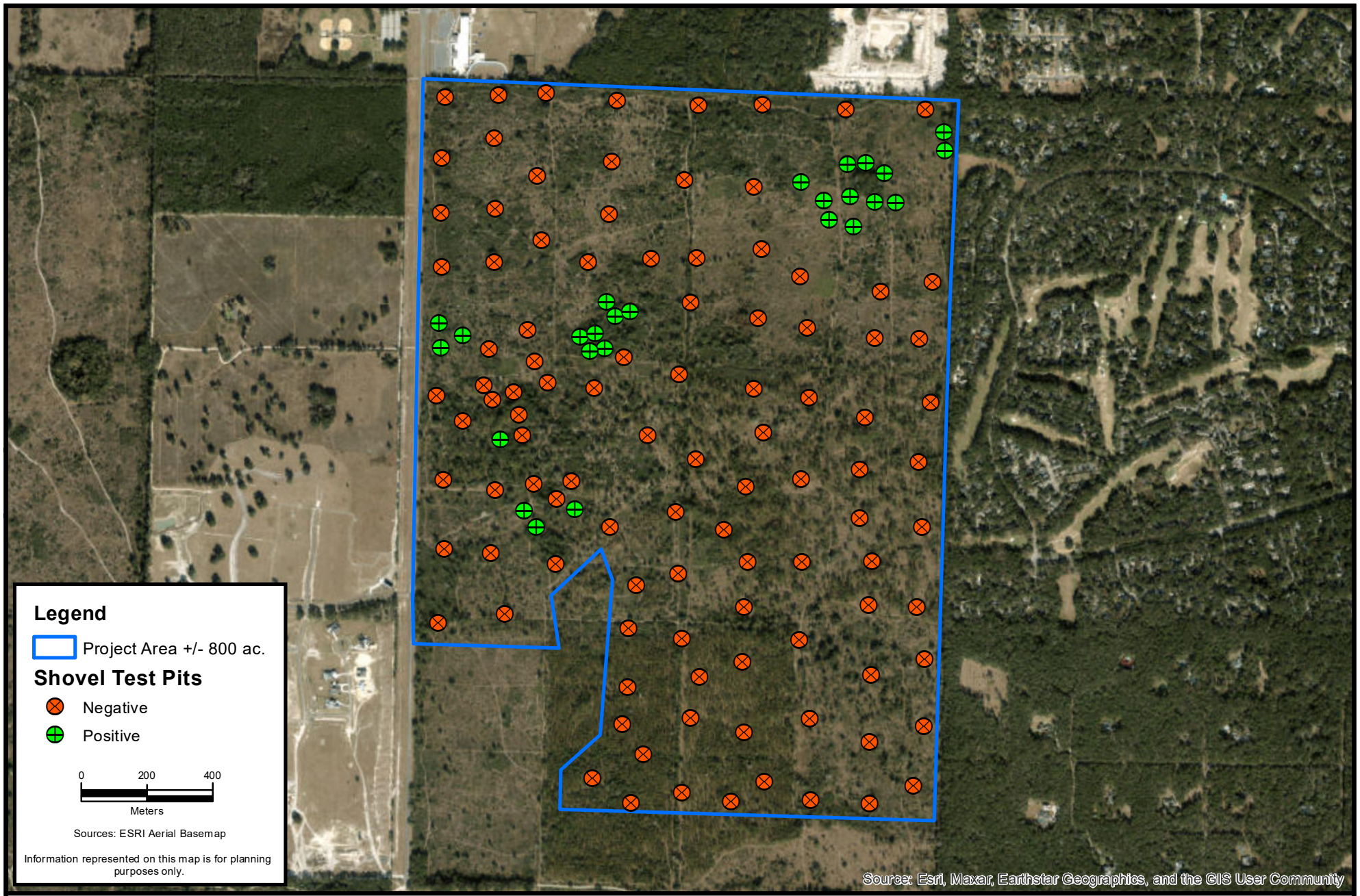
Site Specific Archaeological Shovel Test Pit Location Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: June 24 2024	Figure:	5



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Archaeological Shovel Test Pit Location Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: Jun 26 2024

Figure: 6

Recently Investigated Alachua County Sites Used in Research Design

Heritage Cultural Services, LLC, recently conducted Phase II archaeological investigations at the Tara Phoenicia site (8AL07459) and the Tara Forest Mound site (8AL07466) (Ste.Claire 2023). These lithic quarry sites were incorporated into the Hickory Sink research design as similar prehistoric sites to those found in the project area. The sites are located approximately 11 miles northeast of the subject property. In particular, the function and context of Tarra Phoenicia (8AL07459) was analogous.

Artifacts produced from Tara Phoenicia excavation units numbered 4,046, most of which was classified as lithic debitage (N = 3,890 or 96.14%). The lithic debitage artifact category includes cores, core fragments, primary and secondary decortication flakes, and secondary non-decortication and tertiary flakes

Based on the type of lithic artifacts recovered, particularly the large quantity of debitage, it was evident that the Tara Phoenicia site functioned as a secondary lithic reduction station. Here, prehistoric people used the site to extract chert stone from outcroppings exposed in a nearby sinkhole (now filled) and swamp (part of the Mill Creek Basin) to fashion the early stages of stone tools. The artifact assemblage is characterized by core fragments, decortication flakes, core shatter, lithic debitage, heat-treated chert, stone blanks and preforms, fractured unfinished projectile points and bifaces – all cultural materials that indicate lithic procurement and reduction as a principal site function.

The core and immediate extended area of the Tara Phoenicia site occupies an approximately 40 x 40-meter place on an upland ridge that slopes into an adjacent swamp. The site represents a secondary station (stage) in the lithic extraction and manufacturing process. The primary stage took place at the source of the stone (quarry) where cores and blanks were knocked off large chert nodules exposed in the walls of the sinkhole or along the banks of the swamp. This stone was carried to a higher and drier area for secondary reduction into forms that could be later finished as formal tools. Mosquitos and other insects would be less of a nuisance in these higher elevations at certain times of year, particularly the summertime (if stone was gathered during this season at all). The final lithic manufacturing stage, the completion of project points and other forma tools, most often took place at an associated village site, the location of which is unknown. There is little evidence of final projectile point manufacturing at Tara Phoenicia.

Primary debitage, mainly decortication flakes and large worked nodule and core fragments were believed to be mostly buried in the now-filled nearby sinkhole and below the waterline (and in the muck) in the adjacent swamp. The quantity of debitage in and around this quarry area is probably substantial. Conversely, primary and secondary decortication flakes represent less than 9% of the upland debitage assemblage. This low frequency of decortication material supports the hypothesis that Tara Phoenicia was an intermediary lithic reduction station. The concomitant absence of final tertiary debitage such as small pressure flakes (an 1/8-inch mesh screen was employed at several units in an effort to recover any minute debitage) and finished tools such as final-stage projectile

points suggest that stone shaped in the form of blanks and preforms were carried offsite to be finished elsewhere, probably at a village site. This lithic procurement and reduction process representing archaeologically delineated manufacturing stages and stations has been recognized at other sites such as the Golden Hills site to south in Marion County (Ste.Claire 1983) and in other areas of Florida such as the Tampa Palms sites, particularly the Rock Hammock site, a Hernando projectile point manufacturing complex (Austin and Ste.Claire 1982; Ste.Claire 1982, 1996).

Subsistence related artifacts, mainly a relatively low quantity of ceramics, indicate that prehistoric people were using the Tara Phoenicia site as a short-term, seasonal encampment to procure and shape stone rather than as a permanent occupation.

Two broken Bolen-like project points (one a manufacturing failure and the other a base fractured by impact), a Marianna point, and a turtleback scraper suggest that stone was extracted from the quarry as early as the Early Archaic period (9,500 - 7000 B.C.) A small assemblage of ceramics (105 sherds or 2.6% of the artifact assemblage) and Pinellas points (N = 4) (Plates 3 and 4) indicate that later prehistoric people were using the site for the same purpose. This would indicate that the quarry was a known and desirable source of chert for stone tool manufacture for over 10,000 years. The Middle Archaic period (6,000 - 3,000 B.C) is prominently represented in the artifact assemblage based on the higher frequency of Archaic-Stemmed project point preforms, late-stage manufacturing failures, and nearly finished implements found (Plate 5). These materials were mostly recovered from levels 5 - 10 (50 – 100 centimeters below surface).

While most of the cultural materials found at Tara Phoenicia evidence a lithic reduction station and encampment, a small number of atypical artifacts represent specialized functions that bear mentioning. An unusual early prehistoric dimple stone was recovered from a deep level. Dimple stones have been described as totems and atlatl weights, among other functions (Brawner 2012; Gerrell 1990; Rachels & Knight 2004). The enigmatic stones are often associated with Early Archaic and PaleoIndian period contexts. Three small fragments of clear quartzite were also recovered. The crystal quartz is not native to the region and was likely transported in from areas north of Florida, possibly in trade. The function of the stones is unknown.

One final note about Tara Phoenicia artifacts should be conveyed. A single, clearly identifiable flake knife (with recognizable cutting use wear) was recovered from level 5 of Unit I. In identifying utilized flakes and use wear at stone tool manufacturing sites, lithic analysts should be aware that large quantities of debitage resulting from multiple flintknapping episodes will invariably produce artificial flake “wear” through stone-on-stone contact and by prehistoric technicians and others walking across piles of stone flakes, a “modification” known as trampling wear. The misidentification of large assemblages of “utilized flakes” such as those described for the Senator Edwards site in Alachua County (Purdy 1975) can significantly skew an interpretation of site function.

Survey Results and Management Recommendations

Heritage Cultural Services, LLC, was contracted by England-Thims & Miller (ETM) in April 2024 to conduct a Phase I cultural resource assessment survey of the 800-acre Hickory Sink Special Area Plan development property located in Gainesville, Alachua County, Florida. The comprehensive archaeological survey was conducted to satisfy the permitting requirements of the County of Alachua and the State Historic Preservation Office (SHPO)/Florida Division of Historical Resources (DHR).

Archaeological investigations across the 800-acre project area produced two new archaeological and historical sites (8AL07584 and 8AL07585). The Phase I CRAS also included the investigation and reevaluation of four previously recorded archaeological sites (8AL02911, 8AL02912, 8AL02913 & 8AL02914) (see Figure 7, Archaeological Site Location Map).

Half Section Sink - 8AL02911

Half Section Sink is located across approximately 10 acres in the central portion of the subject property. Chert outcroppings were present throughout the property. Artifacts detected at the site are primarily secondary (n=147) and tertiary (n=133) decortication lithic debitage, with a small amount of primary decortication flakes (n=19), which indicates that this site may be a middle to late-stage tool manufacturing area. No projectile points or PPK preforms were detected during surface collection or shovel testing. Herty cup fragments are also present (n=21); evidence of turpentining activity on the property from at least the early 20th century. Even though there is a high concentration of lithic artifacts at Half Section Sink associated with tool reduction, this site is similar to many other sites in the area. The small naval stores component of the site is not considered historically significant.

	Herty Cup Fragments	**Primary Decortication**	**Secondary Decortication**	**Tertiary Decortication**	**TOTAL**
Surface	19	13	118	96	**246**
STP1	0	0	7	0	**7**
STP2	0	0	6	0	**6**
STP3	0	1	5	9	**15**
STP4	0	0	4	2	**6**
STP5	0	3	0	12	**15**
STP6	1	0	2	9	**12**
STP7	1	2	5	5	**13**
TOTAL	**21**	**19**	**147**	**133**	**320**

Hog Cave/Bat Cave - 8AL02912

The Hog Cave/Bat Cave site is located across approximately 75 acres of the northeastern portion of the subject property and is likely an extension of the Oakmont 2 site (8AL4974) located directly to the north. Chert outcroppings were present throughout the property. A high density of secondary decortication (n=240) and tertiary (n=583) lithic

flakes, as well as a single projectile point preform were identified at the Hog Cave/Bat Cave site. Primary decortication flakes occur in a lower density (n=75). Shovel test pits 3 and 7 contained the highest ratio of primary flakes, whereas Shovel test pits 2, 5, and 9 have a higher concentration of tertiary flakes. These ratios indicate that the site may be a middle to late-stage tool manufacturing area, with a few localized early-stage tool production areas. Herty Cup fragments (n=7) were also present at the site, evidence of turpentine industry activity on the property dating to at least the early 20th century.

Even though there is a high concentration of lithic materials at this site associated with tool reduction and a projectile point preform, this site is similar to many other sites in the area and vertical stratification was not detected. The small Naval stores component of the site is not considered historically significant.

	Herty Cup Fragments	**Primary Decortication**	**Secondary Decortication**	**Tertiary Decortication**	**Preform PPK**	**TOTAL**
Surface	5	44	189	408	1	**644**
STP1	0	0	0	0	0	**0**
STP2	0	0	4	35	0	**39**
STP3	0	13	3	0	0	**16**
STP4	0	3	4	8	0	**15**
STP5	2	1	19	113	0	**135**
STP6	0	0	1	0	0	**1**
STP7	0	6	1	1	0	**8**
STP8	0	1	2	1	0	**4**
STP9	0	2	7	12	0	**21**
STP10	0	0	2	2	0	**4**
STP11	0	2	0	0	0	**2**
STP12	0	1	6	2	0	**9**
STP13	0	0	0	0	0	**0**
STP14	0	1	0	0	0	**1**
STP15	0	4	2	1	0	**7**
TOTAL	**7**	**78**	**240**	**583**	**1**	**906**

Unnamed Sink - 8AL02913

Unnamed Sink is a low-density lithic scatter, with a small historic component covering approximately 8.5 acres in the southwestern portion of the subject property. Most of the lithic debitage found at the site consisted of secondary decortication flakes (n=24), but primary (n=8) and tertiary flakes (n=12) were also detected. A small amount of Herty Cup fragments were also identified at the site (n=4), which is evidence of turpentine industry activities at the property dating to at least the early 20th century. This low-density scatter site is common to the area and not likely to yield additional data for research.

	Herty Cup Fragments	Primary Decortication	Secondary Decortication	Tertiary Decortication	TOTAL
Surface	3	4	21	11	**39**
STP1	0	0	1	0	**1**
STP2	0	0	0	0	**0**
STP3	0	0	0	0	**0**
STP4	0	0	0	0	**0**
STP5	0	4	2	1	**7**
STP6	1	0	0	0	**1**
TOTAL	**4**	**8**	**24**	**12**	**48**

Hickory Sink - 8AL02914

Hickory Sink is a low-density lithic scatter, with a small historic component across approximately fifteen acres in the west-central portion of the subject property. Most of the lithic material was detected at the surface level, as only one flake was discovered in subsurface testing. Secondary and tertiary decortication flakes were identified in almost equal numbers and no primary flakes were found at all, indicating that this area was likely used as a middle to late-stage lithic tool production area. Six Herty Cup fragments were also collected, which is evidence of early 20th century, possibly earlier, naval stores industry presence at the property. This low-density scatter site is common to the area and not likely to yield additional data for research.

	Herty Cup Fragments	Primary Decortication	Secondary Decortication	Tertiary Decortication	TOTAL
Surface	6	0	37	46	**89**
STP1	0	0	0	0	**0**
STP2	0	0	1	0	**1**
STP3	0	0	0	0	**0**
STP4	0	0	0	0	**0**
STP5	0	0	0	0	**0**
STP6	0	0	0	0	**0**
TOTAL	**6**	**0**	**38**	**46**	**90**

Lonely Point – 8AL07584

A low-density artifact scatter was detected across approximately eight acres along the western perimeter of the northwestern quadrant of the subject property. Most of the artifacts are flakes, with the largest proportion being tertiary decortication (n=47) followed by secondary (n=31). Primary decortication flakes were present in small numbers (n=5) and a single Bolen Beveled, subtype 1 projectile point was also detected on the surface, which is indicative of a Late Paleoindian to Early Archaic transitional cultural period. A small amount of Herty Cup fragments (n=3) were present at the site, which is evidence of the Naval stores industry activity on the property dating to at least the early 20th century. This small artifact scatter site is common to the area and not likely to yield additional data for research.

	Herty Cup Fragments	Primary Decortication	Secondary Decortication	Tertiary Decortication	PPK	TOTAL
Surface	3	0	17	26	1	**47**
STP1	0	1	6	7	0	**14**
STP2	0	2	2	6	0	**10**
STP3	0	2	6	8	0	**16**
TOTAL	**3**	**5**	**31**	**47**	**1**	**87**

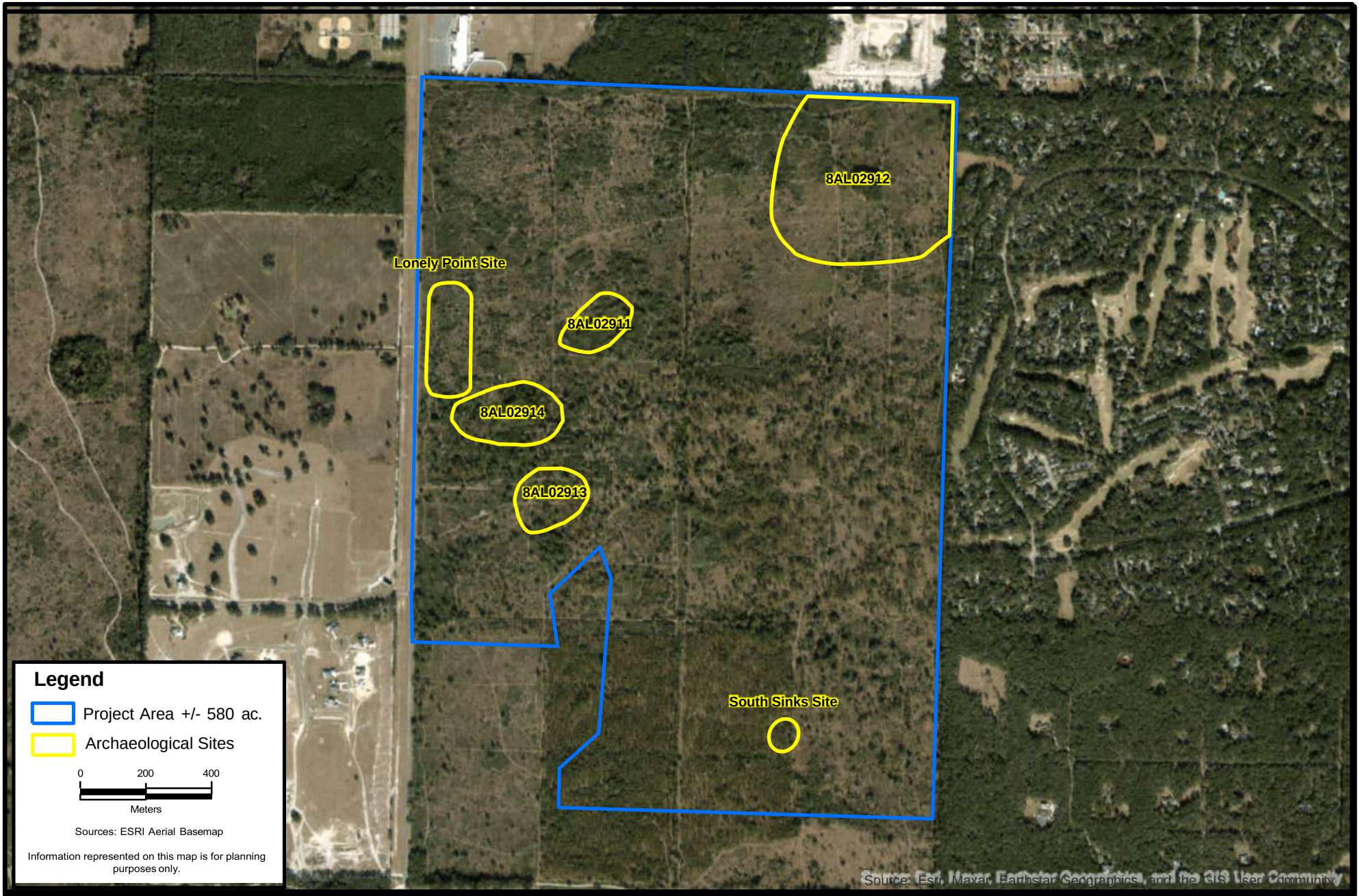
South Sinks – 8AL07585

South Parcel is a low-density multicomponent artifact scatter covering less than 1.5 acres in the southeastern portion of the subject property, nearby four small unnamed sinks. Five Herty Cup fragments and a single piece of milk glass, as well as two secondary decortication flakes were detected on the surface. This small prehistoric lithic and historic Naval stores industry scatter site is common to the area and not likely to yield additional data for research.

Herty Cup	Milk Glass	Primary Decortication	Secondary Decortication	Tertiary Decortication	TOTAL
5	1	0	2	0	**8**

The prehistoric archaeological sites on the Hickory Sink Special Area Plan development property represent a pattern of lithic scatters and widely distributed artifacts related to the procurement of chert from quarries, in this case multiple sinks, and the subsequent manufacture of stone tools. Consequently, 8AL02911, 8AL02912, 8AL02913, 8AL02914, 8AL07584 and 8AL07585 will offers little research potential beyond what is already known for the Alachua County area where prominent Archaic period lithic manufacturing and quarrying sites have been extensively researched (see Archaic Period Lithic Resource Sites section). Hog Cave (8AL02912) produced the largest frequency of artifacts (N = 906) of the six sites, but the lithic debitage is scattered over a large area. No cultural stratigraphic or cultural context was detected at this site or any of the others. This evaluation is consistent with the original assessments of the four previously documented sites when they were recorded to the Florida Master Site File in 1992. Therefore, it is the opinion of Heritage Cultural Services, LLC, that sites 8AL02911, 8AL02912, 8AL02913, 8AL02914, 8AL07584 and 8AL07585 (FMSF numbers to be assigned by DHR) are ineligible for listing in the *National Register of Historic Places*. It should be noted that concentrations of lithic artifacts at 8AL02912 and 8AL02914 will be preserved by the proposed conservation of Hog Cave and Hickory Sink as environmentally sensitive areas.

In conclusion, it is the opinion and recommendation of Heritage Cultural Services, LLC, that no cultural resources eligible for listing in the *National Register of Historic Places* will be impacted by development on the Hickory Sink Special Area Plan property. No further archaeological work is recommended.



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Site Location Map

Hickory Sink Special Area Plan

Project:	24041	Alachua County, FL	Date: June 24 2024	Figure:	7

Photographic Plates

Figure 1 - Hickory Sink, interiors (former cattle ranchlands and quail farm)

Figure 2 - Hickory Sink, investigating sink

Figure 3 - Hickory Sink, one of several sinks on property

Figure 4 - Hickory Sink, Hog Cave

Figure 5 - Hickory Sink, planted pine density

Figure 6 - Hickory Sink, clear-cut & leveled interiors (replanted)

Figure 7 - Hickory Sink, minor sink in southern area

Figure 8 - Hickory Sink, typical sand exposure

Figure 9 - Hickory Sink, investigating one of the larger sinks in the southern area

Figure 10 - Hickory Sink, galvanized metal cattle troughs, evidence of former cattle ranching

Figure 11 - Hickory Sink, large chert outcropping

Figure 12 - Hickory Sink, investigating limestone & chert outcroppings located in central portions of the property

Figure 13 - Hickory Sink, chert outcroppings with turpentine Herty Cup fragments

Figure 14 - Hickory Sink, Bolen Beveled projectile point (Early Archaic period) found near Parker Road entrance

Figure 15 - Hickory Sink, chert outcropping

Figure 16 - Hickory Sink, exploring Hog Cave (8AL02912)

Figure 17 - Hickory Sink, screening sand backfill from archaeological shovel test pit near 8AL02914

Figure 18 - Hickory Sink, archaeological shovel test pit showing depth (meter plus) of excavation through well-drained sandy soils.

Figure 19 - Hickory Sink, archaeological test pit excavation near Hog Cave

Figure 20 - Hickory Sink, processing & analyzing lithic debitage in HCS laboratory

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2012 First Floridians and Last Mastodons: The Page-Ladson Site on the Aucilla River; Geobiology Volume 26, Springer.

Wheeler, Ryan J., James J. Miller, Ray M. McGee, Donna Ruhl, Brenda Swann, and Melissa Memory
2003 Archaic Period Canoes from Newnans Lake, Florida. *American Antiquity* 68(3):533-551.

Willey, Gordon R.
1949 *Archaeology of the Florida Gulf Coast.* Reprint, Florida Book Store, Inc., Gainesville, Florida.

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1983 *Golden Hills Archaeological Survey, Marion County, Florida.* Report prepared for North Florida Engineering and Survey.

Witthoft, John
1969 Lithic Materials and Technology. Southern Archaeological Conference, Bulletin No. 9, pp 3-8.

Worth, John E.
1998 *The Timucuan Chiefdoms of Spanish Florida, Volume 1: Assimilation*. Ripley P. Bullen Series, University Press of Florida, Gainesville, Florida.

1998 *The Timucuan Chiefdoms of Spanish Florida, Volume 2: Resistance and Destruction*. Ripley P. Bullen Series, University Press of Florida, Gainesville, Florida.

Attachment A:

Survey Log Sheet

Clear Form Values

Ent D (FMSF only) _____

Survey Log Sheet

Florida Master Site File
Version 5.0 3/19

Survey # (FMSF only) _____

Consult *Guide to the Survey Log Sheet* for detailed instructions.

Manuscript Information

Survey Project (name and project phase)

Hickory Sink Special Area Plan Cultural Resource Assessment Survey, City of Gainesville, Alachua County, Florida

Report Title (exactly as on title page)

Phase I Cultural Resource Assessment Survey of the Hickory Sink Special Area Plan, Alachua County, Florida; Alachua County Permit Application No.: 2024-0000; DHR Project File No.: 2024-0000

Report Authors (as on title page) 1. Ste.Claire, Dana 3. _____ 2. _____ 4. _____

Publication Year 2024 **Number of Pages in Report** (do not include site forms) 81

Publication Information (Give series, number in series, publisher and city. For article or chapter, cite page numbers. Use the style of *American Antiquity*.)

HSI Report Series 2024-053

Supervisors of Fieldwork (even if same as author) Names Dana Ste.Claire, M.A., RPA

Affiliation of Fieldworkers: Organization Heritage Services, Inc. City Ponte Vedra

Key Words/Phrases (Don't use county name, or common words like *archaeology*, *structure*, *survey, architecture, etc.*)

1. Hickory Sink 3. Parker Street 5. Lithic Debitage 7. Cattle Ranch
2. Hog Cave 4. Chert Quarries 6. Karst 8. Quail Farm

Survey Sponsors (corporation, government unit, organization, or person funding fieldwork) Clear Sponsor Values

Name England-Thims & Miller (ETM) Organization Other

Address/Phone/E-mail Jacksonville, Florida

Recorder of Log Sheet Dana Ste.Claire, M.A., RPA **Date Log Sheet Completed** 6-7-2024

Is this survey or project a continuation of a previous project? ☒No ☐Yes: **Previous survey #s (FMSF only)** _____

Project Area Mapping

Clear Mapping Values

Counties (select every county in which field survey was done; attach additional sheet if necessary)

1. Alachua 3. _____ 5. _____
2. _____ 4. _____ 6. _____

USGS 1:24,000 Map Names/Year of Latest Revision (attach additional sheet if necessary)

1. Name ARREDONDO Year 1943
2. Name ARREDONDO Year 1993
3. Name _____ Year _____
4. Name _____ Year _____
5. Name _____ Year _____
6. Name _____ Year _____

Field Dates and Project Area Description

Fieldwork Dates: Start 5-11-2024 End 6-26-2024 **Total Area Surveyed** (fill in one) _____ hectares 800.00 acres

Number of Distinct Tracts or Areas Surveyed 1

If Corridor (fill in one for each) **Width:** _____ meters _____ feet **Length:** _____ kilometers _____ miles

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com

Survey Log Sheet

Survey #_____

Research and Field Methods

Types of Survey (select all that apply): ☒archaeological ☐architectural ☐historical/archival ☐underwater ☐damage assessment ☐monitoring report ☐other(describe): _____

Scope/Intensity/Procedures

Pedestrian survey and shovel testing at 25 - 100 meter intervals; .5 meter units screened through 1/4" mesh. Probing for features & foundations, and metal detector equipment used to locate historic artifacts.

Preliminary Methods (select as many as apply to the project as a whole)

☐Florida Archives (Gray Building)	☒library research- *local public*	☒local property or tax records	☒other historic maps	☐LIDAR
☐Florida Photo Archives (Gray Building)	☐library-special collection	☒newspaper files	☒soils maps or data	☐other remote sensing
☒Site File property search	☐Public Lands Survey (maps at DEP)	☒literature search	☐windshield survey	
☒Site File survey search	☐local informant(s)	☐Sanborn Insurance maps	☒aerial photography	

☐other (describe): _____

Archaeological Methods (select as many as apply to the project as a whole)

☐Check here if **NO** archaeological methods were used.

☒surface collection, controlled	☒shovel test-other screen size	☐block excavation (at least 2x2 m)	☒metal detector
☐surface collection, **un**controlled	☐water screen	☐soil resistivity	☐other remote sensing
☒shovel test-1/4"screen	☐posthole tests	☐magnetometer	☒pedestrian survey
☐shovel test-1/8" screen	☐auger tests	☐side scan sonar	☐unknown
☐shovel test 1/16"screen	☐coring	☐ground penetrating radar (GPR)	
☒shovel test-unscreened	☐test excavation (at least 1x2 m)	☐LIDAR	

☐other (describe): Probing

Historical/Architectural Methods (select as many as apply to the project as a whole)

☐Check here if **NO** historical/architectural methods were used.

☐building permits	☐demolition permits	☐neighbor interview	☐subdivision maps
☐commercial permits	☐windshield survey	☐occupant interview	☐tax records
☐interior documentation	☒local property records	☐occupation permits	☐unknown

☐other (describe): _____

Survey Results

Resource Significance Evaluated? ☒Yes ☐No Clear Check Boxes

Count of Previously Recorded Resources 4 **Count of Newly Recorded Resources** 2

List Previously Recorded Site ID#s with Site File Forms Completed (attach additional pages if necessary)

8AL02911, 8AL02912, 8AL02913, 8AL2914

List Newly Recorded Site ID#s (attach additional pages if necessary)

8AL00000, 8AL00000

Site Forms Used: ☐Site File Paper Forms ☒Site File PDF Forms

REQUIRED: Attach Map of Survey or Project Area Boundary

SHPO USE ONLY **SHPO USE ONLY** **SHPO USE ONLY**

Origin of Report: ☐872 ☐Public Lands ☐UW ☐1A32 # _____ ☐Academic ☐Contract ☐Avocational ☐Grant Project # _____ ☐Compliance Review: CRAT # _____

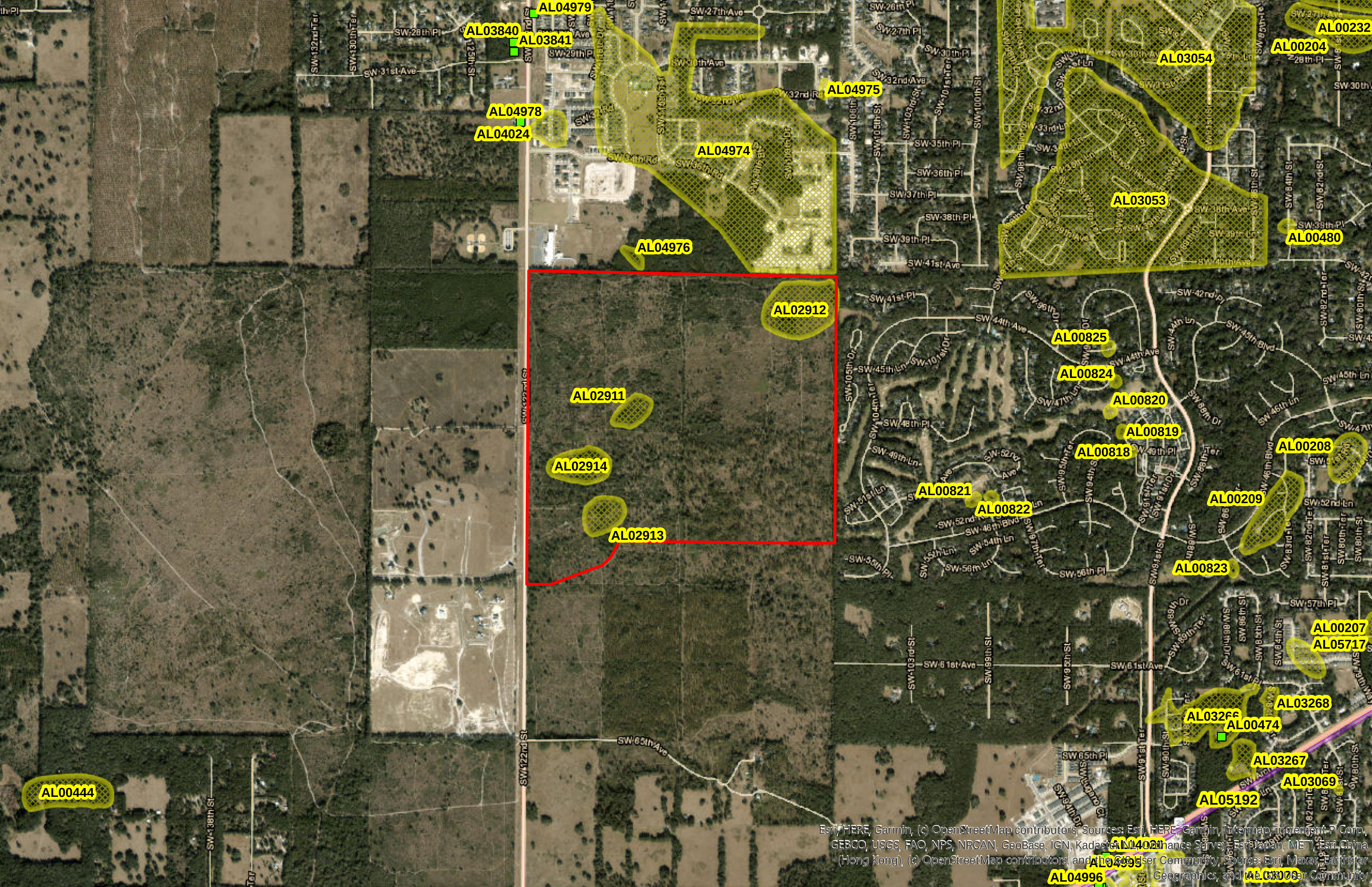
Type of Document: ☐Archaeological Survey ☐Historical/Architectural Survey ☐Marine Survey ☐Cell Tower CRAS ☐Monitoring Report ☐Overview ☐Excavation Report ☐Multi-Site Excavation Report ☐Structure Detailed Report ☐Library, Hist. or Archival Doc ☐Desktop Analysis ☐MPS ☐MRA ☐TG ☐Other: _____

Document Destination: Plottable Projects **Plotability:** _____

Florida Master Site File / Div. of Historical Resources / R.A. Gray Bldg / 500 S Bronough St., Tallahassee, Florida 32399-0250
Phone 850.245.6440, Fax 850.245.6439, Email: SiteFile@dos.myflorida.com

Attachment B:

Florida Master Site File Data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AL03841
AL04975
AL03054
AL00232
AL00204
AL04978
AL04024
AL04974
AL03053
AL00480
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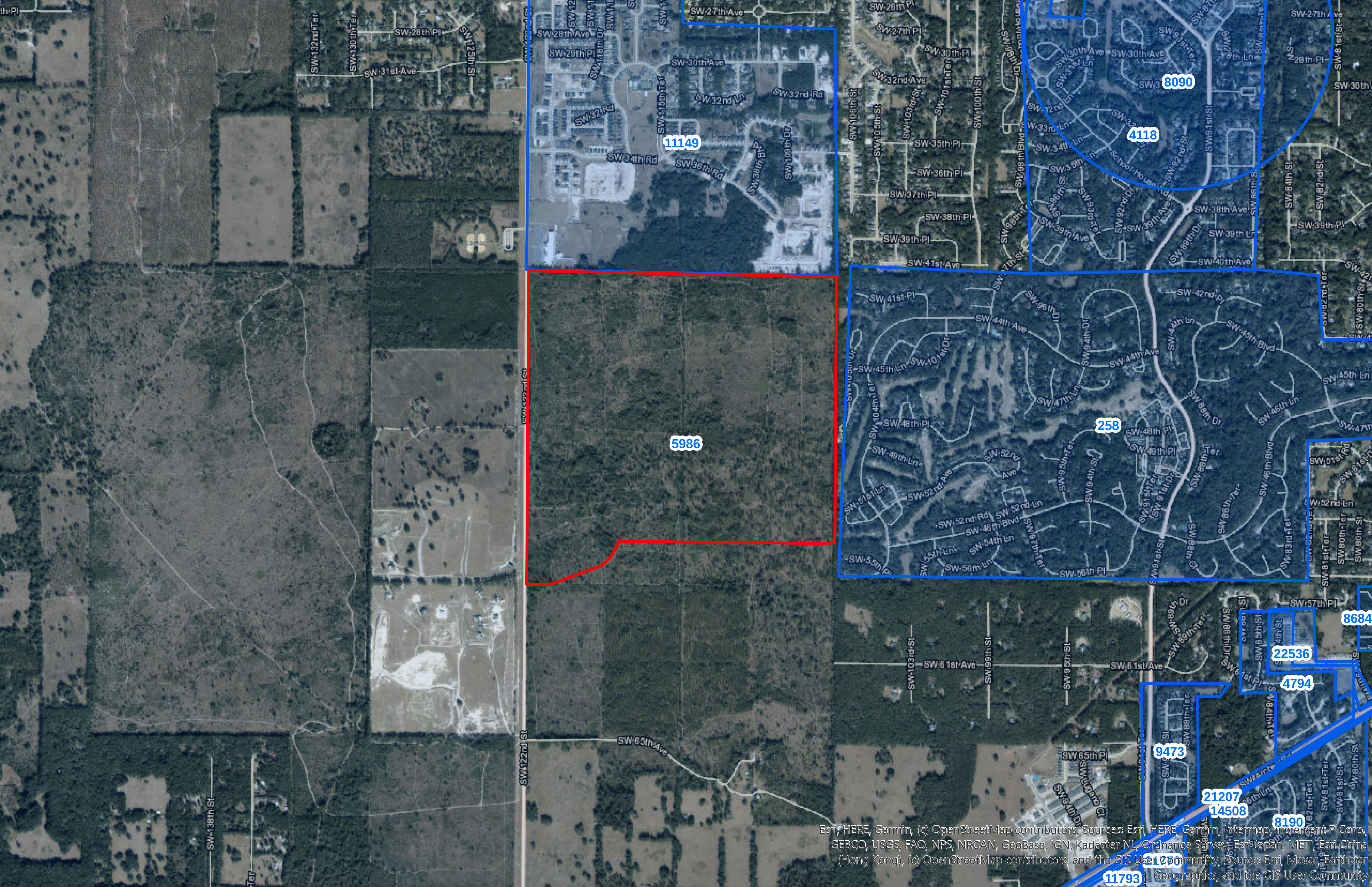
AL02912
AL00825
AL00824
AL02911
AL00820
AL00819
AL00818
AL00208
AL02914
AL00821
AL00822
AL00209
AL02913
AL00823
AL00207
AL05717
AL03268
AL03266
AL00474
AL03267
AL03069
AL05192
AL00444
AL04996
SW 27th Ave
SW 28th Pl
SW 31st Ave
SW 41st Ave
SW 44th Ave
SW 61st Ave
SW 65th Ave
SW 122nd St
Esri, HERE, Garmin, (c) OpenStreetMap contributors, Sources: Esri, HERE, Garmin, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

AR=33
SS=6
CM=0
RG=1
BR=0
Total=40

Cultural Resource Roster

SiteID	Type	Site Name	Address	Additional Info	SHPO Eval	NR Status
AL00204	AR	HAUZE				
AL00207	AR	TAYLOR	arreddondo		Not Eligible	
AL00208	AR	NN				
AL00209	AR	HAILE				
AL00232	AR	NEWBERRY AREA 3				
AL00444	AR	CHILEDGE				
AL00474	SS	KANAPAHA (HAILE PLANTATION)	EIGHT MILES SW OF GAINESVIL, GAINESVILLE	c1850 Frame Vernacular		NR Listed - May 02, 1986
AL00480	AR	YORK				
AL00818	AR	HAILE LITHIC QUARRY	GAINESVILLE		Not Eligible	
AL00819	AR	GAINES PLANTATION 2				
AL00820	AR	GAINES PLANTATION 3				
AL00821	AR	GAINES PLANTATION 4				
AL00822	AR	GAINES PLANTATION 5				
AL00823	AR	GAINES PLANTATION 6				
AL00824	AR	GAINES PLANTATION 7				
AL00825	AR	GAINES PLANTATION 8				
AL02911	AR	HALF SECTION SINK	GAINESVILLE			
AL02912	AR	HOG CAVE	GAINESVILLE			
AL02913	AR	UNNAMED SINK	GAINESVILLE			
AL02914	AR	HICKORY SINK	GAINESVILLE			
AL03053	AR	OLD FIELD	GAINESVILLE		Not Eligible	
AL03054	AR	NN	GAINESVILLE		Not Eligible	
AL03069	AR	UNSPECIFIED	GAINESVILLE			
AL03070	AR	UNSPECIFIED	GAINESVILLE			
AL03266	AR	HAILE PLANTATION	Gainesville		Not Eligible	
AL03267	AR	HAILE LITHIC	GAINESVILLE			
AL03268	AR	BLACK HAW	GAINESVILLE			
AL03840	SS	2850 SW 122ND ST	2850 SW 122ND ST, GAINESVILLE	1935 Frame Vernacular		
AL03841	SS	SW 122ND ST	SW 122ND ST, GAINESVILLE	1940 Frame Vernacular		
AL04020	SS	9304 SW ARCHER RD	9304 SW ARCHER RD, GAINESVILLE	1948 Frame Vernacular		
AL04024	SS	3406 SW 122ND ST	3406 SW 122ND ST, ARCHER	1945 Frame Vernacular		
AL04974	AR	Oakmont 2	Gainesville		Not Eligible	
AL04975	AR	Oakmont 3	Gainesville		Not Eligible	
AL04976	AR	Oakmont 4	Gainesville		Not Eligible	
AL04978	AR	Oakmont 5	Gainesville		Not Eligible	
AL04979	SS	Oakmont Historic Structure	SW 122nd ST, Gainesville	1948 Frame Vernacular	Not Eligible	
AL04995	AR	BBQ Grill	Gainesville		Not Eligible	
AL04996	AR	Blackberry	Arredondo		Not Eligible	
AL05192	RG	Florida Railroad Corridor	Waldo	Linear Resource - 0 Contrib Resources	Eligible	
AL05717	AR	Chestnut Plantations 1	Gainesville/Kanapaha		Not Eligible	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11149
8090
4118
258
8684
22536
4794
9473
21207
14508
8190
11793
SW 27th Ave
SW 28th Ave
SW 30th Ave
SW 32nd Rd
SW 34th Rd
SW 41st Ave
SW 44th Ave
SW 61st Ave
SW 65th Ave
SW 122nd St
SW 138th St
Esri, HERE, Garmin, (c) OpenStreetMap contributors, Sources: Esri, HERE, Garmin, Intermap, Increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, GeoBase, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), (c) OpenStreetMap contributors, and the GIS User Community, Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

Florida Master Site File

Manuscript Roster

Total=14

MS#	Title	Publication Information	Year
22536	A Phase I Cultural Resource Assessment of the Chestnut Plantations Parcel, Alachua County, Florida	AHC Technical Report #1085	2015
21770	Cultural Resources Survey, Southwest Archer Road, Alachua County, Florida	SouthArc, Inc., prepared for Multerra, LLC	2014
14508	Historic Structure Documentation of the Florida Railroad from Fernandina Beach in Nassau County to Cedar Key in Levy County, Florida	on file Southeastern Archaeological Research, Inc., Jonesville, Fl and Florida Division of Historical Resources, Tallahassee, Fl	2006
11793	Cultural Resources Survey Southwest Gainesville YMCA, Gainesville, Alachua County, Florida	Dickinson, Martin F., Lucy B. Wayne. 2005. Cultural Resources Survey, Southwest Gainesville YMCA, Gainesville, Alachua County, Florida. SouthArc, Inc., Gainesville, Florida.	2005
11149	A Phase 1 Cultural Resource Survey of the Oakmont Property, Alachua County, Florida	On file at DHR and SEARCH, Jonesville	2005
8684	Cultural Resources Survey and Assessment Selnik Gainesville Tract Alachua County, Florida	Southarc, Inc. Gainesville. Submitted to Selnik Development, LLC	2003
9473	Cultural Resources Survey and Assessment, Eloise Gardens, Alachua County, Florida	SouthArc, Inc., Gainesville. Submitted to HG Joint Venture	2003
8090	Cultural Resource Survey: Proposed Cell Tower #J-202 Avalon Site; Alachua County, Florida	SOUTHEASTERN ARCHAEOLOGICAL RESEARCH, INC., GAINESVILLE. Submitted to ENVIRONMENTAL RESOURCE SOLUTIONS, INC.	2001
5986	Historic Structures Survey of Unicorporated Alachua County	QUATREFOIL/ANDERSON CONSULTING, SAVANNAH, GA. SUBMITTED TO ALACHUA COUNTY	2000
4794	A Cultural Resource Assessment Survey of Haile Forest, Alachua County, Florida	Southeastern Archaeological Research, Inc., Gainesville. Submitted to Brown and Cullen, Inc., Gainesville	1997
4118	Cultural Resources Survey and Assessment Proposed Haile Plantation Addition, Alachua County, Florida	SouthArc, Inc., Gainesville. Submitted to HG Joint Venture, Gainesville	1994
8190	Reconnaissance Survey Report, York Property, Alachua County, Florida	Southarch inc, Gainesville. Submitted to E.T. York, Gainesville, Florida	1994
21207	Proposed Multilaning of State Road 24/Archer Road, from State Road 93/Interstate 75 to Archer, in Alachua County, Florida		1984
258	Gaines Plantation (Haile Plantation) DRI	Application for Development Approval, Question 19, Gaines Plantation DRI.	1978

Attachment C:

Florida Master Site File Form

☐Original
☒Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 AL02911
Field Date 5-22-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) Half Section Sink **M**ultiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property **S**urvey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO **U**SGS Date 2021 **P**lat or Other Map _____
City/Town (within 3 miles) Gainesville **I**n City Limits? ☐yes ☒no ☐unknown **C**ounty Alachua
Township 10S **R**ange 18E **S**ection 24 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
Township _____ **R**ange _____ **S**ection _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ **T**ax Parcel # _____
UTM Coordinates: **Z**one ☐16 ☐17 **E**asting ☐☐☐☐☐☐ **N**orthing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ **C**oordinate System & Datum _____
Address / Vicinity / Route to:

518 meters east of Parker Road, 2.19 kilometers south of SW 24th Ave

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
☐usually flooded
☐usually dry
☒Cave/Sink (*subterranean*)
☒terrestrial
☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☒surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☐Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☐Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☐Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Though there is a high concentration of lithic material at this site associated with tool reduction, this site is similar to many others in the area. The naval stores component of the site is not considered historically significant.

Recommendations for Owner or SHPO Action

No further work is recommended.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

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Phone **850.245.6440** / Fax **850.245.6439** / E-mail **SiteFile@dos.myflorida.com**

ARCHAEOLOGICAL SITE FORM

Site #8 AL02911

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 40,000 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Prehistoric, likely preceramic, lithic reduction site. Small historic, likely late 19th-early 20th century, turpentine industry component.

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 40000 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 320 ⦿count ○estimate | Surface # 246 | Subsurface # 74

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A	Lithics
A	Forestry equipment

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Lithic debitage: Primary (19), secondary (147), and tertiary (133) flakes; Herty cup fragments (21)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. _____ N=____ 4. _____ N=____ 7._____ N=____
2. _____ N=____ 5. _____ N=____ 8._____ N=____
3. _____ N=____ 6. _____ N=____ 9._____ N=____

ENVIRONMENT

Nearest fresh water: Type Sink Name Hickory Sink Distance from site (m) 340
Natural community XERIC UPLANDS SCRUB Topography_____ Elevation: Min ____m Max ____m
Local vegetation Scrub oak, mixed pine, mixed hardwood
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description_____ File or accession #'s _____

2) Document type Photographs Maintaining organization Heritage Services, Inc.
Document description_____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name Val Lee
Address / Phone / E-mail Parker Road, Gainesville, Florida

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

☐Original
☒Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 AL02912
Field Date 5-22-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) Hog Cave/Bat Cave **M**ultiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property **S**urvey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO **U**SGS Date 2021 **P**lat or Other Map _____
City/Town (within 3 miles) Gainesville **I**n City Limits? ☐yes ☒no ☐unknown **C**ounty Alachua
Township 10S **R**ange 18E **S**ection 24 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
Township _____ **R**ange _____ **S**ection _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ **T**ax Parcel # _____
UTM Coordinates: **Z**one ☐16 ☐17 **E**asting ☐☐☐☐☐☐ **N**orthing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ **C**oordinate System & Datum _____
Address / Vicinity / Route to:

1.07 km east of Parker Road, 2.5 km south of SW 24th Avenue

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
  ☐usually flooded
  ☐usually dry
☒Cave/Sink (*subterranean*)
  ☒terrestrial
  ☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☒surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☐Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☐Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☐Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Though there is a high concentration of lithic material at this site associated with tool reduction, this site is similar to many other sites in the area. The naval stores component of the site is not considered historically significant.

Recommendations for Owner or SHPO Action

Protection of sink/cave. Possible deep archaeological deposits in cave/sink that were not investigated during Phase I CRAS.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

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ARCHAEOLOGICAL SITE FORM

Site #8 AL02912

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 315,000 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Prehistoric, likely preceramic, early to late-stage lithic reduction site. Small historic, likely late 19th-early 20th century, turpentine industry component.

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 315000 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 906 ⊙count ○estimate | Surface # 644 | Subsurface # 262

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A - Lithics
A - Forestry equipment

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Preform PPK (1), Lithic debitage: Primary (78), secondary (240), and tertiary (583) flakes; Herty cup fragments (7)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. _____ N=____ 4. _____ N=____ 7._____ N=____
2. _____ N=____ 5. _____ N=____ 8._____ N=____
3. _____ N=____ 6. _____ N=____ 9._____ N=____

ENVIRONMENT

Nearest fresh water: Type Sink Name Hog Cave Distance from site (m) _____
Natural community XERIC UPLANDS SCRUB Topography _____ Elevation: Min ____m Max ____m
Local vegetation Scrub oak, Live oak, Hickory, mixed pine
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

2) Document type Photographs Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name Val Lee
Address / Phone / E-mail Parker Road, Gainesville, Florida

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

☐Original
☒Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 AL02913
Field Date 5-22-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) Unnamed Sink **M**ultiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property **S**urvey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO **U**SGS Date 2021 **P**lat or Other Map _____
City/Town (within 3 miles) Gainesville **I**n City Limits? ☐yes ☒no ☐unknown **C**ounty Alachua
Township 10S **R**ange 18E **S**ection 24 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
Township _____ **R**ange _____ **S**ection _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ **T**ax Parcel # _____
UTM Coordinates: **Z**one ☐16 ☐17 **E**asting ☐☐☐☐☐☐ **N**orthing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ **C**oordinate System & Datum _____
Address / Vicinity / Route to:

306 meters east of Parker Road, 2.75 kilometers south of SW 24th Avenue

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
☐usually flooded
☐usually dry
☒Cave/Sink (*subterranean*)
☒terrestrial
☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☒surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☐Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☐Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☐Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Low-density lithic scatter with small historic naval stores component is common to the area and not likely to yield additional data for research.

Recommendations for Owner or SHPO Action

No further work is recommended.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

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ARCHAEOLOGICAL SITE FORM

Site #8 AL02913

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 36,000 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Prehistoric, likely preceramic, low-density lithic scatter site. Historic, likely late 19th-early 20th century, turpentine industry component.

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 36000 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 48 ⦿count ○estimate | Surface # 39 | Subsurface # 9

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A	Lithics
A	Forestry equipment

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Lithic debitage: Primary (8), secondary (24), and tertiary (12) flakes; Herty cup fragments (4)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. _____ N=_____ 4. _____ N=_____ 7._____ N=_____
2. _____ N=_____ 5. _____ N=_____ 8._____ N=_____
3. _____ N=_____ 6. _____ N=_____ 9._____ N=_____

ENVIRONMENT

Nearest fresh water: Type Sink Name Unnamed Sink Distance from site (m) 75
Natural community XERIC UPLANDS SCRUB Topography _____ Elevation: Min _____m Max _____m
Local vegetation Longleaf pine, Slash pine, Sand pine, Scrub oak, Turkey oak
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

2) Document type Photographs Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name Val Lee
Address / Phone / E-mail Parker Road, Gainesville, Florida

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

☐Original
☒Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 **AL02914**
Field Date 5-22-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) Hickory Sink — Multiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property — Survey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO — USGS Date 2021 — Plat or Other Map _____
City/Town (within 3 miles) Gainesville — In City Limits? ☐yes ☒no ☐unknown — County Alachua
Township 10S — Range 18E — Section 24 — ¼ section: ☐NW ☐SW ☐SE ☐NE — Irregular-name: _____
Township _____ — Range _____ — Section _____ — ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ — Tax Parcel # _____
UTM Coordinates: Zone ☐16 ☐17 — Easting ☐☐☐☐☐☐ — Northing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ — Coordinate System & Datum _____
Address / Vicinity / Route to:

243 meters east of Parker Road, 1.6 km south of SW 24th Avenue

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
  ☐usually flooded
  ☐usually dry
☒Cave/Sink (*subterranean*)
  ☒terrestrial
  ☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☒surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☐Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☐Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☐Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information

Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Low-density prehistoric lithic and historic naval stores industry scatter site is common to the area and not likely to yield additional data for research.

Recommendations for Owner or SHPO Action

No further work is recommended for outlying areas. Possible archaeological deposits deep in sink not investigated.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

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Phone **850.245.6440** / Fax **850.245.6439** / E-mail **SiteFile@dos.myflorida.com**

ARCHAEOLOGICAL SITE FORM

Site #8 AL02914

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 60,000 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Prehistoric, likely preceramic, low-density lithic scatter site. Small historic, likely late 19th-early 20th century, turpentine industry component.

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 60000 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 90 ⊙count ○estimate | Surface # 89 | Subsurface # 1

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A	Lithics
A	Forestry equipment

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Lithic debitage: Secondary and tertiary flakes; Herty cup fragments (6)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. _____ N=____ 4. _____ N=____ 7._____ N=____
2. _____ N=____ 5. _____ N=____ 8._____ N=____
3. _____ N=____ 6. _____ N=____ 9._____ N=____

ENVIRONMENT

Nearest fresh water: Type Sink Name Hickory Sink Distance from site (m) 10
Natural community XERIC UPLANDS SCRUB Topography _____ Elevation: Min ____m Max ____m
Local vegetation Mixed hardwoods, scrub
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name Val Lee
Address / Phone / E-mail Parker Road, Gainesville, Florida

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

☒Original
☐Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 AL07584
Field Date 5-22-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) Lonely Point **M**ultiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property **S**urvey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO **U**SGS Date 2021 **P**lat or Other Map _____
City/Town (within 3 miles) Gainesville **I**n City Limits? ☐yes ☒no ☐unknown **C**ounty Alachua
Township 10S **R**ange 18E **S**ection 24 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
Township _____ **R**ange _____ **S**ection _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ **T**ax Parcel # _____
UTM Coordinates: **Z**one ☐16 ☐17 **E**asting ☐☐☐☐☐☐ **N**orthing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ **C**oordinate System & Datum _____
Address / Vicinity / Route to:

Directly east of Parker Road, 2.19 km south of SW 24th Avenue

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
  ☐usually flooded
  ☐usually dry
☒Cave/Sink (*subterranean*)
  ☒terrestrial
  ☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☒surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☒Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☒Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☒Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Low-density prehistoric lithic and historic naval stores industry scatter site is common to the area and not likely to yield additional data for research.

Recommendations for Owner or SHPO Action

No further work is recommended.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250
Phone **850.245.6440** / Fax **850.245.6439** / E-mail **SiteFile@dos.myflorida.com**

ARCHAEOLOGICAL SITE FORM

Site #8 AL07584

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 32,000 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Prehistoric, likely preceramic, low-density lithic scatter site. Bolen Beveled, subtype 1 PPK indicates Late Paleo-Early Archaic transitional period. Historic, likely late 19th-early 20th century, turpentine industry component present.

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 32000 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 87 ⦿count ○estimate | Surface # 47 | Subsurface # 40

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A - Lithics
A - Forestry equipment

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Bolen Beveled PPK (1), Lithic debitage: Primary (5), secondary (31), and tertiary flakes (47); Herty cup fragments (3)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. Bolen Beveled PPK, subtype 1 N= 1
2. _____ N=_____
3. _____ N=_____
4. _____ N=_____
5. _____ N=_____
6. _____ N=_____
7. _____ N=_____
8. _____ N=_____
9. _____ N=_____

ENVIRONMENT

Nearest fresh water: Type Sink Name Unnamed Sink Distance from site (m) _____
Natural community XERIC UPLANDS SCRUB Topography_____ Elevation: Min _____m Max _____m
Local vegetation Mixed hardwoods, pines
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
Address / Phone / E-mail _____

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

☒Original
☐Update

ARCHAEOLOGICAL SITE FORM
FLORIDA MASTER SITE FILE
Version 5.0 3/19

Consult *Guide to Archaeological Site Form* for detailed instructions

Site #8 AL07585
Field Date 5-23-2024
Form Date 6-24-2024
Recorder # HCS-CC

Site Name(s) South Sinks **M**ultiple Listing (DHR only) _____
Project Name Phase I CRAS of the Hickory Sink Property **S**urvey # (DHR only) _____
Ownership: ☒private-profit ☐private-nonprofit ☐private-individual ☐private-nonspecific ☐city ☐county ☐state ☐federal ☐Native American ☐foreign ☐unknown

LOCATION & MAPPING

USGS 7.5 Map Name ARREDONDO **U**SGS Date 2021 **P**lat or Other Map _____
City/Town (within 3 miles) Gainesville **I**n City Limits? ☐yes ☒no ☐unknown **C**ounty Alachua
Township 10S **R**ange 18E **S**ection 25 ¼ section: ☐NW ☐SW ☐SE ☐NE Irregular-name: _____
Township _____ **R**ange _____ **S**ection _____ ¼ section: ☐NW ☐SW ☐SE ☐NE
Landgrant _____ **T**ax Parcel # _____
UTM Coordinates: **Z**one ☐16 ☐17 **E**asting ☐☐☐☐☐☐ **N**orthing ☐☐☐☐☐☐☐
Other Coordinates: X: _____ Y: _____ **C**oordinate System & Datum _____
Address / Vicinity / Route to:

1.6 km east of Parker Road, 3.65 km south of SW 24th Avenue

Name of Public Tract (e.g., park) _____

TYPE OF SITE (select all that apply)

SETTING

☒Land (*terrestrial*)
☐Lake/Pond (*lacustrine*)
☐River/Stream/Creek (*riverine*)
☐Tidal (*estuarine*)
☐Saltwater (*marine*)
☐Wetland (*palustrine*)
  ☐usually flooded
  ☐usually dry
☒Cave/Sink (*subterranean*)
  ☒terrestrial
  ☐aquatic

STRUCTURES OR FEATURES

☐log boat
☐agric/farm building
☐burial mound
☐building remains
☐cemetery/grave
☐dump/refuse
☐earthworks (historic)
☐fort
☐midden
☐mill
☐mission
☐mound, nonspecific
☐plantation
☐platform mound
☐road segment
☐shell midden
☐shell mound
☐shipwreck
☐subsurface features
☐surface scatter
☐well

FUNCTION

☐campsite
☒extractive site
☐habitation (prehistoric)
☐homestead (historic)
☐farmstead
☐village (prehistoric)
☐town (historic)
☐quarry (prehistoric)

Other Features or Functions (Choose from the list or type a response.)
1. _____ 2. _____

CULTURE PERIODS (select all that apply)

ABORIGINAL

☐Alachua
☐Archaic (nonspecific)
☐Archaic, Early
☐Archaic, Middle
☐Archaic, Late
☐Belle Glade
☐Cades Pond
☐Caloosahatchee
☐Deptford
☐Englewood
☐Fort Walton
☐Glades (nonspecific)
☐Glades I
☐Glades II
☐Glades III
☐Hickory Pond
☐Leon-Jefferson
☐Malabar I
☐Malabar II
☐Manasota
☐Mississippian
☐Mount Taylor
☐Norwood
☐Orange
☐Paleoindian
☐Pensacola
☐Perico Island
☐Safety Harbor
☐St. Augustine
☐St. Johns (nonspecific)
☐St. Johns I
☐St. Johns II
☐Santa Rosa
☐Santa Rosa-Swift Creek
☐Seminole (nonspecific)
☐Seminole: Colonization
☐Seminole: 1st War To 2nd
☐Seminole: 2nd War To 3rd
☐Seminole: 3rd War & After
☐Swift Creek (nonspecific)
☐Swift Creek, Early
☐Swift Creek, Late
☐Transitional
☐Weeden Island (nonspecific)
☐Weeden Island I
☐Weeden Island II
☐Prehistoric (nonspecific)
☒Prehistoric non-ceramic
☐Prehistoric ceramic

NON-ABORIGINAL

☐First Spanish 1513-99
☐First Spanish 1600-99
☐First Spanish 1700-1763
☐First Spanish (nonspecific)
☐British 1763-1783
☐Second Spanish 1783-1821
☐American Territorial 1821-45
☐American Civil War 1861-65
☐American 19th Century
☐American 20th Century
☒American (nonspecific)
☐African-American

Other Cultures (Choose from the list or type a response. For historic sites, give specific dates.)
1. _____ 3. _____
2. _____ 4. _____

OPINION OF RESOURCE SIGNIFICANCE

Potentially eligible individually for National Register of Historic Places? ☐yes ☒no ☐insufficient information
Potentially eligible as contributor to a National Register district? ☐yes ☒no ☐insufficient information
Explanation of Evaluation (required if evaluated; use separate sheet if needed)

Small prehistoric lithic and historic naval stores industry scatter site is common to the area and not likely to yield additional data for research.

Recommendations for Owner or SHPO Action

No further work is recommended.

DHR USE ONLY	OFFICIAL EVALUATION	DHR USE ONLY
NR List Date _____ ☐Owner Objection	SHPO – Appears to meet criteria for NR listing: ☐yes ☐no ☐insufficient info Date _____ Init._____ KEEPER – Determined eligible: ☐yes ☐no Date _____ NR Criteria for Evaluation: ☐a ☐b ☐c ☐d (see *National Register Bulletin 15*, p. 2)	

Florida Master Site File / Div. of Historical Resources / R. A. Gray Bldg / 500 S Bronough St., Tallahassee, FL 32399-0250
Phone **850.245.6440** / Fax **850.245.6439** / E-mail **SiteFile@dos.myflorida.com**

ARCHAEOLOGICAL SITE FORM

Site #8 AL07585

FIELD METHODS (select all that apply)

SITE DETECTION			SITE BOUNDARY		
☐no field check	☒exposed ground	☐screened shovel	☐bounds unknown	☐remote sensing	☐unscreened shovel
☐literature search	☐posthole tests	☒screened shovel-1/4"	☐none by recorder	☒exposed ground	☒screened shovel
☐informant report	☐auger tests	☐screened shovel-1/8"	☐literature search	☐posthole tests	☐block excavations
☐remote sensing	☐unscreened shovel	☐screened shovel-1/16"	☐informant report	☐auger tests	☐estimate or guess

Other methods; number, size, depth, pattern of units; screen size (attach site plan)

Surface inspection. Systematic .5x.5-meter shovel test pits, screened through 1/4" mesh.

SITE DESCRIPTION

Extent/Size (m^2) 5,500 Depth/stratigraphy of cultural deposit (describe below)

No discrete vertical stratification detected

Temporal Interpretation - Components (check one): ☐single component ☒multiple component ☐uncertain

Describe each occupation in plan (refer to attached large scale map) and stratigraphically. Discuss temporal and functional interpretations:

Low-density prehistoric and historic scatter: Prehistoric, likely preceramic, lithic reduction and historic, likely late 19th-early 20th century, turpentine industry

Integrity - Overall disturbance: ☐none seen ☒minor ☐substantial ☐major ☐redeposited ☐destroyed-**document!** ☐unknown

Disturbances / threats / protective measures

Timber harvest, plowing, road cuts

Surface collection: area collected 5500 m^2 # collection units_____ | Excavation: # noncontiguous blocks _____

ARTIFACTS

Total Artifacts # 8 ⦿count ○estimate | Surface # 8 | Subsurface #_____

COLLECTION SELECTIVITY

☐unknown ☒unselective (all artifacts)
☐selective (some artifacts)
☐mixed selectivity

SPATIAL CONTROL

☐uncollected ☒general (not by subarea)
☐unknown ☐controlled (by subarea)
☐variable spatial control
☐other (describe in comments below)

ARTIFACT CATEGORIES and DISPOSITIONS

A - Lithics
A - Forestry equipment
____ - _____
____ - _____
____ - _____
____ - _____
____ - _____
____ - _____

select a disposition from the list below for each artifact category selected at left

A - category always collected
S - some items in category collected
O - observed first hand, but not collected
R - collected and subsequently left at site
I - informant reported category present
U - unknown

Artifact Comments

Lithic debitage: Secondary flakes (2); Herty cup fragments (5), milk glass (1)

DIAGNOSTICS (type or mode, and frequency: e.g., *Suwanee ppk, heat-treated chert, Deptford Check-stamped, ironstone/whiteware*)

1. Milk Glass N= 1
2. _____ N=_____
3. _____ N=_____
4. _____ N=_____
5. _____ N=_____
6. _____ N=_____
7. _____ N=_____
8. _____ N=_____
9. _____ N=_____

ENVIRONMENT

Nearest fresh water: Type Sink Name_____ Distance from site (m) 90
Natural community XERIC UPLANDS SCRUB Topography_____ Elevation: Min _____m Max _____m
Local vegetation Mixed hardwoods, pines, scrub
Present land use Agriculture: timber, cattle
SCS soil series Pedro-Jonesville Soil association Arredondo-Jonesville-Lake

DOCUMENTATION

Accessible Documentation Not Filed with the Site File - including field notes, analysis notes, photos, plans and other important documents

1) Document type All materials at one location Maintaining organization Heritage Services, Inc.
Document description _____ File or accession #'s _____

2) Document type _____ Maintaining organization _____
Document description _____ File or accession #'s _____

RECORDER & INFORMANT INFORMATION

Informant Information: Name _____
Address / Phone / E-mail _____

Recorder Information: Name Christina Cole, MEERM Affiliation Heritage Services, Inc.
Address / Phone / E-mail Heritage Cultural Services, LLC; christina_hcsresearch@gmail.com

Required Attachments

❶ **PHOTOCOPY OF 7.5' USGS QUAD MAP WITH SITE BOUNDARIES MARKED *and* SITE PLAN**
Plan at 1:3,600 or larger. Show boundaries, scale, north arrow, test/collection units, landmarks and date.

Orlando [Headquarters]
3025 East South Street
Orlando, FL 32803

Cocoa
400 High Point Drive
Suite 400
Cocoa, FL 32926

Jacksonville
11235 St. Johns Industrial Pkwy N
Suite 2
Jacksonville, FL 32246

Key West
1107 Key Plaza
Suite 259
Key West, FL 33040

Lantana
445 West Lantana Road
Suite 5
Lantana, FL 33462

Tallahassee
2560-1 Barrington Circle
Tallahassee, FL 32308

Tampa
6011 Benjamin Road
Suite 101-B
Tampa, FL 33634

Denver
10701 Melody Drive
Suite 304
Northglenn, CO 80234

Raleigh
4338 Bland Road
Raleigh, NC 27609

Charlotte
5105 Monroe Road
Suite A
Charlotte, NC 28205

East Syracuse
6700 Old Collamer Road
Suite 112
East Syracuse, NY 13057

Bismarck
4501 Coleman Street
Suite 103
Bismarck, ND 58503

Austin
3801 N Capital of TX Highway
Suite E-240
Austin, TX 78746

Midland
5114 West County Road 12
Midland, TX 79706

San Antonio
7700 Broadway Street
Suite 104
San Antonio, TX 78209

Orlando [Aquatic & Land Management Operations]
3825 Rouse Road
Orlando, FL 32817

Bio-Tech Consulting

Environmental and Permitting

January 6, 2026

Maria Gutierrez Martin
University of Florida Foundation, Inc.
1938 W. University Avenue
Gainesville, Florida 32603

Proj: UF Golf – Gainesville, Alachua County, Florida
Section 024, Township 10 South, Range 18 East
(BTC File #1669-02)
Re: Environmental Assessment Report

Dear Maria:

In December 2025, Bio-Tech Consulting (BTC) conducted an Environmental Assessment (EA) of the approximately ±580-acre UF Golf Site. This site is located in the City of Gainesville/Alachua County, Florida, within Section 024, Township 10 South, Range 18 East. (**Figures 1 and 2**). This Environmental Assessment includes the following elements:

- general review of site topography;
- review of soil types mapped within the site boundaries;
- evaluation of land use types/vegetative communities present;
- delineation of any on-site wetland/surface water communities;
- field review for occurrence of protected flora and fauna; and,
- an overview of potential development constraints.

TOPOGRAPHY

Based upon a review of the USGS Topographic Map present in **(Figure 3)** (Arredondo, Florida Quadrangle), elevations on the subject property range from highs between +90 and +95 feet above the National Geodetic Vertical Datum of 1929 (NGVD) in the southeastern portion of the parcel, to lows between +60 and +75 feet NGVD in the southwestern portion of the property. In general, the property elevation slopes upward from West to East with abrupt downward slopes around sinkholes and other Karst features.

SOILS

According to the Soil Survey of Alachua County, Florida, prepared by the U.S. Department of Agriculture (USDA) and the Natural Resources Conservation Service (NRCS), seven (7) soil types occur within the subject property boundaries (**Figure 4**). These soil types include the following:

- **Candler fine sand, 0 to 5 percent slopes (#2)**
- **Arredondo fine sand, 0 to 5 percent slopes (#3)**
- **Kendrick sand, 2 to 5 percent slopes (#30)**
- **Bonneau fine sand, 2 to 5 percent slopes (#39)**
- **Pedro fine sand, 0 to 5 percent slopes (#41)**
- **Pedro-Jonesville complex, 0 to 5 percent slopes (#42)**
- **Jonesville-Cadillac-Bonneau complex, 0 to 5 percent slopes (#46)**

The following presents a brief description of each of the soil types mapped for the subject site:

Candler fine sand, 0 to 5 percent slopes (#2) is a nearly level to gently sloping, excessively drained soil is in the deep, sandy uplands. Slopes are nearly smooth to convex. Typically, the surface layer is very dark grayish brown fine sand about 6 inches thick. The underlying layers are fine sand to a depth of 82 inches or more. The upper 10 inches is pale brown, the next 12 inches is light yellowish brown, the next 29 inches is yellow, the next 13 inches is very pale brown, and the lower 12 inches is very pale brown and has thin bands of brownish yellow loamy sand lamellae. This Candler soil has low available water capacity. Permeability is rapid. Natural fertility of the soil is low. Organic matter content of the surface layer is low to very low. Surface runoff is very slow. The water table is at a depth of more than 72 inches.

Arredondo fine sand, 0 to 5 percent slopes (#3) is a nearly level to gently sloping, well-drained soil found in both small and large areas of uplands. Slopes are smooth to convex. Typically, the surface layer is dark grayish brown fine sand about 8 inches thick. The subsurface layer is fine sand to a depth of 49 inches. The available water capacity is low in the sandy surface and subsurface layers and low to medium in the loamy subsoil. Permeability is rapid in the surface and subsurface layers and moderately slow to moderate in the loamy subsoil. Natural fertility is low in the sandy surface and subsurface layers and medium in the finer textured subsoil. Organic matter content is low. The water table in this soil is at a depth of more than 72 inches. Surface runoff is slow.

Kendrick sand, 2 to 5 percent slopes (#30) is a gently sloping, well-drained soil in the gently rolling uplands. The available water capacity is low in the surface and subsurface layers, medium in the upper 5 inches of the subsoil, and medium to high below this depth. Permeability is rapid in the surface and subsurface layers. The water table is more than 72 inches below the surface. Natural vegetation consists of slash, loblolly, and longleaf pines, oak, dogwood, hickory, magnolia, and sweetgum. The understory consists of several varieties of bluestem, lopsided indiangrass, toothachegrass, hairy panicum, fringeleaf paspalum, briers, creeping beggarweed, eastern bracken, huckleberry, blueberry, greenbrier, and sedges.

Bonneau fine sand, 2 to 5 percent slopes (#39) is a gently sloping, moderately well drained soil typical of uplands. Slopes are typically slightly convex. The surface layer extends 9 inches and is a dark grey fine sand. The subsurface extends to a depth of 29 inches and is a brownish yellow fine sand. The subsoil reaches depths of 84 inches or more and consists of a yellowing brown fine sandy loam and gray mottled sandy clay loam. There is low to moderately low organic matter content in the surface layer. The water table is at a depth of 40 to 60 inches for 1 to 3 months and at a depth of 60 to 72 inches for 2 to 3 months during most years. Surface runoff is slow. Permeability is moderately rapid to rapid in the sandy surface and subsurface layers and moderately slow to very slow in the subsoil.

Pedro fine sand, 0 to 5 percent slopes (#41) is nearly level to gently sloping and is well drained in relatively small areas on the broad plains of uplands. Slopes are smooth to slightly convex. Areas are irregular in shape and range from 5 to 35 acres. Typically, the surface layer is dark gray fine sand and extends to about 5 inches. The subsurface layer extends around 7 inches and is light yellowish brown fine sand. The subsoil is strong brown sandy clay loam about 5 inches thick. Below the subsoil is soft, white limestone to a depth of 72 inches or more. Included in this soil map unit are small areas of soils similar to this Pedro soil in drainage, color, and thickness but have a sandy clay subsoil. Apopka, Candler, and Jonesville soils are included in some areas. Limestone boulders and sinkholes are common in areas of this soil, typically making up around 20 percent of mapped areas or less. The water table is more than 72 inches below the surface.

Pedro-Jonesville complex, 0 to 5 percent slopes (#42) is a complex that consists of small areas of nearly level to gently sloping, well drained Pedro and Jonesville soils that are so intermixed that they cannot be separated at the scale of mapping. Slopes are smooth to slightly convex. Pedro fine sand makes up about 40 to 55 percent of each mapped area. Typically, the soil has a dark gray fine sand surface layer about 5 inches thick. The subsurface layer is light yellowish-brown sand about 7 inches thick. The subsoil is strong brown sandy clay loam about 5 inches thick. In the Pedro soil, the available water capacity is low in the sandy surface and subsurface layers and medium in the thin, loamy subsoil. Permeability is rapid in the sandy surface and subsurface layers and moderately rapid in the loamy subsoil. Organic matter content is low, and natural fertility is low to medium. Surface runoff is slow. The water table is below a depth of 72 inches. Jonesville sand makes up about 35 to 45 percent of each mapped area. Typically, the surface layer is dark gray sand about 7 inches thick. The subsurface layer is pale brown sand to a depth of 29 inches. The subsoil extends to a depth of 33 inches. It is brownish yellow sandy clay loam. In the Jonesville soil, the available water capacity is low in the surf ace layer and very low to low in the subsurface layer. It is low in the subsoil. Permeability is rapid in the surface and subsurface layers and moderately slow in the subsoil. Organic matter content is moderately low. Natural fertility is low to medium. Surface runoff is slow. The water table is more than 72 inches below the surface.

Jonesville-Cadillac-Bonneau complex, 0 to 5 percent slopes (#46) is a complex consisting of small areas of nearly level to gently sloping, well drained Jonesville and Cadillac soils and moderately well drained Bonneau Soils. Typically, the Jonesville soil has a dark gray sand surface layer about 7 inches thick. The subsurface layer is pale brown fine sand to a depth of 29 inches. The subsoil extends to a depth of 33 inches and is brownish yellow sandy clay loam. The water table is at a depth of more than 72 inches. Typically, Cadillac fine sand is a dark gray fine sand about 7 inches thick. The subsurface layer is fine sand to a depth of 52 inches. The upper 22 inches is light yellowish brown, and the lower 33 inches is very pale brown. The subsoil extends to a depth of 76 inches. The upper 7 inches is yellowish brown fine sandy loam, and the lower 17 inches is strong brown sandy clay loam. Between a depth of 76 and 118 inches, the underlying material is clay. Typically, Bonneau fine sand is dark gray fine sand about 9 inches thick. The subsurface layer is brownish yellow fine sand to a depth of 29 inches. The subsoil is sandy clay loam that extends to a depth of 84 inches or more. The upper 9 inches is yellowish brown, and the lower 47 inches is gray and has yellowish and brownish mottles. In this Bonneau soil, the water table is about 40 to 72 inches below the surface for 1 to 3 months during most years. During dry seasons, it is more than 72 inches below the surface. Permeability is moderately rapid to rapid in the sandy surface and subsurface layers.

The Florida Association of Environmental Soil Scientists (FAESS) considers no soils types associated with this site to be hydric nor have hydric inclusions. This information can be found in the Hydric Soils of Florida Handbook, Fourth Edition (March 2007).

LAND USE TYPES/VEGETATIVE COMMUNITIES

The subject site currently supports three (3) land use types/vegetative communities within its boundaries. These areas were identified utilizing the Florida Land Use, Cover and Forms Classification System, Level III (FLUCFCS, FDOT, January 1999) (**Figure 5**). The upland land use types/vegetative communities on the site are classified as Xeric Oak (421) and Upland Scrub, Pine and Hardwoods (436), The sinkhole land use types/vegetative communities on the site are classified as Special Classifications (Sinkholes) (900). There are no wetlands on the subject site. The following provides a brief description of the land use types/vegetative communities identified on the site.

Uplands

421 Xeric Oak

Forested uplands on site are best classified as Xeric Oak (421), per the FLUCFCS. Canopy species observed in these communities include southern live oak (*Quercus virginiana*), sand live oak (*Quercus geminata*), laurel oak (*Quercus laurifolia*), turkey oak (*Quercus cerris*), longleaf pine (*Pinus palustris*), slash pine (*Pinus elliottii*), and black cherry (*Prunus serotina*), with live oaks being the dominant canopy species. Subcanopy species observed in these communities included the same species as those found in the canopy, as well as Chapman's oak *(Quercus chapmanii*), bluejack oak (*Quercus incana*), saltbush (*Baccharis halimifolia*), winged sumac (*Rhus copallina*), dwarf chestnut (*Castanea pumila*), pignut hickory (*Carya glabra*), myrtle oak (*Quercus myrtigfolia*), gum bumelia (*Sideroxylon lanuginosum*), blackjack oak (*Quercus marilandica*), and saw palmetto (*Serenoa repens*). Groundcover species in these communities include dogfennel (*Eupatorium capillifolium*), broomsedge (*Andropogon virginicus*), switchgrass (*Panicum virgatum*), blackberry (*Rubus* sp.), bracken fern (*Pteridium aquilinum*), camphorweed (*Heterotheca subaxillaris*), St. Andrew's cross (*Hypericum hypercoides*), rosette grass (*Dicanthelium* sp.), deer lichen (*Cladina* sp.), purple lovegrass (*Eragrostis spectabilis*), saw palmetto (*Serenoa repens*), coontie palm (*Zamia integrifolia*), beauty berry (*Callicarpa americana*), ragweed (*Ambrosia artemisiifolia*), and dog-tongue buckwheat (*Eriogonum tomentosum*). Vines in these communities include greenbrier vine (*Smilax* sp.) and muscadine grape vine (*Vitis rotundifolia*).

436 Upland Scrub, Pine and Hardwoods

The majority of the subject site is either open or densely scrubby xeric land that is best classified as Upland Scrub, Pine and Hardwoods (436). In these communities, canopy cover is absent to sparse and subcanopy species are dominant, particularly scrub oak species. Canopy species observed in these communities include cabbage palm (*Sabal palmetto*), longleaf pine (*Pinus*

palustris), slash pine (*Pinus elliottii*), southern live oak (*Quercus virginiana*), sand live oak (*Quercus geminata*), and turkey oak (*Quercus cerris*). Subcanopy species observed in these communities included those found in the canopy as well as Chapman's oak *(Quercus chapmanii*), bluejack oak (*Quercus incana*), saltbush (*Baccharis halimifolia*), winged sumac (*Rhus copallina*), myrtle oak (*Quercus myrtigfolia*), gum bumelia (*Sideroxylon lanuginosum*), blackjack oak (*Quercus marilandica*), saw palmetto (*Serenoa repens*), Darlington oak (Quercus hemisphaerica), and southern bayberry (Morella cerifera). Groundcover species found in these communities include dogfennel (*Eupatorium capillifolium*), bushy bluestem (*Andropogon virginicus*), switchgrass (*Panicum virgatum*), blackberry (*Rubus* sp.), bracken fern (*Pteridium aquilinum*), camphorweed (*Heterotheca subaxillaris*), St. Andrew's cross (*Hypericum hypercoides*), rosette grass (*Dicanthelium* sp.), deer lichen (*Cladina* sp.), purple lovegrass (*Eragrostis spectabilis*), saw palmetto (*Serenoa repens*), coontie palm (*Zamia integrifolia*), beauty berry (*Callicarpa americana*), ragweed (*Ambrosia artemisiifolia*), dog-tongue buckwheat (*Eriogonum tomentosum*), goldenrod (*Solidago* sp.), rustweed (*Polypremum procumbens*), Florida prickly pear (*Opuntia austrina*), runner oak (*Quercus pumila*), gopher apple (*Geobalanus oblongifolius*), ironweed (*Vernonia gigantea*), and forked bluecurls (*Trichostema dichotomum*). Vines in these communities include greenbrier vine (*Smilax* sp.) and muscadine grape vine (*Vitis rotundifolia*).

Other

900 Special Classifications – Sinkholes/Karst Features

Scattered throughout the site are eleven sinkhole features that are best classified as Special Classifications (900). These karst features contain unique vegetative communities. Canopy species found in these communities include cabbage palm (*Sabal palmetto*), water oak (*Quercus nigra*), southern live oak (*Quercus virginiana*), laurel oak (*Quercus laurifolia*), black cherry (*Prunus serotina*), and sugarberry (*Celtis laevigata*). Subcanopy species observed in these communities include those found in the canopy as well as saw palmetto (*Serenoa repens*), Darlington oak (*Quercus hemisphaerica*), bluejack oak (*Quercus incana*), eastern red cedar (*Juniperus virginiana*), viburnum (*Viburnum* sp.), Chapman's oak (*Quercus chapmanii*), red bay (*Persea borbonia*), saltbush (*Baccharis halimifolia*), and Carolina buckthorn (*Frangula caroliniana*). Groundcover species observed in these communities include bracken fern (*Pteridium aquilinum*), saw palmetto (*Serenoa repens*), beauty berry (*Callicarpa americana*), giant sword fern (*Nephrolepis biserrate*), widespread maiden fern (*Pelazoneuron kunthii*), winged sumac (*Rhus copallinum*), dwarf huckleberry (*Gaylussacia dumosa*), deerberry (*Vaccinium stamineum*), bushy bluestem (*Andropogon glomeratus*), beggarsticks (*Bidens frondosa*), sedges (*Carex* spp.), galium (*Galium* sp.), and rosette grass (*Dichanthelium* sp.). Vines found in these communities include greenbrier vine (*Smilax* sp.) and muscadine grape vine (*Vitis rotundifolia*). These features pose a risk to development.

PROTECTED SPECIES

Using methodologies outlined in the Florida's Fragile Wildlife (Wood, 2001); Measuring and Monitoring Biological Diversity Standard Methods for Mammals (Wilson, et al., 1996); and Florida Fish and Wildlife Conservation Commission's (FWC's) Gopher Tortoise Permitting Guidelines (April 2023); an assessment for listed floral and faunal species was conducted at the site in December 2025 (**Figure 6A**). This assessment included both direct observations and indirect evidence, such as tracks, burrows, tree markings and vocalizations which indicated the presence of species observed. The assessment focused on species that are listed by the FWC's Official Lists - Florida's Endangered and Threatened Species (October 2025) and listed species that have the potential to occur in Alachua County (see attached **Table 1**).

No plant species listed as "Threatened" or "Endangered" by either The Florida Department of Agriculture and Consumer Services (FDACS) or U.S. Fish and Wildlife Service (USFWS) were identified on the site during the assessments conducted. Two (2) species identified on the site is listed as commercially exploited by the FDACS. The harvesting of these species, saw palmetto (*Serenoa repens*) and coontie (*Zamia integrifolia*), for commercial gain is prohibited. The FDACS protection of listed plant species centers on preventing the illegal collection, transport and sale of the listed plants. The FDACS will issue permits for collection purposes. There are no regulations that prohibits the destruction of state-listed flora species as a result of proposed development activities.

The following is a list of those wildlife species identified on the site during the evaluation of the property:

Reptiles and Amphibians
black racer (*Coluber constrictor*)
brown anole (*Anolis sagrei*)
Eastern diamondback rattlesnake (*Crotalus adamanteus*)
gopher tortoise (*Gopherus polyphemus*)
green anole (*Anolis carolinensis*)

Birds
American crow (*Corvus brachyrhynchos*)
Black vulture (*Coragyps atratus*)
Blue jay (*Cyanocitta cristata*)
Carolina wren (*Thryothorus ludovicanus*)
Greater sandhill crane (*Antigone canadensis tabida*) or **Florida sandhill crane (Antigone canadensis pratensis)**
Mourning dove (*Zenaida macroura*)
Northern cardinal (*Cardinalis cardinalis*)
Northern mockingbird (*Mimus polyglottos*)
Wild turkey (*Meleagris gallopavo*)

Mammals
Eastern cottontail (*Sylvilagus floridanus*)
feral pig (*Sus scrofa*)
gray squirrel (*Sciurus carolinensis*)
marsh rabbit (*Sylvilagus palustris*)
nine-banded armadillo (*Dasypus novemcinctus*)
Northern American raccoon (*Procyon lotor*)
opossum (*Didelphis virginiana*)
white-tailed deer (*Odocoileus virginianus*)

Two (2) of the above wildlife species, the gopher tortoise (*Gopherus polyphemus*) and Florida sandhill crane (*Antigone canadensis pratensis*), are identified in the FWC's Official Lists - Florida's Endangered and Threatened Species (October 2025).

The following presents a brief description of each of the Threatened and Endangered wildlife species observed on the subject site:

Gopher Tortoise (*Gopherus polyphemus*)
State Listed as "Threatened" by FWC

Currently the gopher tortoise (*Gopherus polyphemus*) is classified as a "Category 2 Candidate Species" by the USFWS, and as of September 2007 is now classified as "Threatened" by FWC, and as "Threatened" by Florida Committee on Rare and Endangered Plants and Animals (FCREPA). The basis of the "Threatened" classification by the FWC for the gopher tortoise is due to habitat loss and destruction of burrows. Gopher tortoises are commonly found in areas with well-drained soils associated with the pine flatwoods, pastures and abandoned orange groves. Several other protected species known to occur in Alachua County have a possibility of occurring in this area, as they are gopher tortoise commensal species. These species include the eastern indigo snake (*Drymarchon corais couperi*), Florida mouse (*Podomys floridanus*) and the gopher frog (*Rana capito*). However, none of these species were observed during the survey conducted.

The FWC provides three (3) options for developers that have gopher tortoises on their site. These options include: 1) avoidance (i.e., maintain at least a 25-foot distance from construction activities), 2) preservation of habitat and 3) off-site relocation. Based on the expected site development plan, the likely option to addressing the on-site gopher tortoise population is off-site relocation and would require that any gopher tortoise within 25 feet of proposed construction activities be relocated off-site to an approved recipient site. Relocation will need to be permitted through FWC prior to any on-site construction activities. A formal 100% gopher tortoise survey will be required by FWC in order to secure an off-site relocation permit.

The subject site was surveyed for the existence of gopher tortoises through the use of pedestrian transects during the environmental assessment. BTC surveyed approximetly 10% of the site and found a high density of burrows throughout the site and a majority of the property was seen to be quality habitat. Thus, it is BTC's recommendation that a formal survey be conducted prior to development.

If relocation efforts cannot be completed within 90 days of a formal gopher tortoise survey, FWC requires an additional survey to be conducted.

Greater Sandhill Crane (*Antigone canadensis*) or Florida Sandhill Crane (*Antigone canadensis pratensis*)
State Listed as "Threatened" by FWC

Multiple adult cranes were observed foraging in the area, but no nests were identified within or in close proximity to the subject site. The Florida Sandhill Crane is a subspecies of Sandhill Crane that occurs exclusively and is resident to Florida (Stys 1997). Of the six (6) subspecies of Sandhill Crane, the Greater Sandhill Crane (Antigone canadensis tabida) is the only other subspecies of

Sandhill Crane that occurs regularly in Florida (Stys 1997). The Greater Sandhill crane is a winter migrant, arriving in Florida during late fall (October/November) and leaving in late February (Stys 1997). Since the two subspecies cannot be distinguished easily from one another in the field, Stys (1997) recommends conducting surveys between May and September to validate the presence of the protected subspecies. Cranes do not use the same nest each year.

The subspecies of sandhill crane observed on the site could not be determined as both the Greater Sandfill Crane and Florida Sandhill Crane subspecies could be present in December. BTC does not anticipate the need for a formal survey now or in the future due to the lack of nesting habitat on the site. However, USFWS and/or another agency make the final determination if a species-specific survey is required.

Potential Wildlife

The wildlife surveys conducted within the subject site boundaries do not preclude the potential for any listed species, currently or in the future. The following listed species were not observed on-site, but have the potential to occur.

Bald Eagle (*Haliaeetus leucocephalus*)
State protected by F.A.C. 68A-16.002 and federally protected by both the Migratory Bird Treaty Act (1918) and the Bald and Golden Eagle Protection Act (1940)

In August of 2007, the US Fish and Wildlife Service (USFWS) removed the Bald Eagle from the list of federally endangered and threatened species. Additionally, the Bald Eagle was removed from FWC's imperiled species list in April of 2008. Although the Bald Eagle is no longer protected under the Endangered Species Act, it is still protected under the Bald and Golden Eagle Protection Act, the Migratory Bird Treaty Act (16 U.S.C. 668-668d), and FWC's Bald Eagle rule (Florida Administrative Code 68A-16.002). In May of 2007, the USFWS issued the National Bald Eagle Management Guidelines. In April of 2008, the FWC adopted a new Bald Eagle Management Plan that was written to closely follow the federal guidelines. In November of 2017, the FWC issued "A Species Action Plan for the Bald Eagle" in response to the sunset of the 2008 Bald Eagle Management Plan. As provided within the above referenced Species Action Plan, the USFWS became the regulating body responsible for issuing permits for Bald Eagles.

In April of 2024, the USFWS adapted new permitting regulations for the issuance of permits for Bald Eagle Incidental Take, including Bald Eagle Disturbance Take, and Bald Eagle Nest Take under the Bald and Golden Eagle Protection Act (50 CFR Part 22). The revised regulations include a new system of General Permit Conditions for each of the above referenced permits, in addition to the Specific Permit situations the Service has authorized in the past. A USFWS Bald Eagle "Eagle Disturbance Take" is needed for any activity occurring within the 660-foot buffer zone of

the Bald Eagle nest where a project cannot fully comply with the General Permit Conditions for the Bald Eagle Disturbance Take. If the specific conditions outlined can be fully adhered to, then a General Permit can be submitted via the project's Agent's self-certification.

In addition to the on-site evaluation for listed species, BTC conducted a review of FWC's database (2015-2016 Nesting Season) and Audubon's Eagle Watch program database (2024-2025 Nesting Season) for recorded Bald Eagle nests within the surrounding 660 feet of the subject site (**Figure 6B**). This review revealed that there are no recorded Bald Eagle nests within 660 feet of the project site boundaries. Thus, no developmental constraints are expected with respect to Bald Eagle nests unless a new nest is found.

Eastern Indigo Snake (*Drymarchon couperi*)
Federally Listed as "Threatened" by USFWS

The Eastern indigo snake (*Drymarchon couperi*) is a federally threatened species. The basis for this listing was a result of dramatic population declines caused by over-collecting for the domestic and international pet trade as well as mortalities caused by rattlesnake collectors who gassed gopher tortoise burrows to collect snakes. Since its listing, habitat loss and fragmentation by residential and commercial expansion have become much more significant threats to the eastern indigo snake. This species is widely distributed throughout central and south Florida and primarily occurs in sandhill habitat in northern Florida and southern Georgia.

No evidence of Eastern indigo snakes were observed within the site during the wildlife survey conducted by BTC. Based on the field assessment, this site will impact more than 25 acres of xeric habitat. Using the USFWS's August 1, 2017 Consultation Key for the Eastern indigo snake, a key determination would result in a finding of "may affect". An FWC Conservation Permit to relocate Gopher tortoises will also contain permit conditions relating to the safety of indigo snakes and require that any encountered snakes be allowed to leave the property unharmed during the gopher tortoise relocation and during the development construction.

During the ERP, State 404 or USACE Dredge and Fill permit review process, the USFWS may determine that an Eastern indigo snake survey is required during the review of the project. The survey can be accomplished from October 1st thru April 30 for a minimum of five (5) surveys with 2 days of optimal weather (overnight low temperature above 60º F). It should also be noted that eastern indigo snake mitigation may be purchased in lieu of conducting the Eastern indigo snake survey. A FDEP 404 or USACE Permit will likely require the following of the Service's Standard Protection Measures for the Eastern indigo snake which will include, but not limited to, posting Eastern indigo snake identification signage and educational material at the site, inspecting on-site holes and other refugia, as well as stopping construction to allow any Eastern indigo snake to safely vacate the project site. In addition, a FWC Conservation Permit to relocate Gopher tortoises will

also contain permit conditions relating to the safety of indigo snakes and require that any encountered snakes be allowed to leave the property unharmed during the gopher tortoise relocation and during the development construction.

Florida Pine Snake *(Pituophis melanoleucus mugitus)*
State Listed as "Threatened" by FWC

The Florida pine snake was uplisted to Threatened by the FWC in 2016 and new rules went into effect regarding its conservation in early 2018. Florida pine snakes occupy a variety of upland habitats, but seem to prefer dry habitats with a moderate to open canopy cover and well-drained sandy soils (Franz 1992, Hipes et al. 2000, Ernst and Ernst 2003). The most common natural habitat of Florida pine snakes is sandhill, but they are found in other natural communities including: scrub, xeric hammock, scrubby flatwoods, mesic pine flatwoods, and dry prairie with dry soils, old fields, and pastures (Allen and Neill 1952, Enge 1997, Ernst and Ernst 2003, Franz 2005). More importantly, this species relies heavily on underground refugia provided by the burrows of other animals and tree stumps. The months of greatest aboveground activity, during which they are more likely to be encountered, are May, June, July and October.

While there is sufficent habitat onsite, no Florida pine snakes were observed on-site. While there are no permit constraints for this species, FWC recommends allowing encountered snakes to vacate the project site during construction and any gopher tortoise relocation effort.

USFWS CONSULTATION AREAS

The USFWS has established Consultation Areas for certain listed species (**Figure 7**). Generally, these consultation areas only become an issue if USFWS consultation is required during a state or federal permitting process, such as with U.S. Army Corps of Engineers (USACOE) or a Water Management District. Consultation Areas are typically regional in size, often spanning multiple counties where the species in question is known to exist. Consultation areas by themselves do not indicate the presence of a listed species. They only indicate an area where there is a potential for a listed species to occur and that additional review might be necessary to confirm or rule-out the presence of the species. The additional review typically includes the application of species-specific criteria to rule-out or confirm the presence of the species in question. Such criteria might consist of a simple review for critical habitat types. In other cases, the review might include the need for species-specific surveys using established methodologies that have been approved by the USFWS.

The subject site is not located within any listed consultation areas.

DEVELOPMENT CONSTRAINTS AND PERMITTING

There are no wetlands or other surface waters located within the project site. The lack of wetlands and/or surface waters will need to be confirmed by the regulatory agencies. Karst features were delineated using the top-of-bank method in accordance with local, state and federal guidelines utilizing pink "Bio-Tech Consulting" flagging tape (**Figure 8**).

Alachua County (AC)

Pursuant to Alachua County Comprehensive Plan 2002, as amended, conservation Open Space Element Policy 3.4.1, applications for land use change, zoning change, and development approval shall be required to submit an inventory of natural resource information. Please see below natural resource information to address Alachua County Environmental Resource Checklist.

Surface Waters (ponds, lakes, streams, springs, etc.)

There are no surface waters found within the project site.

Wetlands

There are no wetlands found within the project site.

Surface Water or Wetland Buffers

No buffers are necessary as there are no wetlands or surface waters onsite.

Floodplains (100-year)

The majority of the site (547± ac.) exists as FEMA Flood Hazard Zone X – Area of Minimal Flood Hazard. Scattered throughout the site are smaller areas accounting for 33± ac. that are considered FEMA Flood Hazard Zone A – 1% Annual Chance Flood Hazard. (**Figure 10**)

Special Area Study Resource Protection Areas

Alachua County Special Area Study (SAS) identifies and protects Resource Protection Areas (RPA) by analyzing natural features such as wetlands, floodplains, aquafer recharge zones, listed species habitats, etc. While UF Golf site has no wetlands within its boundaries, there are karst features, such as sinkholes that could directly connect to the aquifer. The site contains numerous gopher tortoise burrows which would be an attribute to listed species habitat. The site is also located within Hickory Sink Strategic ecosystem (see below for more information). Alachua

county will require ground truthing to determine the extent of the protection areas and whether further buffers will be required on site.

Strategic Ecosystem

The entirety of the property site resides in the Hickory Sink Strategic Ecosystem, as found on the KBN/Golder Ecological Inventory Map **(Figure 11).** Alachua county requires that up to 50% of onsite upland habitat within the Strategic Ecosystem be protected by encumbrance in a Conservation Management Area. (Article V Ch. 406). These map units were originally identified in the KBN/Golder Associates Report, which is part of an Alachua County Ecological Inventory Project in 1996. The KBN/Golder Report ranks this specific Strategic ecosystem as low to below average in priority, due to its lack of connection to existing conservation areas. The report does not recommend the property to be protected under conservation, but rather focus on the karst features within the property.

Significant Habitat

The Xeric Oak and Upland Scrub, Pine and Hardwoods communities that make up the site, Pursuant to the Article 3, Chapter 406, all developments shall protect significant plant and wildlife habitat that occurs on-site, and up to 25% of the upland portion of the project area may be required to be set aside. The areas designated as significant geologic features may be counted toward the 50% onsite upland habitat protection.

While these upland communities onsite can be listed as significant per the county, observations onsite indicate that these communities may be low quality and show poor vegetative value. While gopher tortoises inhabit the site, they can be relocated to recipient sites that hold greater long-term value. Therefore, it is BTC opinion that the lowest protection percentage may be warranted. Alachua County will review the appropriate digital data sources to determine if any portions of the proposed development are likely to affect significant habitat (Article III Ch. 406). If county review indicates said likelihood, the requirements of Article IV Ch. 406 will apply.

City of Gainesville or Alachua County will require Tree mitigation within all upland communities being developed.

Listed Species/Listed Species Habitats

No flora species listed as FNAI S1, S2, S3, nor any listed as state or federally threatened were identified on the subject site. Two (2) species identified on the site is listed as commercially exploited by the FDACS. The harvesting of these species, saw palmetto (*Serenoa repens*) and

coontie (*Zamia integrifolia*), for commercial gain is prohibited. There are no regulations that prohibit the removal of state-listed flora species as a result of proposed development activities.

Two (2) wildlife species, the gopher tortoise (*Gopherus polyphemus*) and Florida sandhill crane (*Antigone canadensis pratensis*), were seen on property and are identified in the FWC's Official Lists - Florida's Endangered and Threatened Species (October 2025). Refer to "Protected Species" section of this document for more information (**pages 7-13**).

Recreation/Conservation/Preservation Lands

Review of the appropriate county and state databases indicates the subject site does not reside in any recreation, conservation, or preservation lands.

Significant Geologic Features

There are eleven (11) significant geologic features identified on the property site. There is a distribution of sinkholes that are and that are not connected to the Floridan aquifer. The sinkholes connected to the Floridan aquifer will need a protective buffer from development of 150 feet on average, with a minimum distance from the feature's edge of 100 feet. For those not connected to the aquifer, a buffer of 75 feet on average is required, with a minimum distance from the feature's edge of 50 feet. (Article XVI Ch. 406). The figure provided by BTC portrays the minimum buffer distance for each feature type (**Figure 8**).

All but one significant geological feature was delineated using the top-of-bank method. Feature 11 (**Figure 8**) is too small a feature for multiple GPS points, so a single GPS point was taken and given a radius of 2 feet to account for this feature's area on the provided figure.

High Aquifer Recharge Areas

Per Alachua County's Floridan Aquifer High Recharge Area map, the entirety of the subject site resides in a High Vulnerability area. Thus, the contents of Article VIII Ch. 406 will apply. Where avoidance is not feasible, strategies and designs that minimize the impact of development shall be implemented. Said mitigation may include design techniques, location requirements, and additional buffering requirements or other site design standards (Article VII, Sec. 406.59.2)

Wellfield Protection Areas

The property site does not reside in the Murphree Wellfield Protection Zones, thus BTC does not anticipate the need for additional permitting regarding these zones.

Wells

No existing wells were identified on the property site. Thus, BTC does not anticipate the need for additional permitting regarding Article XI.

Soils

Information regarding the location and classification of Alachua County soils on the property site is located on (**pages 2-4**) of this document**.**

Mineral Resource Areas

The subject site has no prior history of use for mining or excavation, per BTC's review of relevant digital databases. All proposed excavation and/or fill operations for development must be pursuant to Article XXIV Ch. 404**.**

Topography/Steep Slopes.

Information regarding site topography is found on (**page 1**) of this document.

Historical and Paleontological Resources

BTC found no evidence of historical or paleontological resources on the property site during the assessment. However, during permitting Alachua County and or SJRWMD may require a Cultural Resource Assessment Survey (CRAS) to be completed on the subject property.

Hazardous Materials Storage Facilities

Per BTC's review of the relevant digital databases, the property site has no history of hazardous materials storage facilities on site. However, Alachua County may require a Phase 1 Environmental Site Assessment (ESA) during permitting to confirm.

Contamination

BTC found no evidence of soil, surface water, or ground water contamination on site during the assessment. However, Alachua County may require a Phase 1 ESA during permitting to confirm.

St. Johns River Water Management District (SJRWMD)

An Environmental Resource Permit (ERP) will be required through the St. Johns River Water Management District (SJRWMD) to authorize construction and operation of a stormwater management system for the site in association with a proposed project. This includes new activities in uplands that generate stormwater runoff from upland construction. Coordination with the Division of Historical Resources (DHR) and the FFWCC will be necessary as part of the ERP process. Since the subject site does not contain any wetlands within its boundaries, no wetland permitting through SJRWMD is required.

US Army Corps of Engineers (USACOE)

On February 15, 2024, the U.S. District Court in Washington DC issued a "Memorandum Opinion" regarding the case of Center for Biological Diversity v. United States Environmental Protection Agency (EPA), State of Florida, et al. This ruling immediately returned the Federal Review of Section 404 of the Clean Water Act back to the USACE within the State of Florida and vacating the Florida State 404 program. Section 404 of the Clean Water Act (CWA) requires that federal authorization be obtained for all activities that propose the placement of dredged or fill material in "Waters of the United States" (WOTUS). The regulatory program established by CWA Section 404 is jointly implemented by the US Environmental Protection Agency (USEPA) and the USACE.

As there are no wetlands within the project site, no permitting will be required through USACOE prior to site development.

The environmental limitations described in this document are based on observations and technical information available on the date of the on-site evaluation. This report is for general planning purposes only. The limits of any on-site wetlands/surface waters can only be determined and verified through field delineation and/or on-site review by the pertinent regulatory agencies. The wildlife surveys conducted within the subject property boundaries do not preclude the potential for any listed species, as noted on Table 1 (attached), currently or in the future.

Should you have any questions or require any additional information, please do not hesitate to contact our office at (407) 894-5969. Thank you.

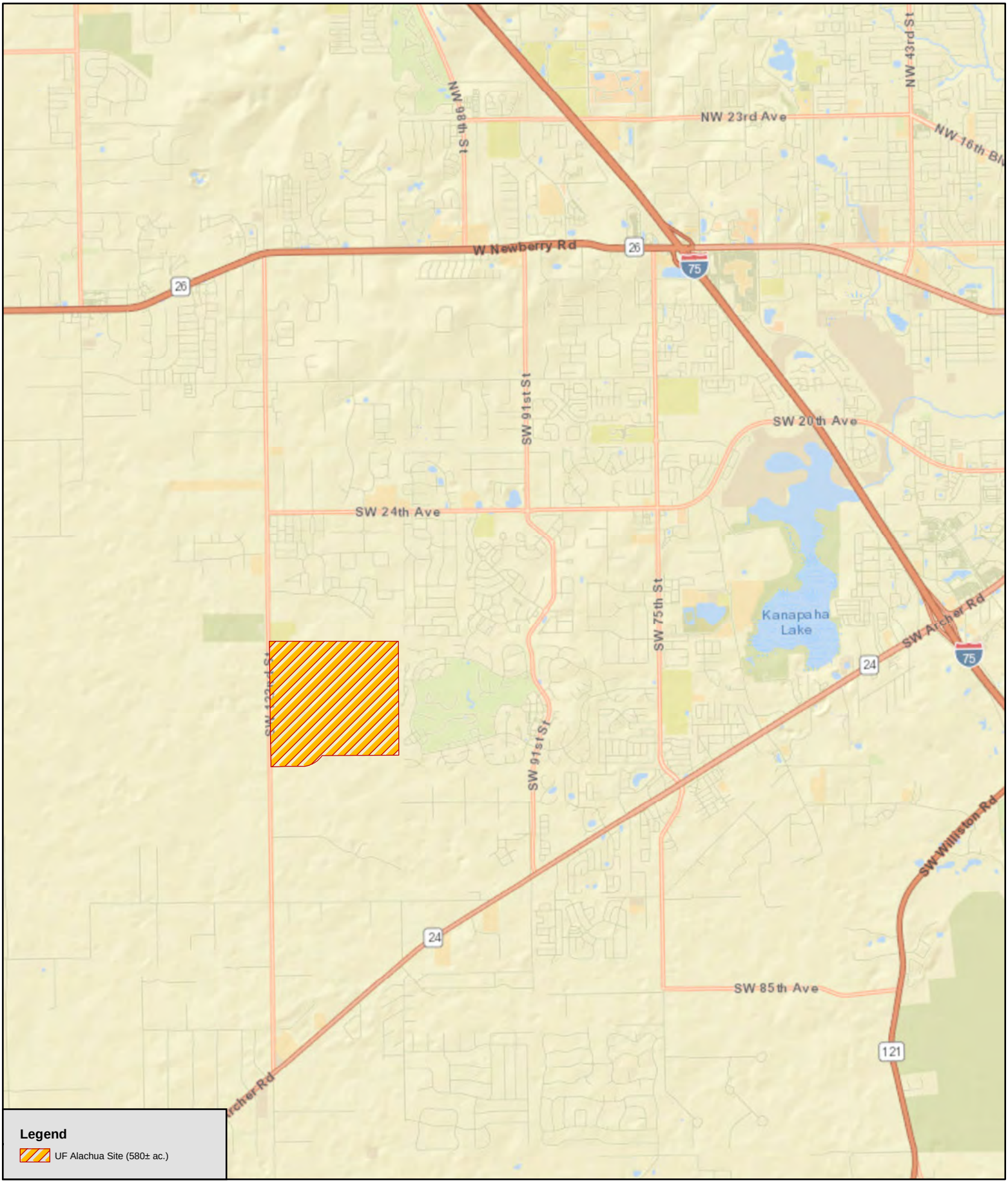
Regards,

Hunter Fishback

Hunter Fishback
Environmental Scientist I

Daniel Corkum
Environmental Scientist IV

Attachments:
Figure 1 – Location Map
Figure 2 – Aerial Map
Figure 3 – USGS Topographic Map
Figure 4 – SSURGO Soils Map
Figure 5 – FLUCFCS Map
Figure 6A – Wildlife Survey Map
Figure 6 – Wildlife Proximity Map
Figure 7 – USFWS Consultation Areas Map
Figure 8 – Significant Geologic Features Map
Figure 9 – Basin Map
Figure 10 – FEMA 100-Year Floodplain Map
Figure 11 – Strategic Ecosystems Map
Table 1 – Wildlife Table - Alachua County, Florida



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UF Alachua Site
Alachua County, Florida
Figure 1
Location Map

N
W E
S

5,100
Feet

Project #: 1669-02
Produced By: HHF
Date: 12/15/2025

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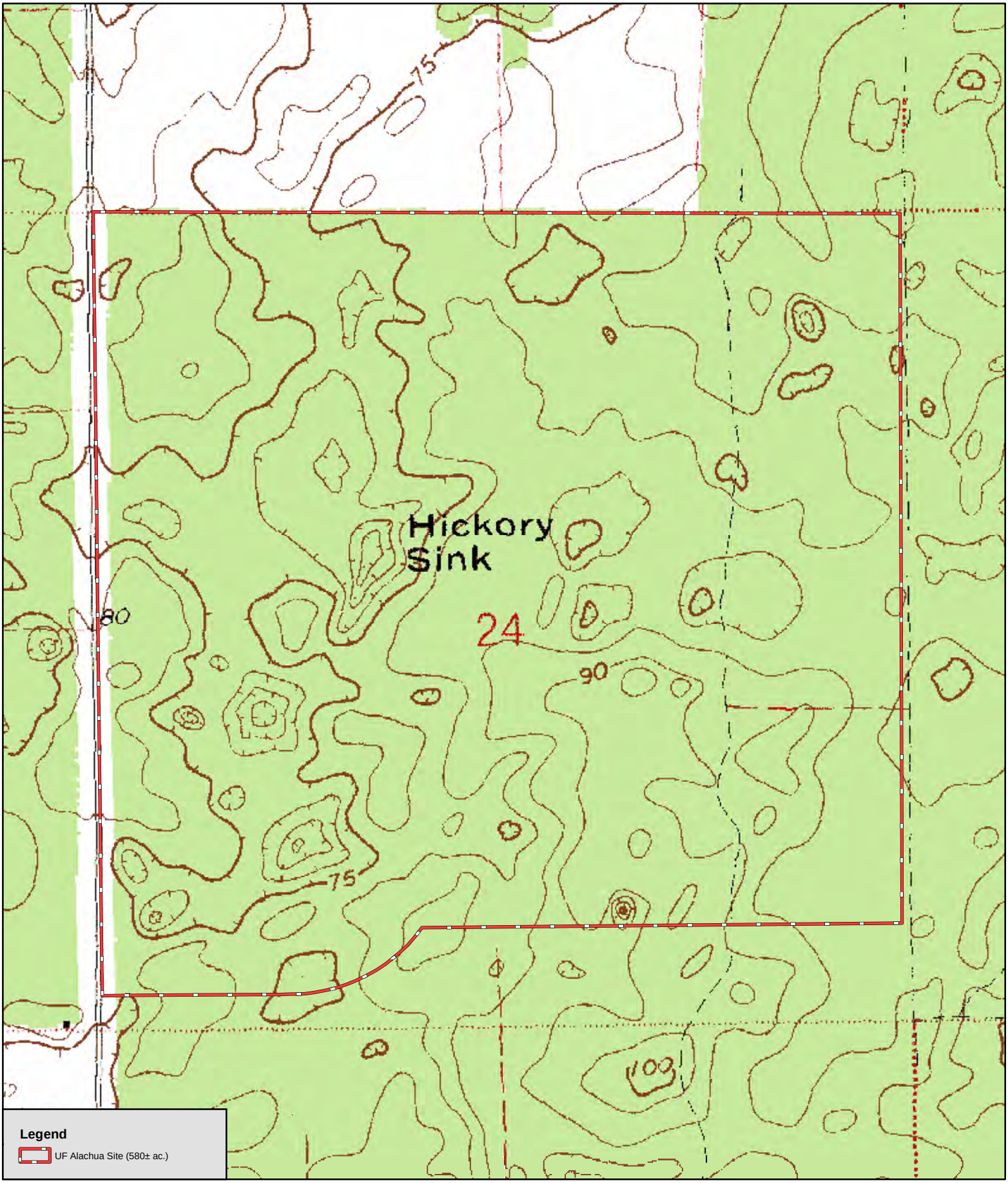
UF Alachua Site
Alachua County, Florida
Figure 2
Aerial Map

N
W E
S

820
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/15/2025



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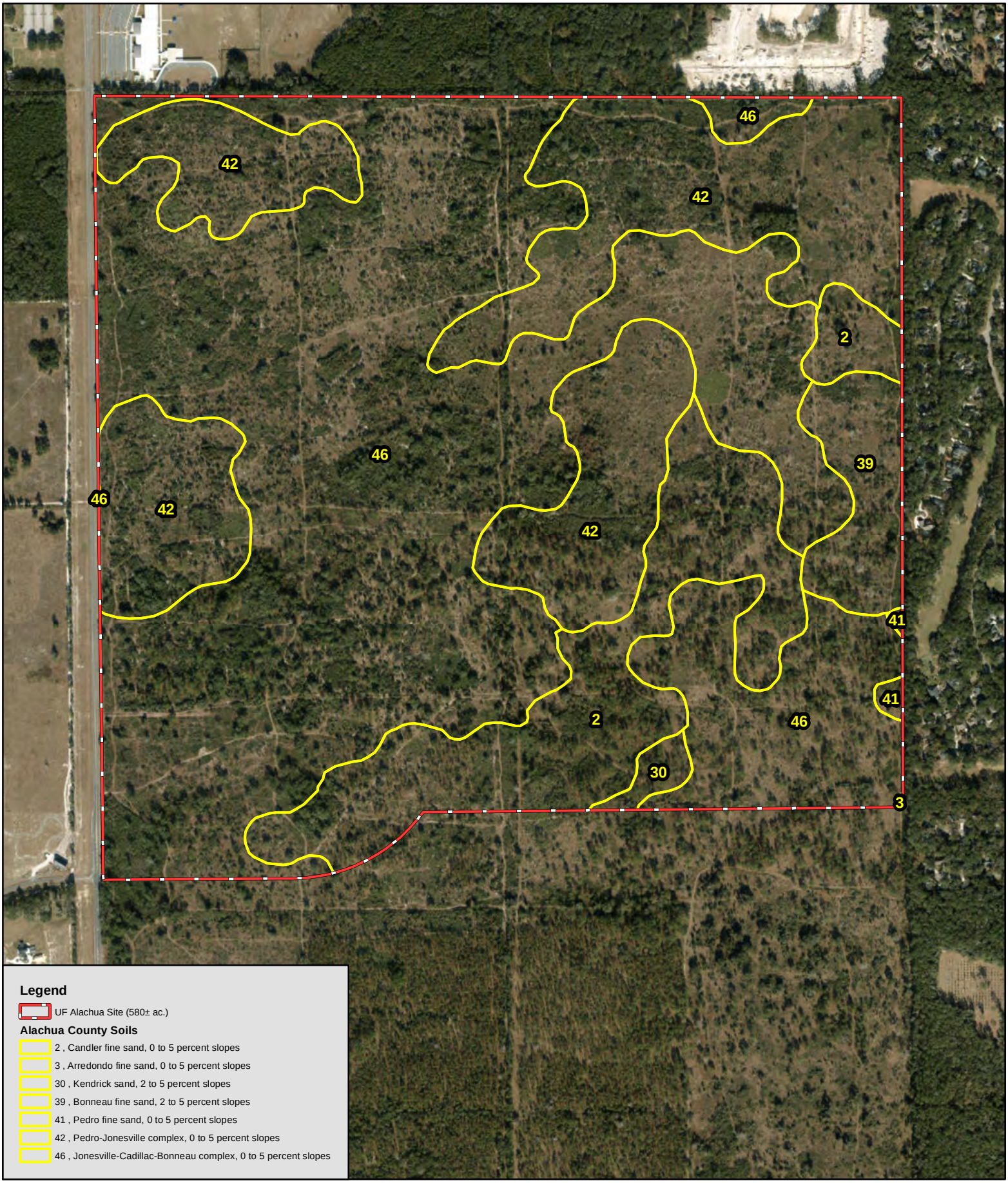
UF Alachua Site
Alachua County, Florida
Figure 3
USGS TopographicMap

N
W E
S

820
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/15/2025



Legend

UF Alachua Site (580± ac.)

Alachua County Soils

- 2 , Candler fine sand, 0 to 5 percent slopes
- 3 , Arredondo fine sand, 0 to 5 percent slopes
- 30 , Kendrick sand, 2 to 5 percent slopes
- 39 , Bonneau fine sand, 2 to 5 percent slopes
- 41 , Pedro fine sand, 0 to 5 percent slopes
- 42 , Pedro-Jonesville complex, 0 to 5 percent slopes
- 46 , Jonesville-Cadillac-Bonneau complex, 0 to 5 percent slopes

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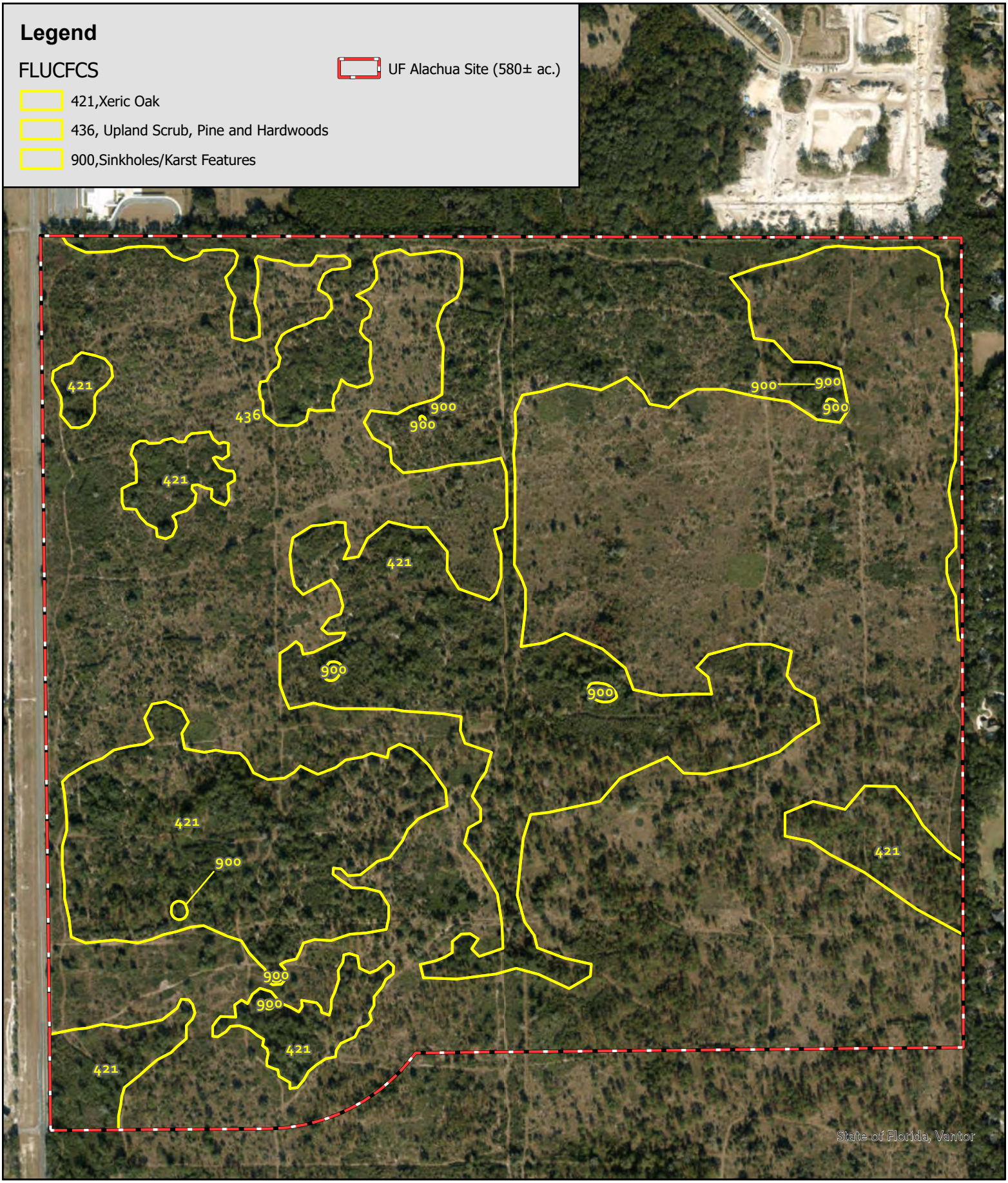
UF Alachua Site
Alachua County, Florida
Figure 4
SSURGO Soils Map

N W E S

820 Feet

Project #: 1659-02
Produced By: HHF
Date: 12/15/2025



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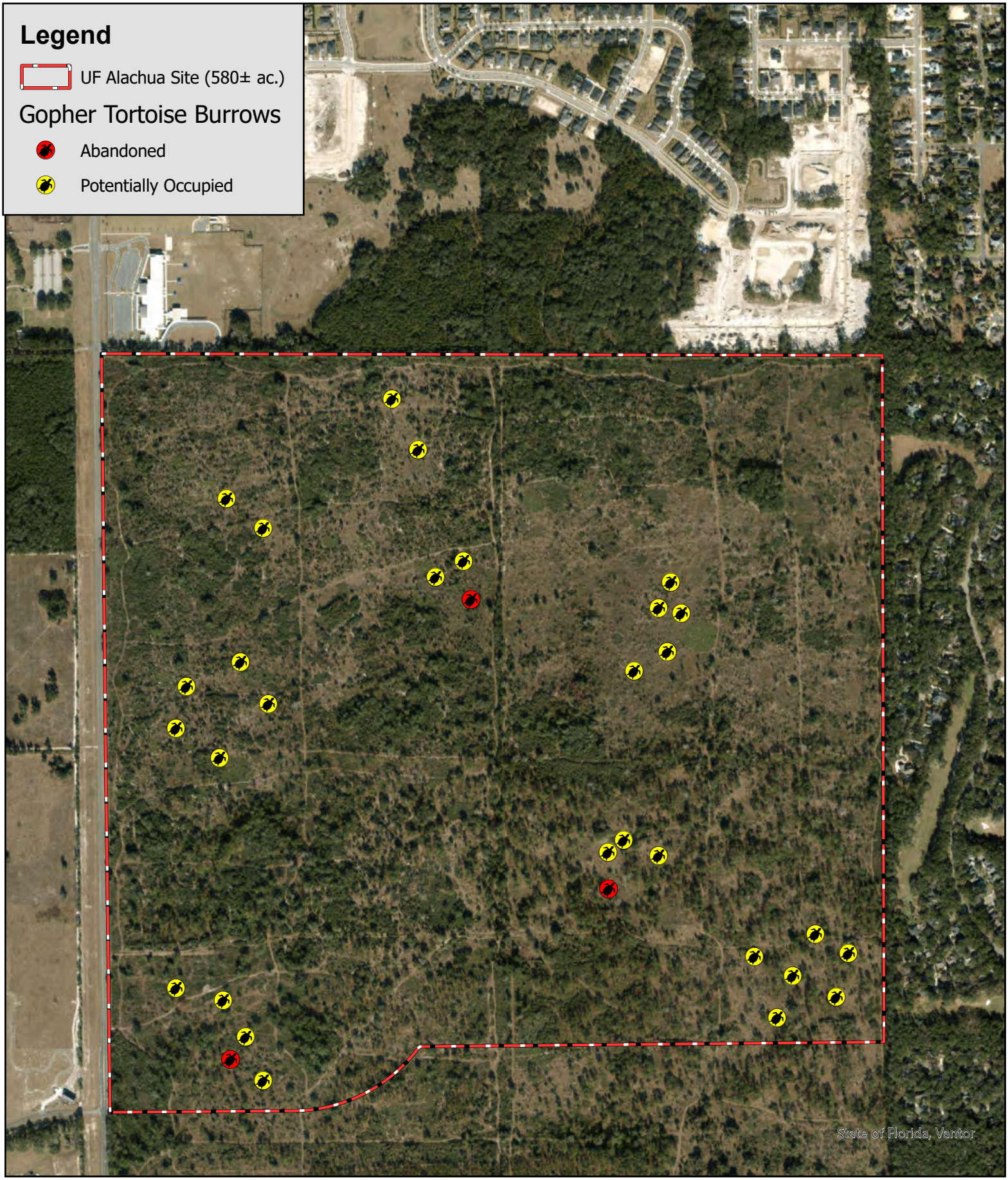
UF Alachua Site
Alachua County, Florida
Figure 5
FLUCFCS Map

N
W E
S

780
Feet

Project #:1659-02
Produced By: HHF
Date: 12/30/2025



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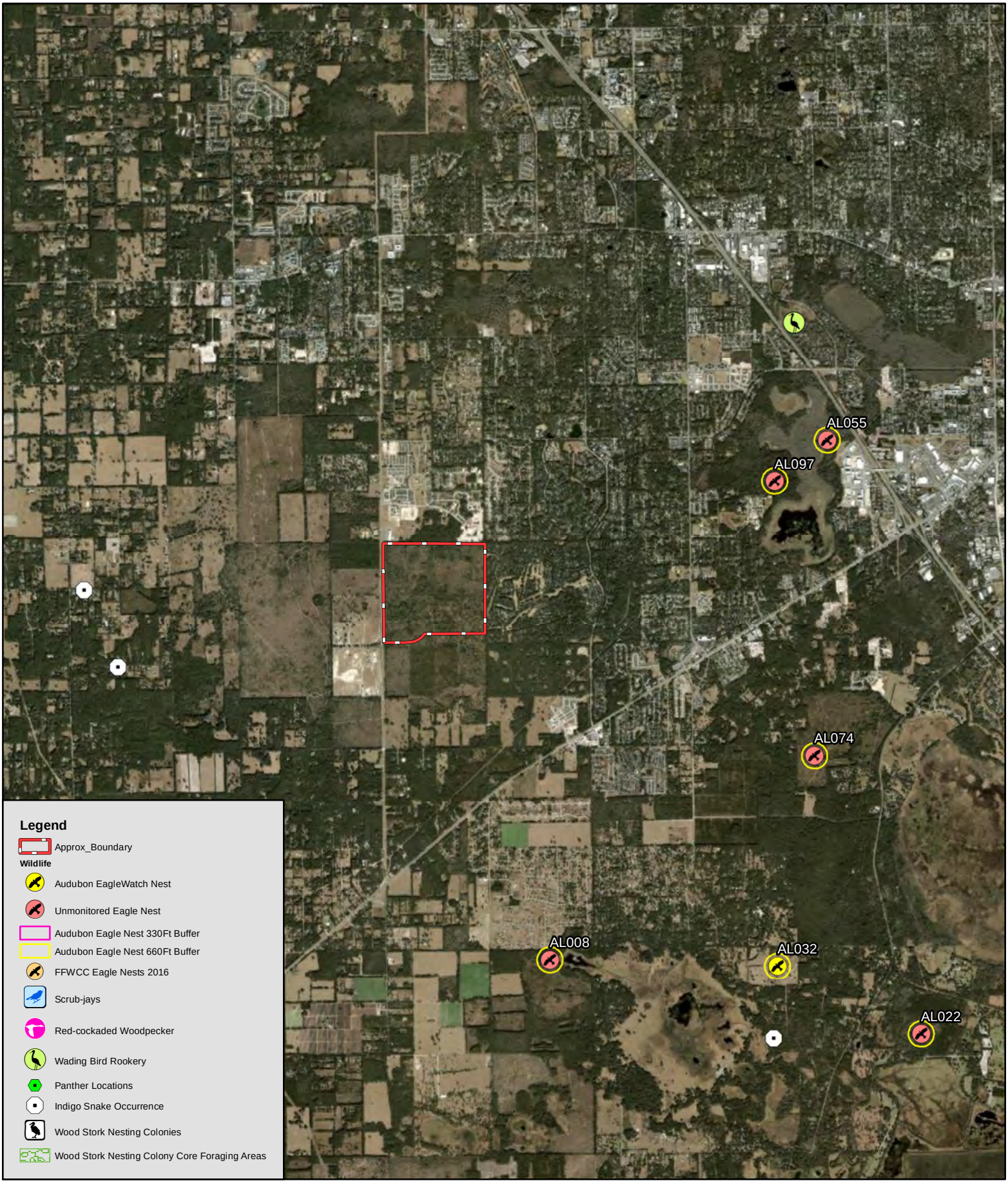
UF Alachua Site
Alachua County, Florida
Figure 6A
Wildlife Survey Map

N
W E
S

920
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/31/2025



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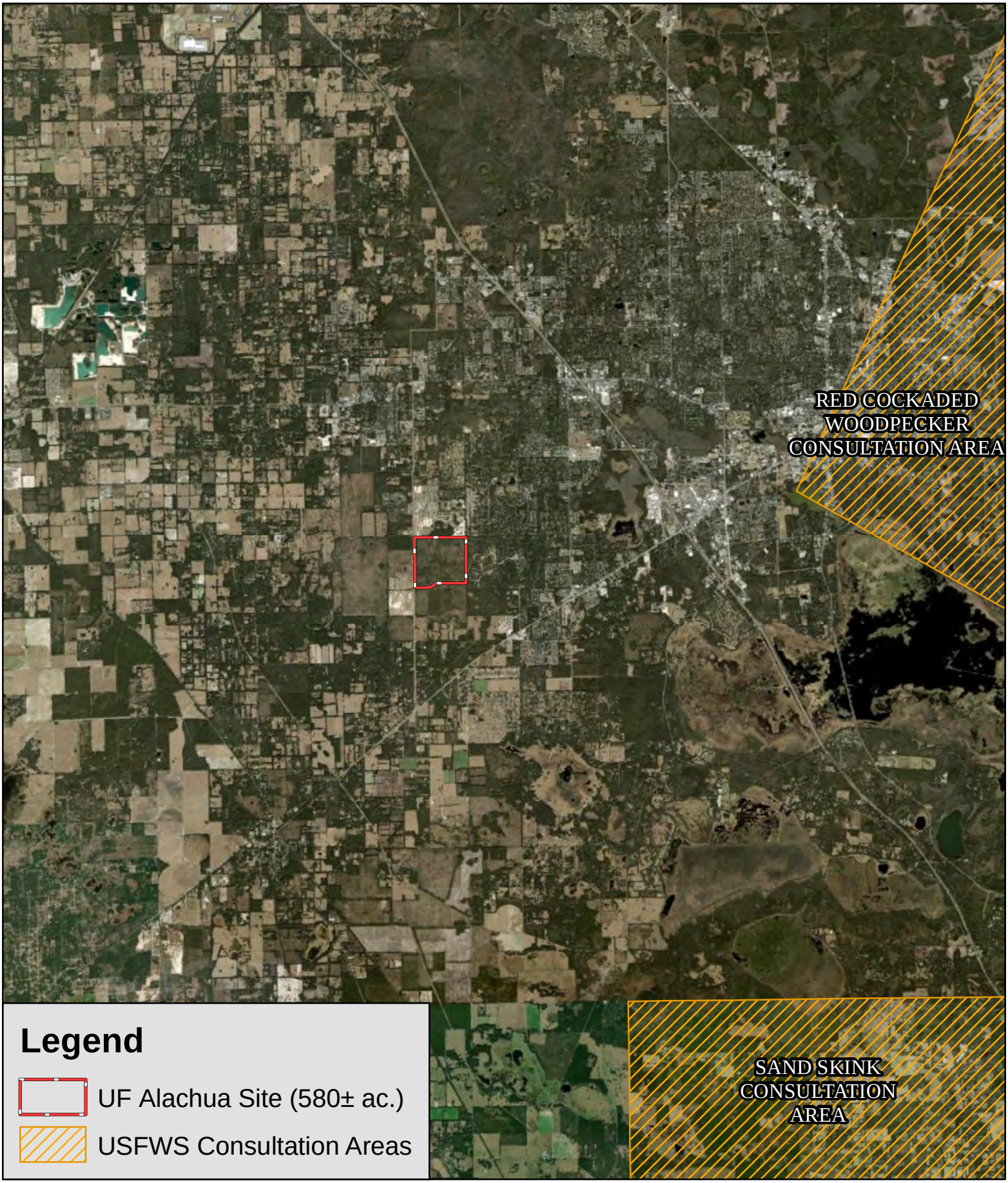
UF Alachua Site
Alachua County, Florida
Figure 6B
Wildlife Proximity Map

N
W E
S

6,500
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/15/2025



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UF Alachua Site
Alachua County, Florida
Figure 7
USFWS Consultation Areas

N
W E
S

12,500
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/15/2025

Legend

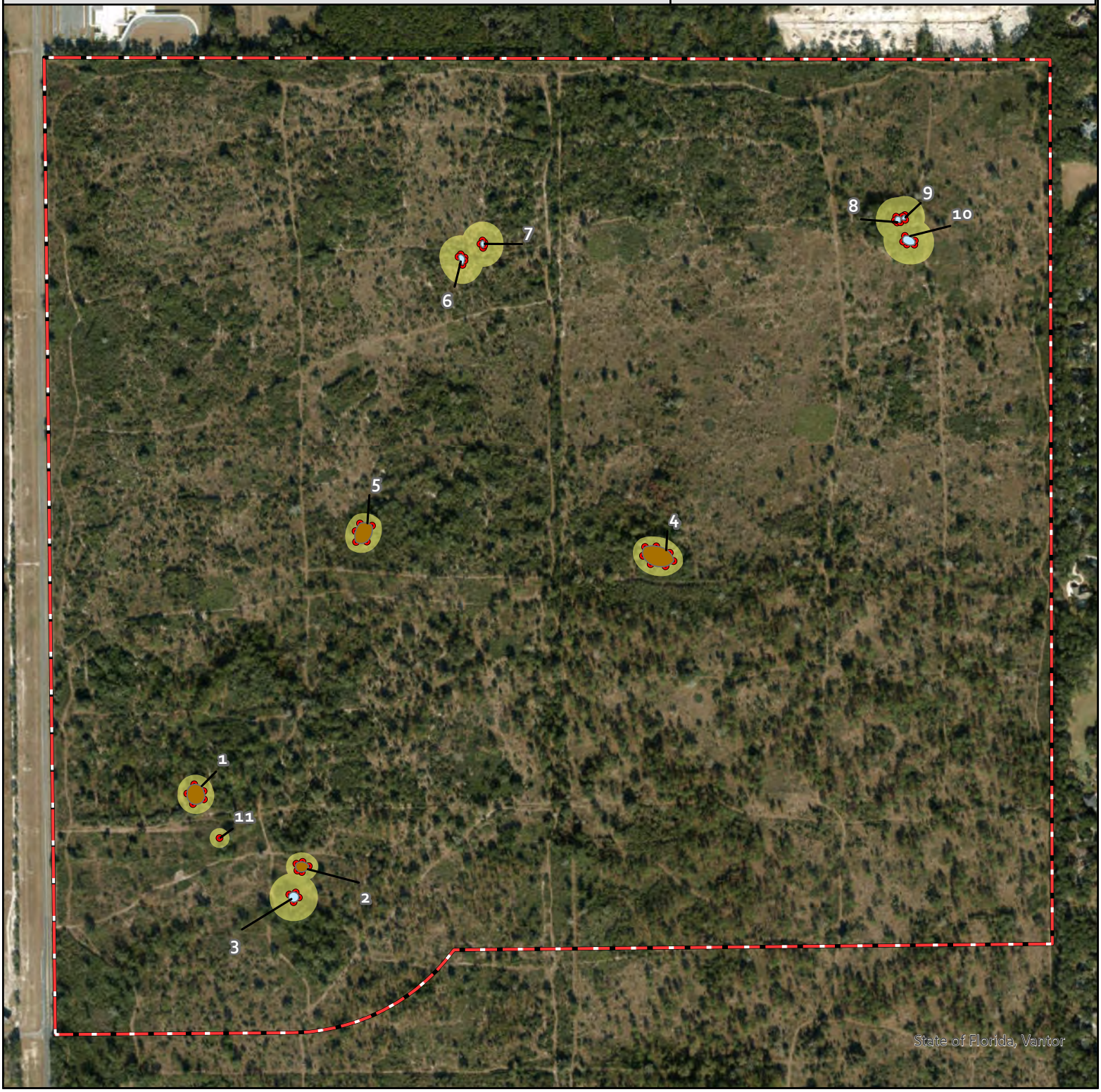
- TOB Points
- UF Alachua Site (580± ac.)

Significant Geologic Features (SGF) Class

- Sinkhole (50 ft. buffer)
- Sinkhole - Floridan Aquifer Connected (100 ft. buffer)
- SGF Buffers

Total SGF Area: 0.91± ac.
Total Buffer Area: 6.84± ac.
Total SGF and buffer area: 7.75± ac.

Bufers were created using the minimum requirement for each feature, pursuant to Alachua Municode.



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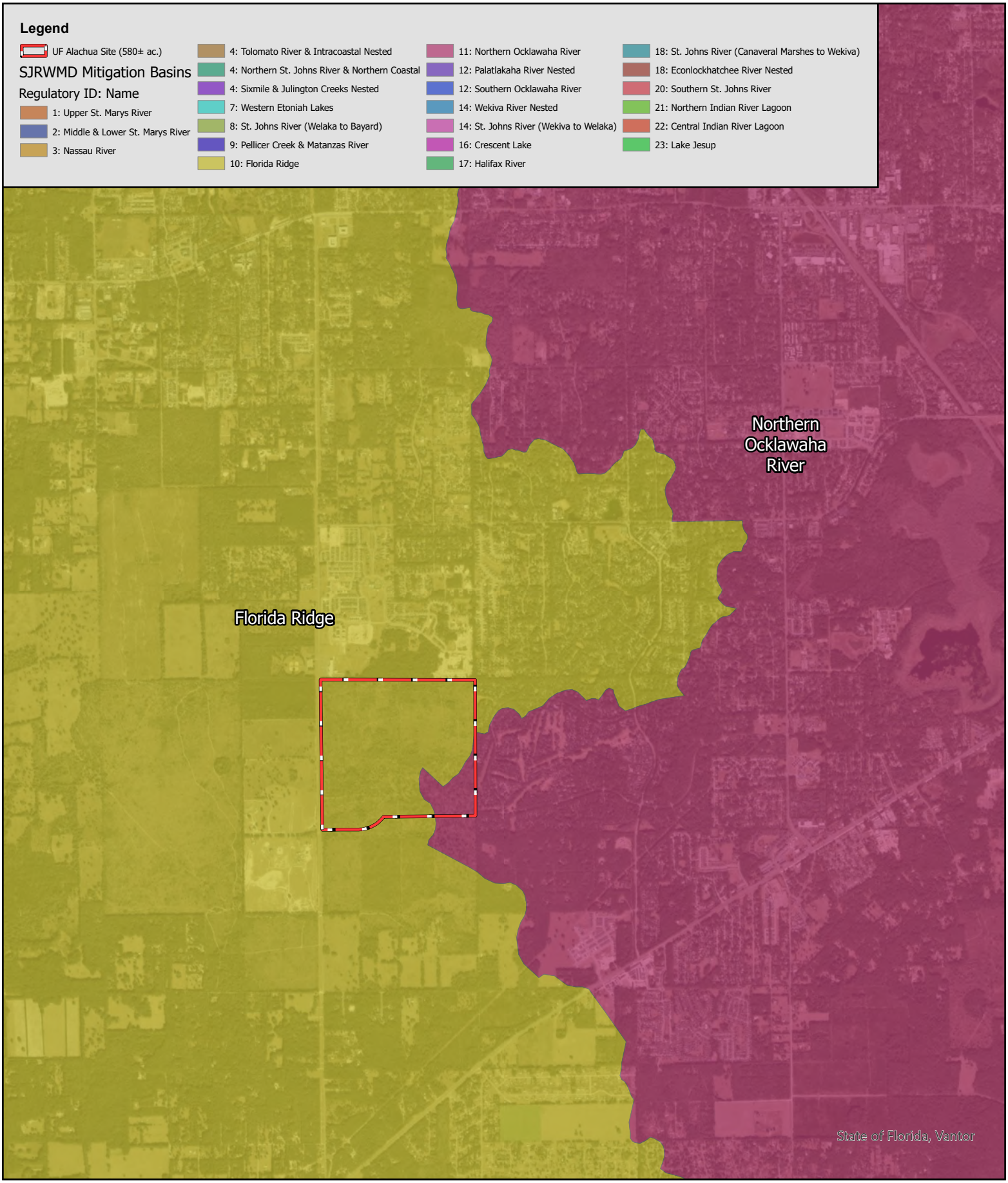
UF Alachua Site
Alachua County, Florida
Figure 8
Significant Geologic Features Map

N
W E
S

780
Feet

Project #:1659-02
Produced By: HHF
Date: 12/30/2025



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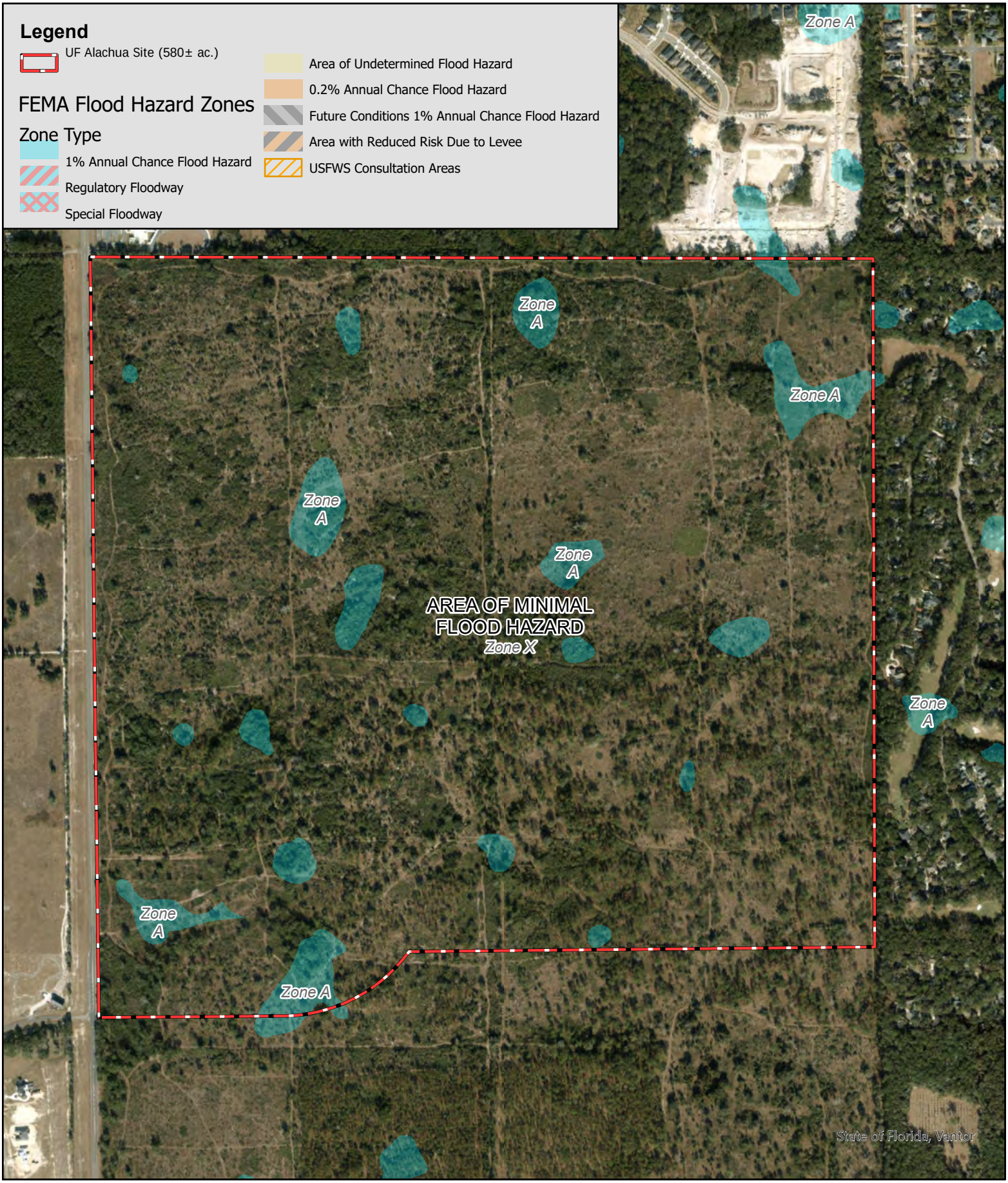
UF Alachua Site
Alachua County, Florida
Figure 9
SJRWMD Basins Map

N
W E
S

4,000
Feet

Project #: 1659-02
Produced By: HHF
Date: 12/30/2025



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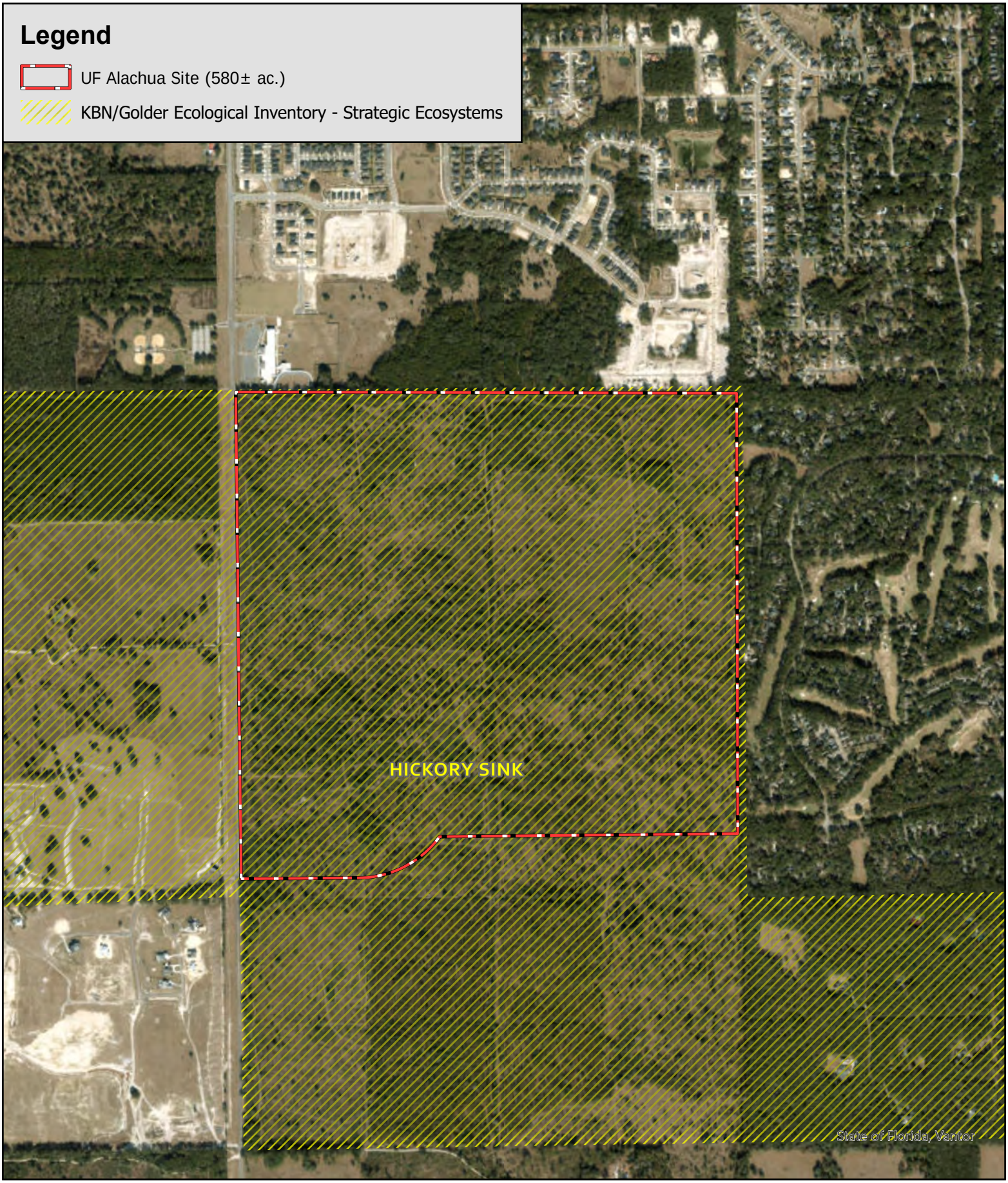
UF Alachua Site
Alachua County, Florida
Figure 10
FEMA Flood Hazard Zones

N
W E
S

920
Feet

Project #:1659-02
Produced By: HHF
Date: 12/29/2025



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UF Alachua Site
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Figure 11
Strategic Ecosystems Map

N
W E
S

1,000
Feet

Project #:1659-02
Produced By: HHF
Date: 12/29/2025

Audubon Florida EagleWatch Public Nest Map

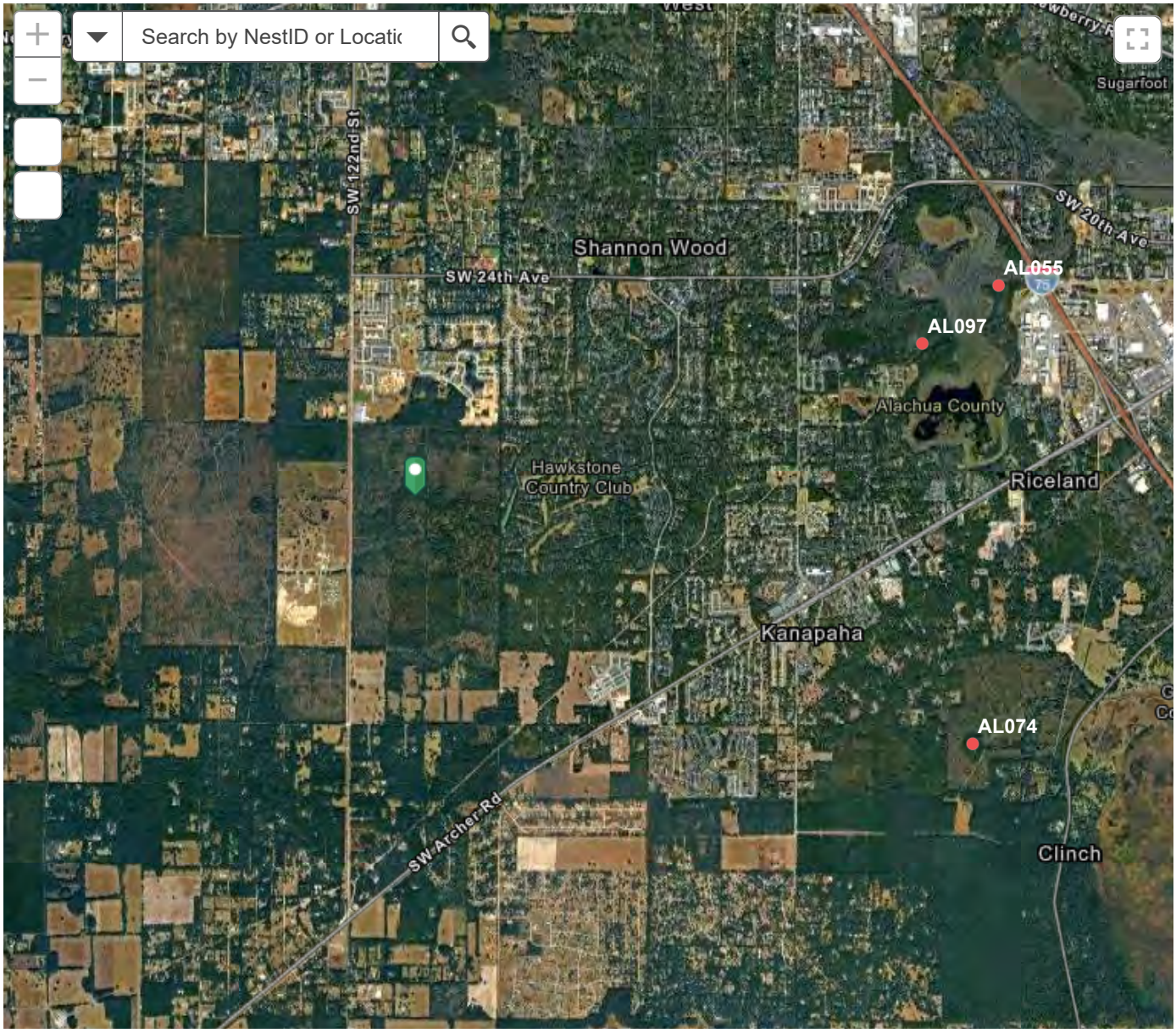

Table 1:			
Potentially Occurring Listed Wildlife and Plant Species in Alachua County (as of April 2024)			
Scientific Name	**Common Name**	**Federal Status**	**State Status**
FISHES			
Acantharchus pomotis	Mud Sunfish		N
Acipenser oxyrinchus desotoi	Gulf Sturgeon	T	FT
Alosa alabamae	Alabama Shad		N
Ameiurus serracanthus	Spotted Bullhead		N
Enneacanthus chaetodon	Blackbanded Sunfish		N
Micropterus notius	Suwannee Bass		N
Umbra pygmaea	Eastern Mudminnow		N
AMPHIBIANS			
Ambystoma tigrinum	Eastern Tiger Salamander		N
Lithobates capito	Gopher Frog	UR	N
Notophthalmus perstriatus	Striped Newt		ST
REPTILES			
Alligator mississippiensis	American Alligator	SAT	FT(S/A)
Clemmys guttata	Spotted Turtle	UR	N
Crotalus adamanteus	Eastern Diamondback Rattlesnake	UR	N
Crotalus horridus	Timber Rattlesnake		N
Drymarchon couperi	Eastern Indigo Snake	T	FT
Gopherus polyphemus	Gopher Tortoise		ST
Heterodon simus	Southern Hognose Snake		N
Lampropeltis extenuata	Short-tailed Snake	PT	ST
Lampropeltis floridana	Florida Kingsnake		N
Lampropeltis getula	Eastern Kingsnake		N
Macrochelys suwanniensis	Suwannee Alligator Snapping Turtle	PT	ST
Pituophis melanoleucus	Pine Snake	PS	ST
Pseudemys concinna suwanniensis	Suwannee Cooter		N
BIRDS			
Antigone canadensis pratensis	Florida Sandhill Crane		ST
Aphelocoma coerulescens	Florida Scrub-Jay	T	FT
Athene cunicularia floridana	Florida Burrowing Owl		ST
Dryobates villosus	Hairy Woodpecker		N
Egretta caerulea	Little Blue Heron		ST
Egretta thula	Snowy Egret		N
Egretta tricolor	Tricolored Heron		ST
Elanoides forficatus	Swallow-tailed Kite		N
Eudocimus albus	White Ibis		N
Falco sparverius paulus	Southeastern American Kestrel		ST
Haliaeetus leucocephalus	Bald Eagle		N
Laterallus jamaicensis	Black Rail	T	N
Mycteria americana	Wood Stork	T, PDL	FT
Nyctanassa violacea	Yellow-crowned Night-heron		N
Nycticorax nycticorax	Black-crowned Night-heron		N
Pandion haliaetus	Osprey		N
Peucaea aestivalis	Bachman's Sparrow		N
Plegadis falcinellus	Glossy Ibis		N
Rostrhamus sociabilis	Snail Kite	E	FE
MAMMALS			
Eptesicus fuscus	Big Brown Bat		N
Mustela frenata olivacea	Southeastern Weasel		N

Myotis austroriparius	Southeastern Myotis		N
Neofiber alleni	Round-tailed Muskrat		N
Podomys floridanus	Florida Mouse		N
Sciurus niger niger	Southeastern Fox Squirrel		N
Ursus americanus floridanus	Florida Black Bear		N
PLANTS AND LICHENS			
Adiantum tenerum	brittle maidenhair fern		E
Agrimonia incisa	incised groove-bur		T
Andropogon arctatus	pinewoods bluestem		T
Asplenium curtissii	Curtiss' spleenwort		N
Asplenium heteroresiliens	Morzenti's spleenwort		N
Asplenium monanthes	single-sorus spleenwort		E
Asplenium plenum	ruffled spleenwort		N
Asplenium pumilum	dwarf spleenwort		E
Asplenium verecundum	modest spleenwort		E
Astragalus obcordatus	Florida milkvetch		N
Blechnum appendiculatum	hammock fern		E
Brickellia cordifolia	Flyr's brickell-bush		E
Callirhoe papaver	poppy mallow		E
Calopogon multiflorus	many-flowered grass-pink		T
Calycanthus floridus	sweet-shrub		E
Centrosema arenicola	sand butterfly pea		E
Clinopodium ashei	Ashe's savory		T
Ctenium floridanum	Florida toothache grass		E
Digitaria gracillima	longleaf fingergrass		N
Forestiera godfreyi	Godfrey's swampprivet		E
Goniopteris reptans	creeping star-hair fern		E
Gymnopogon chapmanianus	Chapman's skeletongrass		N
Hexastylis arifolia	little brown jug		T
Litsea aestivalis	pondspice		E
Malaxis unifolia	green adder's-mouth orchid		E
Matelea floridana	Florida spiny-pod		E
Mnesithea tuberculosa	Piedmont jointgrass		T
Monotropa hypopithys	pinesap		E
Myriopteris microphylla	southern lip fern		E
Najas filifolia	Narrowleaf Naiad	UR	T
Orbexilum virgatum	pineland scurfpea		E
Pecluma dispersa	widespread polypody		E
Pecluma plumula	plume polypody		E
Persicaria meisneriana var. beyrichiana	branched tearthumb		E
Pilea fontana	lesser clearweed		N
Pinckneya bracteata	fever tree		T
Pycnanthemum floridanum	Florida mountain-mint		T
Quercus durandii var. durandii	bastard oak		N
Salix floridana	Florida willow	UR	E
Salvia chapmanii	nettle-leaved sage		E
Schoenolirion croceum	yellow sunnybell		E
Sideroxylon alachuense	silver buckthorn		E
Sideroxylon lycioides	buckthorn		E
Spiranthes brevilabris	small ladies'-tresses		E
Spiranthes floridana	Florida ladies'-tresses		N
Stylisma abdita	scrub stylisma		E

Thalictrum amphibolum	waxyleaf meadowrue		N
Verbesina heterophylla	variable-leaf crownbeard		E
Zephyranthes simpsonii	redmargin zephyrlily		T

FEDERAL LEGAL STATUS

Legal status information provided by FNAI for information only. For official definitions and lists of protected species, consult federal agency. Definitions derived from U.S. Endangered Species Act of 1973, Sec. 3. Note that the federal status given by FNAI refers only to Florida populations and that federal status may differ elsewhere.

C = Candidate species for which federal listing agencies have sufficient information on biological vulnerability and threats to support proposing to list the species as Endangered or Threatened.

DL = Species has been delisted.

E = Endangered: species in danger of extinction throughout all or a significant portion of its range.

E, T = Species currently listed endangered in a portion of its range but only listed as threatened in other areas

E, PDL = Species currently listed endangered but has been proposed for delisting.

E, PT = Species currently listed endangered but has been proposed for listing as threatened.

E, XN = Species currently listed endangered but tracked population is a non-essential experimental population.

T = Threatened: species likely to become Endangered within the foreseeable future throughout all or a significant portion of its range.

PE = Species proposed for listing as endangered

PS = Partial status: some but not all of the species' infraspecific taxa have federal

PT = Species proposed for listing as threatened

SAT = Treated as threatened due to similarity of appearance to a species which is federally listed such that enforcement personnel have difficulty in attempting to differentiate between the listed and unlisted species.

SC = Not currently listed, but considered a "species of concern" to USFWS.

UR = Species is currently under review for listing.

STATE LEGAL STATUS

Provided by FNAI for information only. For official definitions and lists of protected species, consult the relevant state agency. Fish

Wildlife Conservation Commission, 1 August 1997, and subsequent updates.

C = Candidate for listing at the Federal level by the U. S. Fish and Wildlife Service

FE = Listed as Endangered Species at the Federal level by the U. S. Fish and Wildlife Service

FT = Listed as Threatened Species at the Federal level by the U. S. Fish and Wildlife Service

FXN = Federal listed as an experimental population in Florida

FT(S/A) = Federal Threatened due to similarity of appearance

ST = State population listed as Threatened by the FFWCC. Defined as a species, subspecies, or isolated population which is acutely vulnerable to environmental alteration, declining in number at a rapid rate, or whose range or habitat is decreasing in area at as a consequence is destined or very likely to become an endangered species within the foreseeable future.

N = Not currently listed, nor currently being considered for listing.

Plants: Definitions derived from Sections 581.011 and 581.185(2), Florida Statutes, and the Preservation of Native Flora of 5B-40.001. FNAI does not track all state-regulated plant species; for a complete list of state-regulated plant species, call Plant Industry, 352-372-3505 or see: <http://www.doacs.state.fl.us/pi/>.

E = Endangered: species of plants native to Florida that are in imminent danger of extinction within the state, the survival of which is unlikely if the causes of a decline in the number of plants continue; includes all species determined to be endangered or to the U.S. Endangered Species Act.

T = Threatened: species native to the state that are in rapid decline in the number of plants within the state, but which have not so decreased in number as to cause them to be Endangered.