GDOT Office of Environmental Services
Borrow Site Environmental Survey
Revised Management Summary

Site Name: Ben Huffman Borrow Pit
County: Twiggs
GDOT Project, P.I. No.: CSNHS-0007-00(251), 0007251
Consultant Firm(s): Parsons Brinckerhoff (Ecology), New South Associates (Cultural Resources), and Edwards-Pitman Environmental (History)
Date: Revised July 25, 2014

Site Description: The proposed ±10.74-acre borrow pit site is located on the east side of Missile Base Road, approximately 0.85 mile northeast of the intersection of Missile Base Road and State Route (SR) 96 in Twiggs County, Georgia. At the time of the field survey, the site consisted of planted pine and vegetation. The site location is situated on a knoll, approximately 80 meters west of Richland Creek. The area surveyed for this management summary includes the proposed site and the associated haul road as described below.

Environmental Results: Identified Resource(s) - None ☐ Archaeology ☒ History ☐ Ecology ☐
Resource Impacts Anticipated/Buffer Required: Yes ☒ No ☐

Archaeology:
Author/Firm: Lauren Walls, New South Associates
Date Surveyed: June 30 and July 1, 2014

IF/Site(s) Identified:	Yes ☒ No ☐	
NRHP Recommendation:	Eligible or Unknown/Contributing	☒
	Ineligible or Unknown/Non-contributing	☐
Resource Impacts Anticipated:	Yes ☒ No ☐	

Description: On June 25, 2014, a check of the Georgia Archaeological Site File (GASF) was conducted electronically for this project using the GNAHRGIS database at the University of Georgia in Athens. One previously identified archaeological site, an historic cemetery, is located within a one-kilometer radius of the proposed site. The cemetery is not within the view shed of the proposed borrow pit site. No previously recorded archaeological sites fall within the Area of Potential Effect (APE) of the currently proposed site.

Fieldwork was conducted on June 30 and July 1, 2014, and consisted of visual inspection as well as systematic shovel testing. The APE is a gently sloping landform with vegetation made up of pines and young hardwoods. Photo documentation and Trimble GPS data collection of the proposed boundary was gathered. The proposed borrow pit site corners are staked and flagged. Corner locations were provided as UTM coordinates, and Trimble GPS points were taken at each of the proposed corner locations. Representative photos of the existing site conditions are provided in Photo 1 and Photo 2.


Photo 1. Site Conditions, facing south.


Photo 2. Site Conditions, facing north.

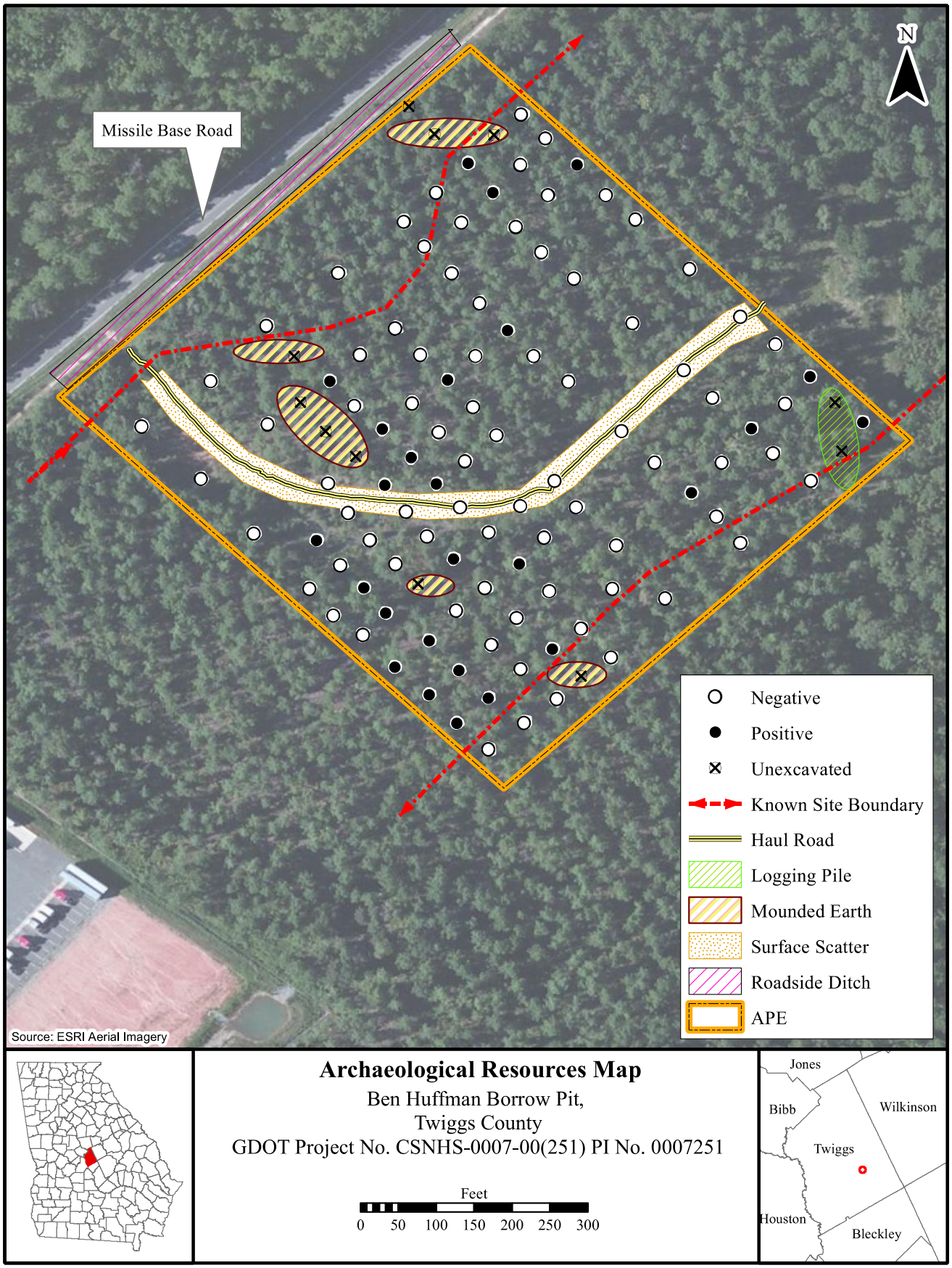
Surface visibility within the APE is approximately 20 percent. The proposed location was shovel tested using 30-centimeter round tests systematically excavated along seven transects. A total of 108 shovel tests were excavated within the APE, 26 of which were positive for cultural material. Of the total number of tests, 45 tests were negative delineations. Additionally, cultural material was recovered from the surface of the haul road, which runs through the length of the APE. One archaeological site was identified within the APE (Field Site 1). Delineations of regularly spaced positive shovel tests at 15-meter intervals indicate that all of the positive shovel tests and surface scatter are associated with Field Site 1, as all positive tests are linked together by no more than 60 meters between them. The locations of all shovel tests relative to site boundaries are provided in the attached figure (see *Archaeological Resource Map*, page 3). Logging activities on the proposed borrow pit site resulted in logging piles, and piles of mounded earth, which interfered with shovel test locations in some cases (these areas are also indicated on the *Archaeological Resource Map*). Additionally, artifact collectors have been active on the site. Along the haul road, piles of lithic artifacts were laid atop tree stumps. Two collector piles were encountered in the field. These piles were photographed and geo-tagged, but were not collected due to the lack of archaeological context. An *Archaeological Resources Photo Sheet* of this material was included in the email that contained this management summary.

Field Site 1 is a pre-contact lithic and ceramic scatter with a minor historic component that covers a 32,400 square meter area, encompassing most of the 10.75 acre APE. The site is located on a knoll, approximately 161.5m AMSL in the proposed site of the borrow pit at UTM -83.35855N 32.630527E (WGS1984). Field Site 1 is approximately 180 m N-S by 180 m E-W and is bisected by an existing dirt road, which contained a surface scatter of artifacts along all but 10 meters of its entire length. The site likely continues beyond the APE boundary to the northeast and southwest and therefore, its full extent is unknown.

A typical soil profile within the site consisted of 0 to 20 centimeters of 7.5YR 5/8 strong brown clayey sand, underlain by 2.5YR 5/8 red clay. In the northeast and southeast corners of the APE, the soil was more intact and a typical soil profile consisted of 30-50 centimeters of 7.5 YR 5/8 strong brown clayey sand over 2.5YR 5/8 red clay subsoil. The soils did not vary much across the proposed borrow pit site although logging within the APE has resulted in erosion and slopewash that has had an observable effect on the distribution of soils and artifacts across the site. In effect, this results in exposing artifacts in eroded areas and redepositing artifacts downslope along with eroded soils.

Artifact density at Field Site 1 is high with 199 artifacts recovered from 26 positive shovel tests and a large surface collection. Artifacts were generally collected from the ground surface at disturbed and eroded areas, and were found buried in areas of intact soil, up to 50 centimeters below the surface. The total number of artifacts collected from the ground surface was 158, 155 of which are from the pre-contact period and four of which are from the historic period. The artifact assemblage for Field Site 1 is comprised of Coastal Plain chert, unidentified chert, and quartz debitage and tools as well as a pre-contact plain ceramic, a Vining Simple Stamped ceramic sherd, plain and polychrome decal whiteware, and milk glass container fragments (see Table 1, page 4). Coastal Plain chert debitage and tools recovered from the site include 104 flakes, 64 flake fragments, one core, three bifaces, eight pieces of angular debris, and a projectile point/knife fragment, none of which diagnostically represent a particular time period. Unidentified chert debitage includes two flakes, five flake fragments, and two pieces of angular debris. Two small quartz flakes were also recovered. Ceramic artifacts include two pre-contact specimens, one undecorated coarse-sand tempered body sherd and one Vining Simple Stamped coarse-sand tempered body sherd. Two historic ceramics were identified, including a plain whiteware vessel fragment and a polychrome decal decorated whiteware vessel fragment. Two milk glass container fragments, also from the historic period, were identified. A single piece of animal bone, most likely modern, was collected from the haul road scatter.

The Vining Simple Stamped ceramic is the only pre-contact ceramic in the assemblage that provides a temporal association. The Vining Simple Stamped sherd dates to the Late Woodland/Early Mississippian period, approximately AD 800-1200 (Elliot and Wynn 1991:12; Keith 2004:122). Vining Simple Stamped is characterized by lightly applied thin stamping, believed to have been done using an untwisted string wrapped paddle (Keith 2004:15). Lands and grooves range from under two to over five millimeters in width, sometimes with both narrow and wide patterns on the same vessel. Vessel exteriors were stamped all over in a parallel or



Archaeological Resources Map

Ben Huffman Borrow Pit,
Twiggs County
GDOT Project No. CSNHS-0007-00(251) PI No. 0007251

Feet
0 50 100 150 200 250 300

Table 1. (Site Number) Artifacts.

Artifact Description	Count	Weight (grams)
Coastal Plain Chert, Flake	104	327.0(g)
Coastal Plain Chert, Flake Fragment	64	106.4(g)
Coastal Plain Chert, Core	1	70.1(g)
Coastal Plain Chert, Biface	3	50.8(g)
Coastal Plain Chert, Projectile Point/Knife Fragment	1	24.4(g)
Coastal Plain Chert, Angular Debris	8	57.2(g)
Chert (Unidentified), Flake	2	7.4(g)
Chert (Unidentified), Flake Fragment	5	5.7(g)
Chert (Unidentified), Angular Debris	2	5.3(g)
Quartz, Flake	2	2.0(g)
Coarse-Sand Tempered Vining Simple Stamped Body Sherd	1	6.5(g)
Coarse-Sand Tempered Undecorated Body Sherd	1	6.1(g)
Whiteware, Plain	1	2.1(g)
Whiteware, Polychrome decal	1	5.0(g)
Container Glass, Milk Glass	2	6.1(g)
Bone, Non-human	1	0.6(g)
Total	**199**	**682.7(g)**

overstamped pattern (Elliott and Wynn 1991; Williams and Thompson 1999:129). Vining phase sites have a wide distribution across central and south central Georgia, primarily in the Oconee and Ocmulgee river basins. Generally these are large concentrated upland sites with smaller short-term resource-extraction or special activity loci in riverine areas (Keith 2004:122). The presence of this ceramic sherd within the APE means that the identified site was occupied as early as the Late Woodland period, around A.D. 800, although this component may be pre dated by the lithic assemblage, which could represent a pre-ceramic component. The Vining Simple Stamped sherd and the undecorated sherd were both found subsurface within intact context in different areas of the site. This indicates that the site was likely in use during the Late Woodland period. The presence of abundant lithic debitage, both on and beneath the surface, similarly indicates pre-contact use of the site. The assemblage of lithic artifacts do not allow for the association of the artifacts with a particular time period. The lithic assemblage though, which is made up of material at all stages of reduction, indicates that chert may have been quarried at a source nearby and brought to the site, as no source was identified within the APE.

The four historic period artifacts, whiteware and milk glass container fragments, have production start dates beginning in 1743 and continuing into the twentieth century. These artifacts were recovered on the surface along the dirt haul road. The heavily disturbed nature of the area and low number of historic artifacts indicate that they are likely not in primary context. Additionally, no historic resources were discovered within the APE or the one-kilometer search radius during the GNARGIS or Tax Assessor's website search.

Although the site has been affected by logging and by erosion, some areas appear to contain artifacts in primary intact context. This may indicate that good site structure is present. The portion of Field Site 1 within the APE may yield additional information important to the understanding of the pre-contact period of the area. Specifically, the archaeological record of this site may be used to explore research issues such as settlement patterning, lithic procurement and tool production, and further our understanding of the relatively poorly understood Vining phase. If the site cannot be avoided, Phase II testing could more solidly identify cultural components, and determine if the site is able to address important research questions pertaining to the organization of work associated with lithic reduction, and explore tool production technology within identified periods. Thus, under criterion D, this portion of the site as it exists within the APE may contribute to the overall eligibility of the site for the NRHP. Therefore, based on the archaeological data presented in this narrative and given the size of the overall site relative to the limits of the proposed borrow pit, it is recommended that this site be denied for use.

History:

Author/Firm: Lauren Walls, New South Associates and Leslie Brown, Edwards-Pitman Environmental

Date Surveyed: June 25, 2014 Desktop ☒ Field Survey ☐

Resource(s) Identified: Yes ☐ No ☒

NRHP Recommendation: Eligible or Unknown/Contributing ☐

Ineligible or Unknown/Non-contributing ☐

Resource Impacts Anticipated: Yes ☐ No ☒

Description: In order to identify any properties 50 years of age or older within the APE of the proposed site, several sources were consulted. In addition to GNAHRGIS, the NRHP listed properties, properties pending NRHP nomination, National Historic Landmarks, bridges determined eligible for inclusion in the NRHP in the updated Georgia Historic Bridge Survey, the Twiggs County Tax Assessor's Records, historic aerial photography, topographic quadrangle maps, and modern aerials and street views were also consulted.

No historic structures were identified within the viewshed of the project area. An online survey of historical resources was conducted using the GNAHRGIS database on June 25, 2014, which identified no historical properties within the viewshed of the APE. A survey of the tax assessor's records for Twiggs County (Parcel Number T103 027) indicates there are no structures greater than 50 years of age on the 94.82-acre parcel. Therefore, no further historical investigation is recommended.

Ecology:

Author/Firm: Andrea Benson, Parsons Brinkerhoff

Date Surveyed: June 30, 2014

Ecological Resource(s) Identified: Yes ☐ No ☒

Resource Type: Stream ☐ Wetland ☐ Open Water ☐ T&E/Habitat ☐

Any State Buffered Waters? Yes ☐ No ☒

Any Jurisdictional Waters? Yes ☐ No ☒

Resource Impacts Anticipated: Yes ☐ No ☒

Description: The ecology fieldwork was conducted on June 30, 2014. No jurisdictional waters of the US were identified within or adjacent to the site. There are no buffered state waters within or adjacent to the proposed site.

The land within the proposed site consists of a planted loblolly pine (*Pinus taeda*) stand that has been cleared in the past with hardwood tree species in the midstory and other herbaceous species in the understory. Other common plant species growing within or along the boundaries of the proposed site include water oak (*Quercus nigra*), sweetgum (*Liquidambar styraciflua*), red maple (*Acer rubrum*), chokecherry (*Prunus virginiana*), winged sumac (*Rhus copallinum*), various greenbriar species (*Smilax* spp.), broomsedge (*Andropogon virgicus*), bahiagrass (*Paspalum notatum*), Bermuda grass (*Cynodon dactylon*), fleabane (*Erigeron philadelphicus*), muscadine (*Vitis rotundafolia*), Japanese honeysuckle (*Lonicera japonica*), and blackberry (*Rubus* sp.).

The U.S. Fish and Wildlife Service's (USFWS) Information, Planning, and Conservation System (IPaC) was consulted for information regarding potential impacts to protected species related to implementation of the proposed project. The IPaC lists three species of concern within Twiggs County: fringed campion (*Silene polypetala*), relict trillium (*Trillium reliquum*), and gopher tortoise (*Gopherus polyphemus*).

Fringed campion is a perennial herb that inhabits mature hardwood forests with low-acid soils on moist, mid- to lower slopes and small stream terraces. No suitable habitat was observed during the field survey. Due to the absence of suitable habitat, utilization of the proposed site would have no effect on fringed campion.

Relict trillium occurs within mature hardwood forests in rich ravines and on stream terraces, and over calcium rich bedrock such as amphibolite or limestone. No suitable habitat was observed during the field survey. Due to the absence of suitable habitat, utilization of the proposed site would have no effect on relict trillium.

Gopher tortoises are a characteristic species of the rapidly disappearing longleaf pine and wiregrass community, which includes sandhills, dry flatwoods, and turkey oak scrub. Historically, this community was represented by an open-canopied forest that allowed abundant sunlight penetration and conditions favorable for a rich growth of herbaceous vegetation. Very little of this naturally occurring habitat still exists; therefore, many tortoises have been found in artificial habitats, such as roadsides and old fields, that retain the three key requirements: sandy soil for burrowing, sunlight availability and abundant herbaceous vegetation. No suitable habitat was observed during the field survey. Due to the absence of suitable habitat, utilization of the proposed site would have no effect on gopher tortoise.

During the field survey, no threatened or endangered species were observed within the survey area. Furthermore, there was no potential suitable habitat within the survey area for any of the threatened and endangered species listed as occurring within Twiggs County, Georgia.

Haul Road:

Cultural Resource(s) Identified: Yes ☒ No ☐

NRHP Recommendation: Eligible or Unknown/Contributing ☒

Ineligible or Unknown/Non-contributing ☐

Ecological Resource(s) Identified: Yes ☐ No ☒

Resource Type: Stream ☐ Wetland ☐ Open Water ☐ T&E/Habitat ☐

Resource Impacts Anticipated: Yes ☒ No ☐

Description: Access to the proposed site would be by a haul road that is approximately 10 feet in width and located at the approximate midpoint of the northwestern boundary of the APE. The haul road continues through the APE in a southeasterly direction, turning north at the approximate center of the APE. The haul road at the site was surveyed as part of the field reconnaissance. The existing condition of this road is unpaved and is currently used to access a hunting area on the parcel. The archaeological resource survey of the haul road consisted of a pedestrian survey. Archaeological resources were identified along the length of the haul road, and are part of Field Site 1 identified within the APE (see *Archaeological Resources Map*). The proposed haul road will not impact any streams/jurisdictional buffers identified as part of the reconnaissance of the site.

Conclusions and Recommendations: This site is not recommended for approval based on the archaeological data gathered for this report.

References:

Elliot, Daniel T. and Jack T. Wynn. 1991. The Vining revival: A Late Simple Stamped Phase in the Central Georgia Piedmont. *Early Georgia* 19:1.

Keith, Scot J. 2004. Prehistory of the Stuckey Tract, Bleckley County, Georgia. Submitted to Earth Tech, Inc. P.I. NO.: 531100 & 571470. Southern Research Historic Preservation Consultants, Inc.