

Phase IA Archaeological Assessment of the St. Mary's County Sports Complex

St. Mary's County, Maryland



Prepared for:
MW Studios
8098 Sandpiper Circle, Suite H
Nottingham, MD 21236



Prepared by:
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ASSOCIATES, INC.**
2130 Priest Bridge Drive Suite 1
Crofton, Maryland 21114

December 2024

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December 2024

ABSTRACT

In December 2024, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase IA archaeological assessment of the proposed St. Mary's County Sports Complex (Study Area) in St. Mary's County, Maryland. In February 2024, the Commissioners of St. Mary's County (County) and the Maryland Stadium Authority (MSA) entered into a Memorandum of Understanding (MOU) for MSA to provide architectural/engineering (A/E) services related to the potential development of a new sports complex to be located in the Study Area. The work was conducted under sub-contract with MW Studios. All work was conducted by qualified professional archaeologists in accordance with guidelines established by the Maryland Historical Trust and the Secretary of the Interior's Guidelines for Archeology and Historic Preservation. The study consisted of background research, a pedestrian survey, and the preparation of a technical report.

The 250.66-acre Study Area is located in central St. Mary's County, west of California, between Saint Andrews Church Road to the north and Indian Bridge Road to the south. The Study Area includes the St. Mary's River drainage and its tributaries including Johnsons Pond. The southwestern boundary of the Study Area is formed by Johnsons Pond Lane and a transmission line runs north to south through the western portion of the Study Area. The western and eastern uplands of the Study Area are primarily wooded. No archaeological surveys have been conducted within the Study Area and no archaeological or architectural resources have been identified within the Study Area.

Archaeological sensitivity in the Study Area was evaluated based on a number of factors, including background research, environmental setting, and the results of the pedestrian survey. The upland ridges and ridge fingers overlooking the central drainage would have provided an attractive environment for precontact occupation and/or seasonal use and are considered to have High sensitivity for archaeological resources. Furthermore, precontact sites have been found in similar topographic settings to the immediate southeast of the Study Area overlooking the St Mary's River. Historic maps and aerial photographs depict several structures in the Study Area by 1901. The pedestrian survey observed several twentieth century historic occupational features. These areas are also considered to have High sensitivity for archaeological resources.

Upland areas displaced from freshwater resources, as well as side slopes approaching the low-lying areas, are considered to have Moderate archaeological sensitivity. Low-lying areas with poorly drained soils, evidence of frequent flooding, and areas of excessive slope are considered to have Low archaeological sensitivity.

Based on these factors, the majority of the Study Area (155.37 acres) has been determined to have High or Moderate archaeological sensitivity, while the remaining 95.29 acres are considered Low sensitivity. **A Phase IB archaeological survey is recommended for areas of High and Moderate archaeological sensitivity in the Study Area** (approximately 155.37 acres) due to favorable environmental conditions and known historic occupation. **Additional pedestrian survey supplemented by judgmentally placed STPs are recommended for areas of low archaeological sensitivity.**

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1. INTRODUCTION

In December 2024, Applied Archaeology and History Associates, Inc. (AAHA) conducted a Phase IA archaeological assessment of the proposed St. Mary's County Sports Complex (Study Area) in St. Mary's County, Maryland. In February 2024, the Commissioners of St. Mary's County (County) and the Maryland Stadium Authority (MSA) entered into a Memorandum of Understanding (MOU) for MSA to provide architectural/engineering (A/E) services related to the potential development of a new sports complex to be located in the Study Area. The work was conducted under sub-contract with MW Studios. All work was conducted by qualified professional archaeologists in accordance with guidelines established by the Maryland Historical Trust (MHT) and the Secretary of the Interior's Guidelines for Archeology and Historic Preservation. The study consisted of background research, a pedestrian survey, and the preparation of a technical report.

The background research was undertaken by Jasmine Gollup, RPA, Kristen Browne, Dylan Howes, Emily Rux, and Emily Masters, RPA. The pedestrian reconnaissance was undertaken by Patrick Walters and Dylan Howes. Jeanne Ward, RPA served as principal investigator and project manager.

The 250.66-acre Study Area is located in central St. Mary's County, west of California, between Saint Andrews Church Road to the north and Indian Bridge Road to the south (Figure 1-1 through Figure 1-3). The Study Area includes the St. Mary's River drainage and its tributaries including Johnsons Pond. The southwestern boundary of the Study Area is formed by a maintained access road (Johnsons Pond Lane) that traverses the Study Area and connects to Saint Andrews Church Road at the western extent of the Study Area and to Old Saint Andrews Church Road through Barnes and Yea Lane in the northeastern corner of the Study Area. A transmission line runs north to south through the western portion of the Study Area. The western and eastern uplands of the Study Area are primarily wooded with intermediate growth deciduous and evergreen trees.

Historic maps and aerial photographs indicate that the Study Area has been primarily wooded throughout the twentieth century, with small cleared areas present in the late twentieth century, likely related to former occupation and activity areas. No archaeological surveys have been conducted within the Study Area and no archaeological or architectural resources have been identified within the Study Area; however, numerous previously identified archaeological sites have been identified in the vicinity of the Study Area. The Study Area lies within Maryland Archaeological Research Unit 10, the Estuarine Potomac Drainage (Figure 1-4).

Organization of the Report

This report presents five (5) chapters and a list of references cited. Following this introduction (Chapter 1), which includes a brief description of the project, Chapter 2 provides an overview of the environmental conditions. Chapter 3 discusses the cultural context and previous research within and in the vicinity of the Study Area and reviews the pedestrian survey. Chapter 4 presents the results of the archaeological sensitivity analysis. Chapter 5 summarizes the findings and provides recommendations. References cited are followed by the qualifications of the investigators (Appendix A).



Figure 1-1. Location of the Study Area on the 2024 Open Street Map basemap (Open Street Map 2024).

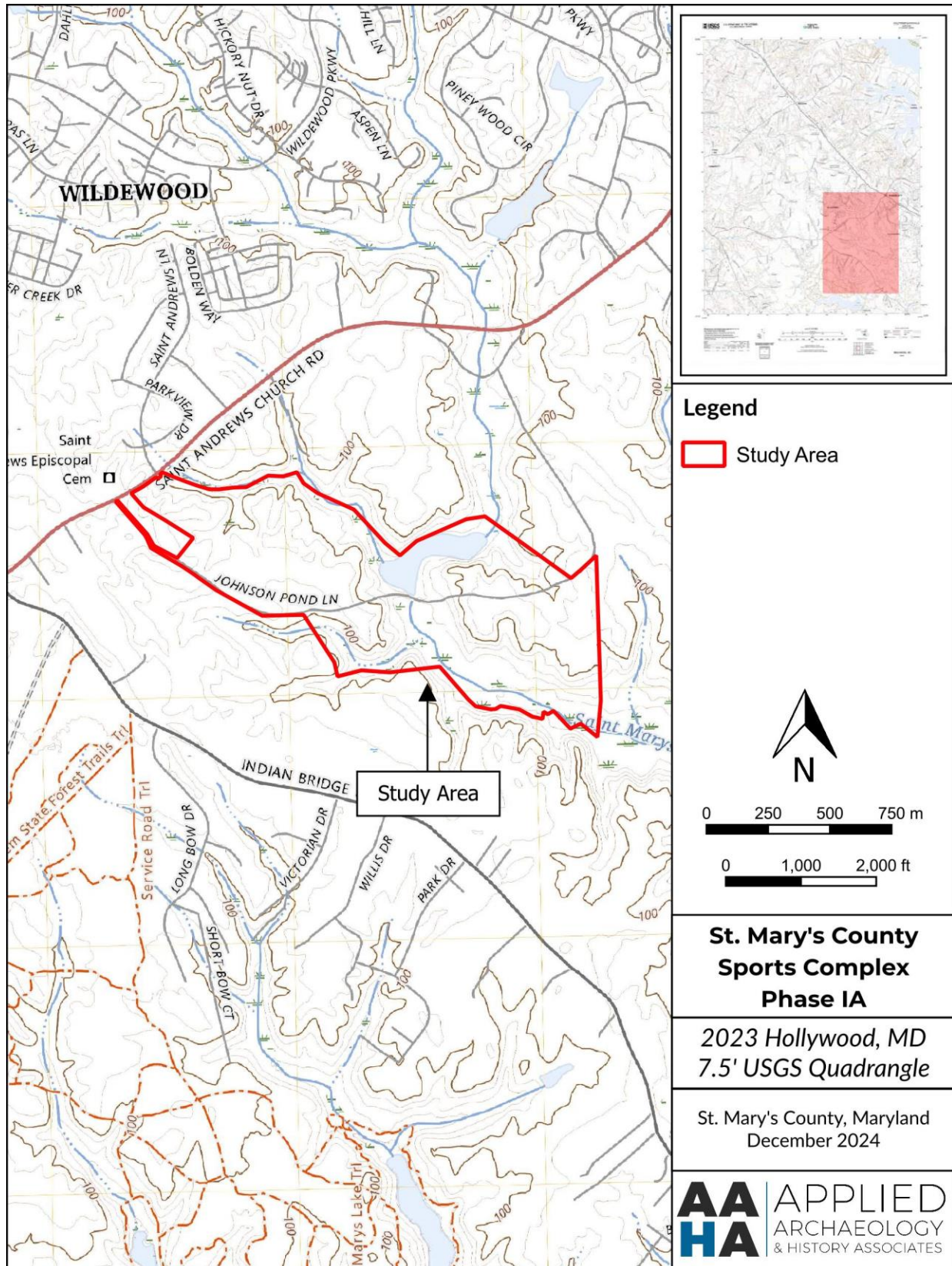


Figure 1-2. Detail of the 2023 United States Geological Survey (USGS) *Hollywood, MD* 7.5-minute quadrangle showing the location of the Study Area (USGS 2023).

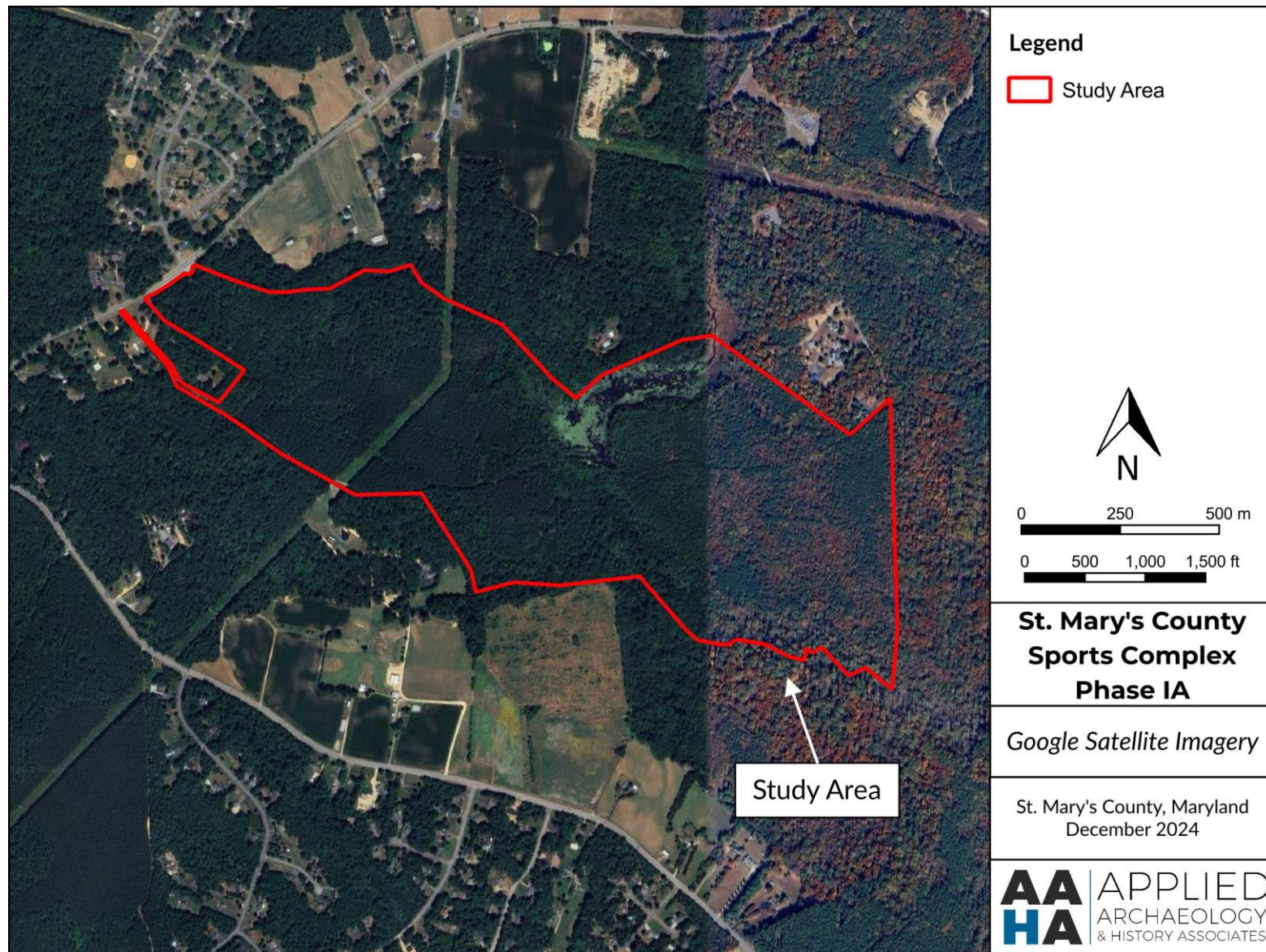


Figure 1-3. Aerial photograph showing the current conditions in the Study Area.

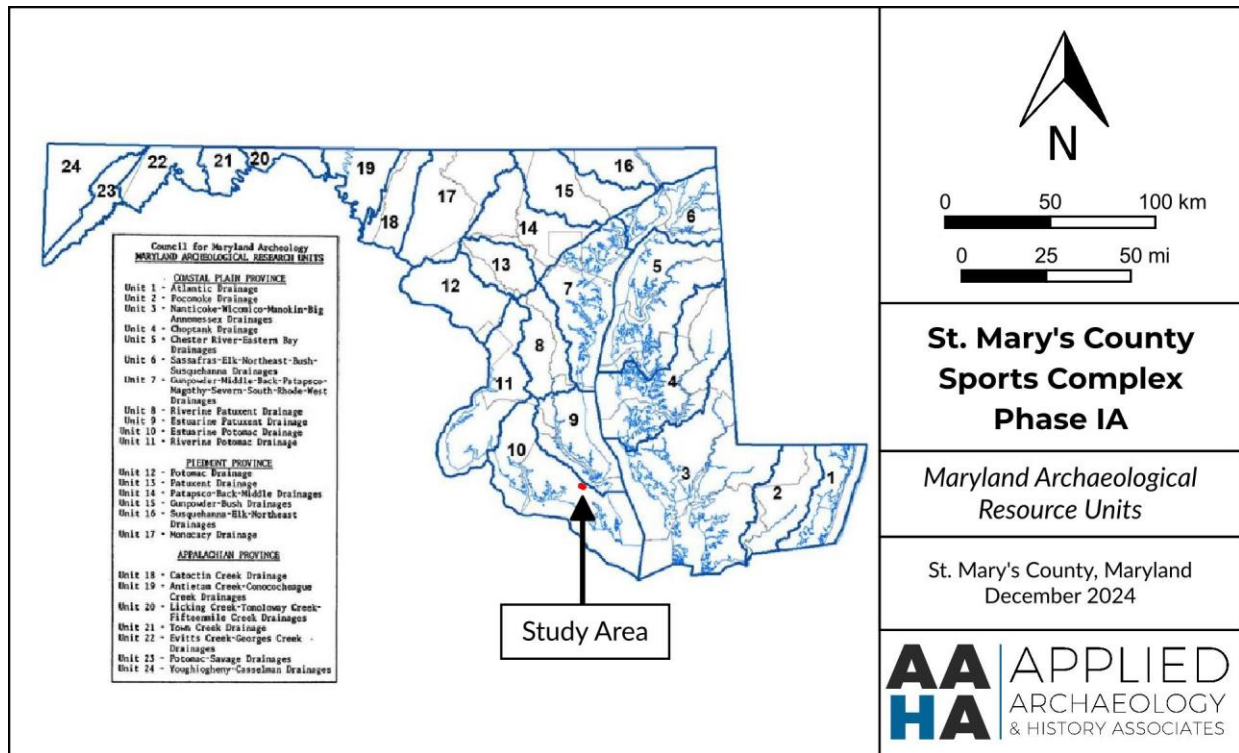


Figure 1-4. Map of Maryland Archaeological Research Units showing the location of the Study Area.

2. ENVIRONMENTAL CONTEXT

The 250.66-acre Study Area is located in central St. Mary's County, west of California, between Saint Andrews Church Road to the north and Indian Bridge Road to the south. The Study Area features two broad uplands separated by the deeply incised St. Mary's River and its tributaries. A large pond, Johnsons Pond, lies in the center of the Study Area, fed by the St. Mary's River and unnamed tributaries with wetlands noted along the waterways. The St. Mary's River is a tributary of the Potomac River.

Physiography and Geology

The Study Area is located in the Atlantic Coastal Plain, Western Shore physiographic province, which consists of nearly flat to gently rolling upland surfaces and stream terraces (Reger and Cleaves 2008). The Study Area is within the deeply incised St. Mary's River valley. Relief is undulating with elevations ranging from 20 to 37 m (67 to 122 feet [ft]) above mean sea level (amsl) across most of the Study Area (MD iMap Topography Viewer 2021).

Geological strata underlying the Study Area are mapped as Upland Gravels, the Park Hall Formation, and undivided Holocene Deposits (McCartan 1989). The majority of the Study Area is mapped as Upland Gravel deposits. These date to the Upper Pliocene and are composed of gray, pink, or yellow orange muddy sands that grade laterally into or are overlain by yellow to tan medium gravel with sparse coarse clasts.

Also dating to the Upper Pliocene, the Park Hall formation consists of silty fine-grained sands and fine to medium sand and clay interbedded with medium- to coarse-grained sand. Pebbles, cobbles, and boulders are common with coarser material typically encountered at the base of the formation. The Park Hall formation contains large quantities of sediments that originated from the Piedmont, Triassic Basins, and the Appalachian Mountains that are intermixed with locally derived clasts. Unconsolidated Holocene Deposits are found beneath and adjacent to modern waterways. These deposits are composed of poorly sorted sands, gravels, as well as poorly to well sorted tan sand, gray silt, and greenish to black clay. Depositional environments include tidal marshes, rivers, and swamps with thicknesses ranging from less than three ft to more than 20 ft in some channels.

Gravel deposits, quartz, and quartzite are common within the above-mentioned geologic formations and would have provided lithic source material for the manufacture of stone tools. Quartz, quartzite, and rhyolite predominate on many western Coastal Plain precontact sites. Cherts and jaspers were also used. In many areas of the Coastal Plain, jaspers occur principally in secondary deposits of stream cobbles (Custer and Galasso 1980). Rhyolite distributions on archaeological sites have been thoroughly documented by Stewart (1987) for areas in central and eastern Maryland. Stewart's studies include an examination of trends in rhyolite usage at various distances from outcrops. The use of rhyolite is evident in assemblages from the Late Archaic in the Coastal Plain and the Piedmont, when the first clear evidence of trade is found in the region.

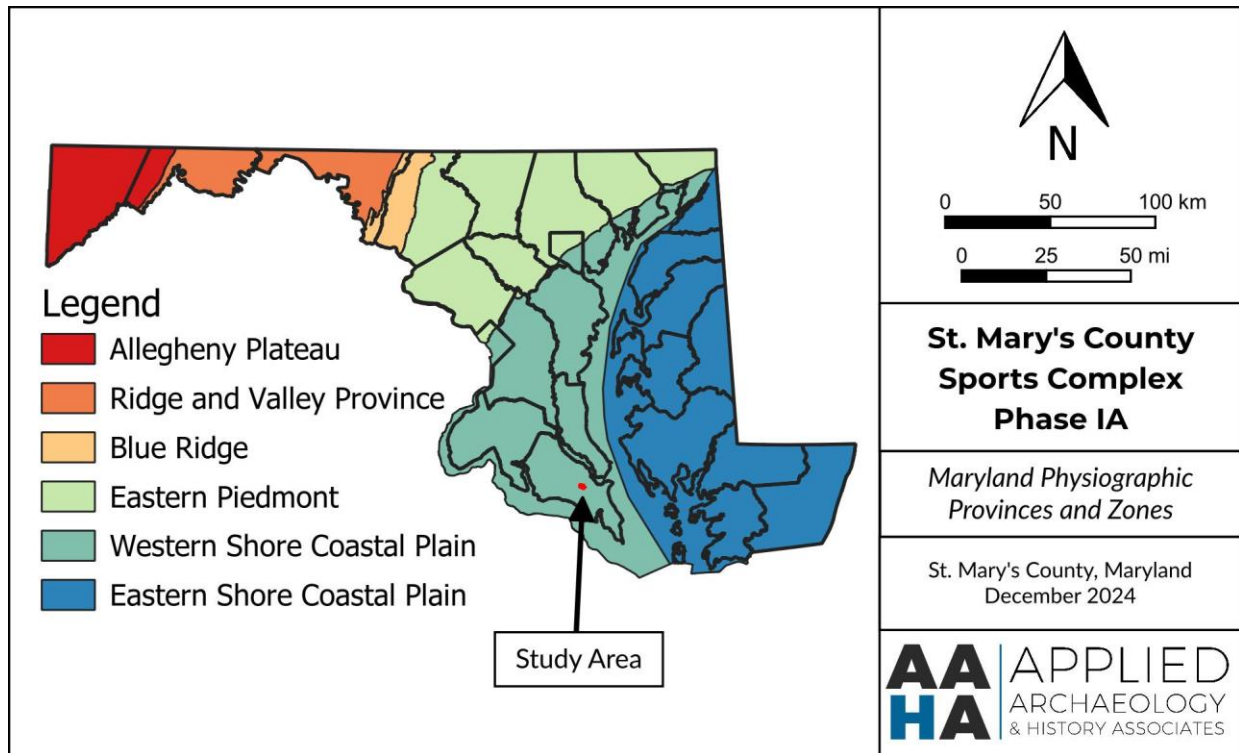


Figure 2-1. Map of physiographic provinces in Maryland showing the location of the Study Area.

Soils

Soil analysis utilized the USDA Web Soil Survey (WSS) as depicted in Figure 2-2 and on Table 2-1. Soils vary considerably across the Study Area and include Alluvial land (Aa), Beltsville silt loam (2-5% slopes and 5-10% slopes; BIB2 and BIC3), Bibb silt loam (Bm), Bourne fine sandy loam (2-5% slopes and 5-10% slopes; BrB2 and BrC3), Caroline silt loam (5-10% slopes; CaC2 and CaC3), Chillum loam (0-2% slopes, 2-5% slopes, and 5-10% slopes; ChA, ChB2, ChC2, and ChC3), Croom gravelly sandy loam (5-10% slopes; CrC2), Eversboro loamy sand (8-15% slopes; EvC), Eversboro-Westphalia complex (12-20% slopes and 20-45% slopes; EwD2 and EwE2), Kempsville fine sandy loam (5-10% slopes; KeD2), Rumford loamy sand (5-10% slopes; RuC2), Sassafras sandy loam (5-10% slopes; SaaC), and Woodstown sandy loam (2-5% slopes; WdaB).

Paleoenvironment

Approximately 15,000 years ago, sea levels began rising and transgressing the exposed Atlantic continental shelf. By 10,000 BP ocean waters extended to the Cape Charles paleochannel located at the mouth of the Chesapeake Bay (Dent 1995). During this same time period, the vegetational landscape consisting of coniferous forests associated with the late Pleistocene was being displaced by a mixed coniferous-deciduous forest with reduced open character (Owens et al. 1974). Pollen cores obtained from the Dismal Swamp in the southern margins of the Chesapeake region show a transition from pine and spruce trees to oak, chestnut, and hickory around 8,200

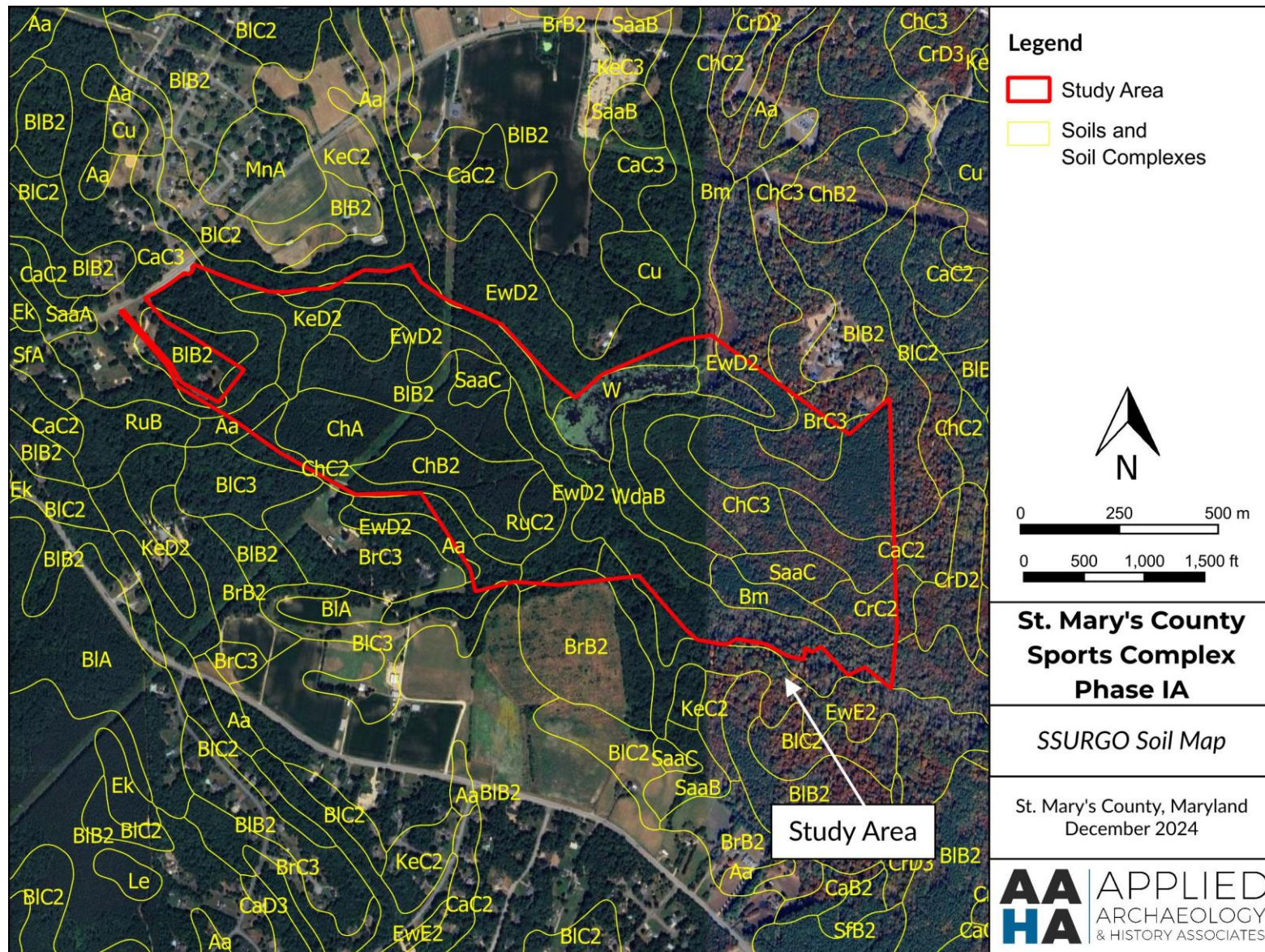


Figure 2-2. Aerial photograph showing soils and soil complexes within the Study Area.

TABLE 2-1. SOILS AND SOIL COMPLEXES WITHIN THE STUDY AREA.

SOIL	SOIL NAME	SLOPE	DRAINAGE	LANDFORM	PARENT MATERIAL	FARMLAND?	ACREAGE
Aa	Alluvial land	0-2%	Moderately well drained	Floodplains	Sandy and silty alluvium	Not prime farmland	6.0
BIB2	Beltsville silt loam, moderately eroded	2-5%	Moderately well drained	Broad interstream divides	Silty eolian deposits over loamy fluviomarine deposits	Farmland of statewide importance	42.1
BIC3	Beltsville silt loam, severely eroded	5-10%	Moderately well drained	Broad interstream divides	Silty eolian deposits over loamy fluviomarine deposits	Not prime farmland	0.1
Bm	Bibb silt loam, frequently flooded	0-1%	Poorly drained	Floodplains	Loamy alluvium	Not prime farmland	38.7
BrB2	Bourne fine sandy loam, moderately sloped	2-5%	Moderately well drained	Broad interstream divides	Silty eolian deposits over loamy fluviomarine deposits	Farmland of statewide importance	1.0
BrC3	Bourne fine sandy loam, severely eroded	5-10%	Moderately well drained	Broad interstream divides	Silty eolian deposits over loamy fluviomarine deposits	Not prime farmland	6.1
CaC2	Caroline silt loam, moderately eroded	5-10%	Well drained	Marine terraces	Clayey marine sediments	Farmland of statewide importance	7.8
CaC3	Caroline silt loam, severely eroded	5-10%	Well drained	Marine terraces	Clayey marine sediments	Not prime farmland	10.9
ChA	Chillum loam	0-2%	Well drained	Interfluves	Silty eolian deposits over gravelly fluviomarine deposits	Prime farmland	13.1

SOIL	SOIL NAME	SLOPE	DRAINAGE	LANDFORM	PARENT MATERIAL	FARMLAND?	ACREAGE
ChB2	Chillum loam, moderately eroded	2-5%	Well drained	Interfluves	Silty eolian deposits over gravelly fluviomarine deposits	Prime farmland	13.5
ChC2	Chillum loam, moderately eroded	5-10%	Well drained	Interfluves	Silty eolian deposits over gravelly fluviomarine deposits	Farmland of statewide importance	5.9
ChC3	Chillum loam, severely eroded	5-10%	Well drained	Interfluves	Silty eolian deposits over gravelly fluviomarine deposits	Not prime farmland	17.1
CrC2	Croom gravelly sandy loam, moderately eroded	5-10%	Well drained	Knolls, interfluves	Gravelly fluviomarine deposits	Farmland of statewide importance	5.8
EvC	Evesboro loam sand	8-15%	Excessively drained	Knolls, dunes	Sandy eolian deposits and/or fluviomarine sediments	Not prime farmland	5.6
EwD2	Evesboro- Westphalia complex, moderately eroded	12- 20%	Excessively drained	Knolls, dunes	Sandy eolian deposits and/or fluviomarine sediments	Not prime farmland	38.5
EwE2	Evesboro- Westphalia complex, moderately eroded	20- 45%	Excessively drained	Knolls, dunes	Sandy eolian deposits and/or fluviomarine sediments	Not prime farmland	1.1
KeD2	Kempsville fine sandy loam, moderately eroded	10- 15%	Well drained	Fluviomarine terraces	Loamy fluviomarine deposits	Not prime farmland	6.6

SOIL	SOIL NAME	SLOPE	DRAINAGE	LANDFORM	PARENT MATERIAL	FARMLAND?	ACREAGE
RuC2	Rumford loamy sand, moderately eroded	5-10%	Well drained	Fluviomarine terraces	Loamy marine sediments	Farmland of statewide importance	5.7
SaaC	Sassafras sandy loam, Northern Coastal Plain	5-10%	Well drained	Fluviomarine terraces, flats	Loamy marine sediments	Farmland of statewide importance	9.5
Water							9.5
WdaB	Woodstown sandy loam, Northern Coastal Plain	2-5%	Moderately well drained	Broad interstream divides, depressions, fluviomarine terraces, flats	Loamy fluviomarine deposits	Prime farmland	6.2

years ago (Whitehead 1972). After 3,500 years ago the local flora and fauna assumed a relatively modern character.

Before the arrival of Europeans, the environment was primarily wooded in deciduous hardwoods (Hall 1973). The dominant tree species included red and white oak, sweetgum, swamp maple, holly, beech, white cedar, and bald cypress. Following European settlement, the area gained an evergreen component, including Virginia, shortleaf, and loblolly pines. Dominant species in this habitat included white and southern red oak, tulip poplar, loblolly pine, American holly, sweet pepper bush, arrowwood, Japanese honeysuckle, poison ivy, and Virginia creeper. Food sources available to precontact inhabitants in the late summer, fall, and early winter of this region included fruits, seeds, greens, and tubers (Steponaitis 1986). Tubers, fruits, greens, and seeds would have been available in the spring, summer, and fall seasons, with dominant species of silky dogwood, bald cypress, seaside alder, narrow-leaved cattail, spotted touch-me-not, buttonbush, sedges, and skunk cabbage.

Flora and Fauna

Animal life along the Chesapeake Bay region reported by early explorers at the time of contact included deer, squirrels, badgers, opossums, rabbits, bears, beavers, otters, foxes, martens, minks, weasels, and numerous fish and bird species (Hughes 1980:66). At present, the region is characterized by three different habitats: terrestrial, wetland, and aquatic. Wildlife commonly found in the terrestrial habitats includes songbirds, red fox, white-tailed deer, woodchuck, raccoon, gray squirrel, eastern chipmunk, Virginia opossum, and black rat snake. The aquatic and wetland habitats are home to a variety of birds (great blue heron, mallard, wood duck, red-winged black bird), muskrat, bullfrog, common musk turtle, and northern water snake. Freshwater streams provide a spawning environment for migratory fish species such as white and yellow perch, herring, and alewife. Resident species include largemouth bass, chain pickerel, and blue spotted sunfish. Seasonally abundant species such as migratory waterfowl were also common.

Modern Climate

St. Mary's County, Maryland experiences an average of 41.5 inches (in) of precipitation per year. Snowfall averages 28 in (Gibson 1978). The temperature throughout the year typically varies from 29 to 87 degrees Fahrenheit. The growing season lasts for an average of 236 days (WeatherSpark 2024).

3. CULTURAL CONTEXT

Precontact Context

The precontact chronology of eastern North America traditionally has been divided into three major cultural/temporal periods: Paleo-Indian, Archaic, and Woodland. These broad designations in turn have been divided into various sub-periods. The generalized periods approximately correspond to differing cultural configurations that became manifest because of adaptations to natural and social environments at a particular time. This chronology was developed in the 1970s and 1980s by researchers primarily interested in settlement patterns, ecological adaptation, and diagnostic artifact identification (Adovasio et al. 1977; Gardner 1974; Hatch et al. 1986) and provided a robust interpretive framework for functional analysis, but has been criticized for its lack of Indigenous participation.

A generation of compliance-based study has been slow to move beyond this limited perspective even as the region's academic authorities have continued to develop interpretations along new epistemological lines to highlight human agency, political complexity, and symbolic expression among precontact and Contact period Indigenous groups (Gallivan 2011). Recent research has focused on providing overviews of specific areas developed with a strong historic research component and in collaboration with federally- and state-recognized Tribes (Strickland et al. 2015; Sullivan et al. 2013).

Paleoindian Period (ca. 12,000-9500 BC)

During the latter part of the last glacial period, corresponding with the end of the Late Pleistocene and beginning of the Early Holocene epochs, most of northern North America (Canada and the northern portions of the United States) was buried beneath thick sheets of ice. The vast amounts of water contained in these continental glaciers lowered ocean levels by as much as 130 meters (m). Large expanses of the continental shelf were exposed, with dry land extending for many kilometers beyond present shorelines. The glaciers did not extend as far south as present-day Virginia, and the Chesapeake Bay of today existed as the ancestral Susquehanna River Valley. Glacial recession 11,000 years ago (ca. 9000 BC) raised sea levels and began to inundate the ancestral river valleys (Johnson 1986:P1-8; Walker 1981; Wall 1981).

The climate was cooler and drier than today, with less seasonal variation. Vegetation included a mix of deciduous and coniferous foliage, varying based on soil conditions, drainage, and elevation. The past 30 years of archaeological research has identified numerous fluted points associated with the Paleoindian period; however, in contrast to earlier assumptions, there appears to be no direct correlation between extinct large game and fluted points, suggesting Paleoindians were more foragers than hunters (Boyd 1989:139; Fiedel and Haynes 2004; Gingerich 2011; Grayson and Meltzer 2003).

Paleoindians lived in small bands in seasonal camps (Dent 1995; Gardner 1989). The earliest evidence of human occupation on the Mid-Atlantic Coastal Plain comes from the Cactus Hill Site (44SX0202), where hearth-like features and charcoal in association with prismatic lithic blades have been dated to between 15,070 $\pm$ 70 BP and 16,670 $\pm$ 730 BP (Moore and Means 2020:3–

36). Paleoindian sites have historically been identified by the presence of diagnostic artifacts, primarily the fluted projectile point, three distinct phases of which have been identified by Gardner (1974).

While radiocarbon dating from stratified sites like Cactus Hill have challenged the long-held Clovis-first theory, the Clovis point is still the most identifiable Paleoindian period artifact, with a regional date beginning circa 9500 BC. The Middle Paleo sub-phase follows and is defined by a reduction in size of the projectile point. The final phase is known as Dalton-Hardaway and features minimally fluted specimens. Paleoindian points were typically fashioned from high-quality cryptocrystalline materials such as chert, chalcedony, and jasper. Other tools recovered from Paleoindian sites include graters, endscrapers, denticulates, spokeshaves, perforators, knives, pièces esquillées, hammerstones, abraders, and unifacial flake tools (Gardner 1989). Lithic material utilized for tools include locally available quartz, as well as wider usage of other local materials such as hornfels and chert (Wall 1981, 2013).

Paleoindian sites in Maryland are typically represented by isolated projectile point finds and small temporary camps. Two important Paleoindian sites in the Mid-Atlantic are the Thunderbird Site, on the South Fork of the Shenandoah River in Warren County, Virginia (Gardner 1974, 1977), and the Williamson Site in south-central Virginia, which contained some of the few intact, stratified Paleoindian deposits identified in the region (McCary 1951, 1975). Very few Paleoindian sites have been identified in the region (Gardner 1989; McCary 1983; Turner 1989), however, three sites with Paleoindian components have been identified in Maryland: the Nolands Ferry Site in Frederick County, the Katcef Site in Anne Arundel County, and the Paw Paw Cove Site in Talbot County. Systematic test excavations at the Katcef site in 1989 and 1990 identified stratified archaeological deposits, which suggests that Paleoindian sites may be present in other deeply buried settings in Maryland that have been obscured by deglaciation, sea level rise, and sediment infilling (Singer 2020).

Archaic Period (ca. 9500-1500 BC)

The Early Archaic Period (ca. 9500-7000 BC) is contemporaneous with the continued recession of continental ice sheets that included the expansion of deciduous forests and the proliferation of game species available in mixed forest settings that slowly replaced grasslands (Carbone 1976; Kavanagh 1982:9). Forestation in the region began along valley floors and only gradually reached higher elevations. Faunal assemblages from the Cactus Hill Site (44SX202) in Virginia demonstrate an increase in the variation of game species available for human consumption (Whyte 1995). The expansion of mixed forests into upland areas after 7000 BC provided a wider variety of available food resources that supported increases in both the density and geographical range of human population (Custer 1990).

While the Early Archaic likely continued patterns of lifeways from the Paleoindian period, changes in the lithic technology styles and morphology are apparent. This includes the appearance of notched projectile points, most notably the corner-notched types such as the Kirk varieties along with the Palmer, Charleston, Hardaway, Kessel, Taylor, and Big Sandy, and Amos types (Dent 1995:168; Justice 1987). Early Archaic projectile points show a continued preference for high-

quality lithic raw material that could support a core-flake manufacturing process and scraper styles (Dent 1995:157). The basis of this preference is uncertain because few radiocarbon dates are available for Early Archaic period sites in the Chesapeake region. Various researchers suggest either established long-range trade networks or reliance on a wider availability of semi-local high-quality raw material that may have impacted macro/micro band mobility (Dent 1995:170; Steponaitis 1986:68). The Archaic tool kit also included an expanded frequency of ground stone tools such as flaked and ground axes, celts, abraders, and adzes (Dent 1995:170).

Early Archaic settlement patterns suggest a diversity of environmental preferences from broad floodplains to upland settings in close proximity to diverse resource zones. Selection of these sites likely reflects a dynamic environment with seasonal variation in food resource availability. Early Archaic site types range from the most common short-term campsites or resource procurement sites to progressively less common lithic scatters (micro-band), base camps (macro-band), or quarries. Base camps (macro-band) are generally defined as occupation areas with access to multiple resource zones that were repeatedly visited seasonally through time, whereas short-term and resource procurement sites were smaller sites with focused resource procurement purposes that were ephemerally occupied (Custer 1989:129–130).

By the end of the Early Archaic, environmental conditions had stabilized seasonally to the point that increasingly predictable seasonal patterns may have promoted repeated visits to locations through greater resource predictability (Dent 1995:195). The appearance of more formal cooking hearths containing fire cracked rock (FCR) in association with bifurcate projectile points suggests that repeated visits to specific base camp locations were common by the transition to the Middle Archaic (Dent 1995:171).

The Middle Archaic period (7000 BC-3750 BC) occurred during a warming period associated with sea level rise and an expansion of biome diversity, including the inundation of the Ancestral Susquehanna River valley to form the Chesapeake Bay and the Potomac River below the Fall Zone. Expansion of inland swamps provided access to continually expanding resource zones that offered favorable environmental settings for base camps and short-term campsites or resource procurement sites favored in the Early Archaic (Barse and Beauregard 1994:9). Some researchers suggest this period is one of the least understood periods of Native American occupation due to the lack of data with definitive dates coinciding with this period (Dent 1995:173).

Projectile point styles, including bifurcate Lecroy, St. Albans, and Kanawha styles, show continuity with Early Archaic forms, with stemmed projectile points from the Stanly Stemmed/Neville, Morrow Mountain I and II, Guilford, and Piscataway types appearing through the end of the Middle Archaic (Justice 1987). A notable shift away from high-quality raw materials in stone tool technology toward more locally available materials such as quartz or quartzite is also apparent during the Middle Archaic period (Barber 1991; Dent 1995:176; Fiedel et al. 2008:10; Hantman 1990).

Settlement patterns in the Middle Archaic period in Maryland tended to shift toward freshwater drainages rather than brackish tidal drainages (Steponaitis 1986). Evidence for more defined activity areas, such as living floors, formal burials, and structural remains, are also increasingly

prevalent within Middle Archaic sites. Exploitation of an increasingly diverse variety of plant resources likely also led to increased sedentary tendencies (Dent 1995:177; Kavanagh 1982:50). The introduction of low-quality lithic raw materials in the Middle Archaic period may indicate increased movement by Archaic peoples into previously unoccupied areas, possibly due to climate change and increasing population density.

The Late Archaic period (3700-1500 BC) saw a continued stabilization of climates and environments. By about 3000 BC, climatic conditions had stabilized into their modern patterns, although minor fluctuations persisted. The continued expansion of oak-hickory forests around the now inundated Chesapeake Bay resembled modern settings and continued to influence site selection and site type (Dent 1995:199). Recent studies have shown that Middle Archaic peoples had begun to occupy river valley settings prior to 3000 BC, but site density in these settings was low until about 200 BC (Klein and Sanford 1996:245).

Lithic technology continued to evolve from the early part of the Late Archaic, where narrow-bladed projectile points such as Bare Island, Lackawaxen, Claggett, Holmes, and Piscataway, eventually gave way to broad-blade projectile point morphology, including Savannah River, Susquehanna, Crispin, and Perkiomen, with derivatives such as Orient Fishtail and Dry Brook also present (Dent 1995:180). Some researchers suggest the evolution of narrow-blade traditions in the early part of the Late Archaic was insular to the region, but the introduction of the broad-blade tradition was influenced by dispersal from the southeast (Dincauze 1976). Increasing numbers of ground stone tools such as adzes, celts, gouges, manos, metates, and pitted stones indicate a more intensive exploitation of edible plant foods. The appearance of netsinkers and fishhooks likely signify a greater dependence on anadromous fish resources and an expansion of foodways to include riverine and estuarine fish runs (Bryan 1977:363; Thomas 1980:II-5).

Early in the Late Archaic period, settlement patterns primarily consist of relatively small sites that are equally divided between riverine and upland locations that offered favorable access to subsistence resources (Dent 1995:185, 197). While seasonal hunting and foraging continued in the Late Archaic, exploitation of riverine, wetland, and riparian floodplain resources began to influence the placement and frequency of larger semi-sedentary base camps in closer proximity to these resources. Greater evidence for semi-sedentary settlement patterns in the Late Archaic includes the appearance of features such as formal hearths, platform hearths, shell middens, and multi-function pits (Dent 1995:187). Recent studies suggest that human settlement was uneven in density, frequency, and distribution in the Middle and Late Archaic periods, with an intensive increase in the transition to the Early Woodland period (Strickland et al. 2016).

Although the onset of agriculture in the region is typically associated with the introduction of Mesoamerican maize, beans, and squash, archaeobotanical studies in the United States have shown that an indigenous agricultural complex developed in the Mississippi River Valley as early as 2000 BC (Yarnell 1976). Remains of squash have been found in the lower Little Tennessee River Valley with contexts containing Savannah River projectile points (ca. 2400 BC), suggesting that squash was among the first cultigen grown in the eastern United States (Chapman and Brewer Shea 1988). Other cultigens predating the introduction of maize to the region include bottle gourd, sunflower, sump weed, goosefoot, little barley, maygrass, and erect knotweed. Stewart

(1995) suggests that while evidence for experimentation with cultigens is present in the Mid-Atlantic, the process was uneven in its adaption in the region. In their comprehensive studies of indigenous cultural landscapes within major drainages tributary to the Chesapeake Bay, Strickland et al. (2019:25) mention that plant remains from any of these cultigens (goosefoot) have only been identified at one site on the Mid-Atlantic Coastal Plain, the Indian Creek V site in the York River Valley.

Woodland Period (ca. 1500 BC-Contact)

The appearance of ceramic technology traditionally has marked the beginning of the Woodland Period (ca. 1500 BC-AD 1600) (Gardner 1980:3). The Early Woodland Period was characterized by a continuation of terminal Late Archaic settlement/subsistence systems, but with added capacity for food storage and preparation afforded by pottery. The earliest ceramic vessels on the Coastal Plain were tempered with crushed steatite and are thought to copy forms from Late Archaic steatite bowls (Klein 1997). A period of rapid experimentation was followed by the widespread adoption of sand-tempered wares that continued into the subsequent Middle Woodland Period.

Expanding populations during this period became increasingly sedentary, probably following a fusion-fission settlement model with populations that consolidated and dispersed based on the time of year. The Coastal Plain's rivers and estuaries became the primary focus of settlement. Shell middens, which have recently been shown to date as far back as 2800 BC in the Chesapeake region (Rick and Waselkov 2015), began appearing along Maryland's rivers in great numbers during the Early Woodland period. This indicates an increased exploitation of marine food sources, most notably oyster.

The Middle Woodland is marked by an expansion of regional and extra-regional exchange networks and the apparent development of ethnic boundaries based on regional variations in pottery styles (Wanser 1982:142). Extra-regional exchange systems are seen in the prevalence of exotic lithic materials such as rhyolite in the Coastal Plain during this period. Archaeologists in Maryland generally identify two phases of Middle Woodland development, the first characterized by a sand-tempered ceramic ware called the Popes Creek series and the second characterized by a shell-tempered ware called the Mockley series (Sperling 2008:26). Mockley ceramics are widely distributed across the Coastal Plain from Delaware to Virginia, as well as in parts of the Piedmont, suggesting frequent contact among Middle Woodland groups in the Mid-Atlantic region. The slow transition toward sedentism continued during this period, with major settlements tending toward low-lying wetland and estuarine environments (Sperling 2008:25).

The Delmarva Adena mortuary complex, so called for its elaborate use of imports from the Ohio River Valley, is a Coastal Plain phenomenon that spans the transition from Early to Middle Woodland. Lowery (2012:20) postulates that the Ohio Valley materials at Delmarva Adena sites were exchanged for whelks and shark's teeth. While the focus of this complex is on the Eastern Shore, a stratified site with a Delmarva Adena component was identified at Pig Point (18AN50), on the east bank of the Patuxent River, in 2009 (Luckenbach 2013:4). Pig Point appears to have been used as a ritual center for centuries prior to the appearance of Adena artifacts, but Delmarva

Adena burial pits represent some of the largest features identified and excavated at the site (Luckenbach 2013:6). They attest to a high level of ritual and possibly sociopolitical complexity among Coastal Plain Native Americans during the Early and Middle Woodland periods, as well as a long-standing relationship between groups on the Eastern and Western Shore.

By the Late Woodland Period (ca. AD 900-1630) there is evidence for the cultivation of corn, beans, and squash, and also for the establishment of semi-permanent villages. Despite this, the long-range trade between the Coastal Plain and the Ohio Valley seems to have broken down by this point. Horticulture played a major role in subsistence, and while gathering and fishing remained important, these activities were scheduled around the horticultural cycle (Hatch et al. 1986:103).

During this period, settlements were generally positioned to take advantage of productive agricultural soils on floodplains, with smaller satellite camps established near waterways and wetlands to exploit deer, fowl, fish, and shellfish (Strickland et al. 2015:63). Some village sites were fortified with stockades, and smaller hamlets were usually dispersed no more than a few kilometers from the main village. This pattern of land use was observed at the time of European contact. Material culture influences during this time reflect the development of ceramic and cultural traditions specific to localized geographic areas.

Contact Period Overview

The three centuries preceding sustained European contact witnessed the development of political organizations spanning multiple Native American groups. Oral traditions recorded by the Colonial government in 1660 indicate that the Piscataway paramount chiefdom, which dominated the Potomac Drainage when European settlers arrived, may have united under an Eastern Shore ruler as early as AD 1300 (Strickland et al. 2015:15–16). This roughly coincides with the appearance of ossuary burials in the Potomac Drainage, a mortuary practice that originated on the Eastern Shore. Additionally, pottery types prevalent in the Maryland and Virginia Piedmont began appearing in Coastal Plain settlements concurrent with the abandonment of palisaded villages in that region. It has been suggested that these changes in material culture in the latter half of the Late Woodland Period reflect mass migration into the Potomac Drainage from the Piedmont, the Eastern Shore, or both (Potter 1993).

The Piscataway were one of the powerful nations in the Middle Potomac River valley during the fourteenth century, controlling territory from what would become St. Mary's County to north of the Potomac River fall line. The Piscataway and their neighbors spoke an Eastern Algonquian language closely related to the language of the Powhatan in Virginia and the Delawaran languages of Delaware and New Jersey (Mackie 2006:16). Piscataway people practiced slash-and-burn agriculture, cultivating corn, beans, and squash from permanent villages, while also focusing on hunting and gathering from seasonal camps (Strickland et al. 2015). By the beginning of the fifteenth century, most or all of the settlements in southern Maryland were likely tied to the Piscataway. Several large villages or towns are known to have been under the political influence of the Piscataway, who were based in Moyaone on Piscataway Creek, but groups within the paramount chiefdom kept their distinct identities.

During the fifteenth century, increasing pressure was placed on the Piscataway by the Susquehannock, pressing southward from the north and raiding local Algonquian groups, the Massawomeck, raiding eastward on the Potomac River, and the Powhatan, who had expanded to encompass most of Virginia's Algonquian peoples by 1600. In the late sixteenth century, Spanish missionaries may have explored parts of southern Maryland, but it was not until John Smith's voyages on the Potomac in 1608 that documented contact occurred between Europeans and Native Americans in the region. Smith's map notes 100 warriors located at Moyowances, or Moyaone, in 1608. Population estimates of the entire Piscataway nation based on Smith's map range from 2,000 to 7,000 individuals, numbers that had likely been drastically reduced before Smith's voyage through hostilities with the Massawomeck and Susquehannock. Further hostilities with these groups and the Patowomeck, a tributary to the Powhatan closely related to the Piscataway, continued to reduce the Piscataway population (Strickland et al. 2015:20).

Early relations between the Piscataway and European settlers, then located primarily in Virginia at Jamestown, were generally trade-oriented, with the Algonquians providing food and furs in exchange for European-made items such as copper, glass beads, and iron. Rice (2009) notes that the Jamestown colonists viewed the Potomac-area as a "granary..., peopled with intact and autonomous Indian communities capable of providing [corn and furs] to the small, struggling colony" (82). The early effects of colonialism on Indigenous populations have been studied at the Posey site (18CH281), located at the mouth of Mattawoman Creek. The Contact Period Native Americans at this site continued to use traditional ceramics and lithics while also beginning to utilize European imports, such as stoneware and sheet copper (Rivers-Cofield 2009). Dates for this site range from 1600-1680, meaning part of the assemblage predates the Maryland Colony and reflects Native Americans adapting to European technologies prior to the long term social and political effects of sustained contact.

The Eastern Shore was home to the first permanent colonial settlement in Maryland, founded on Kent Island in 1631. Run by William Claiborne, a Virginia Protestant and the Secretary of State for the Virginia Colony, the settlement was meant to establish a fur trading mercantile empire in the Upper Chesapeake. By 1634, colonists had established a fort, a church, a shipyard, and a store, and their population consisted of 49 taxable individuals. Most of these individuals were farmers who lived on small farm plots, though Claiborne and a few others lived on large plantations staffed by a small number of indentured servants and African slaves. Most of the agricultural workers were engaged in the production of tobacco, a cash crop that had proven extremely profitable in Virginia, and subsistence farming. The fur trade was initially successful, with Claiborne procuring furs from the Susquehannocks on the northern reaches of the Chesapeake and shipping them to international markets (Truitt 1965:4). The creation of the Province of Maryland in 1632 threatened Claiborne's influence over the region. Claiborne's settlement had been established as part of the Virginia Colony, but was located within the newly formed Province of Maryland granted to the first Lord Baltimore in 1632.

Europeans arriving in the vicinity of the Study Area encountered the Piscataway paramount chiefdom based in Moyaone, at the mouth of what is now Piscataway Creek (Strickland et al. 2015:20). The Piscataway and their neighbors spoke an Eastern Algonquian language closely related to the languages of the Powhatan in Virginia and the Lenni Lenape in Delaware and New

Jersey (Mackie 2006:16). A number of separate Native American groups existed within the Piscataway paramount chiefdom including the Chaptico, Moyoane, Nanjemoy, and Potapaco (Strickland et al. 2015:35). In 1634, the Yeocomico, a small group independent of both the Powhatan and Piscataway paramount chiefdoms, sold a former village site to the English to serve as the new colonial capital of Maryland. This village is now known as St. Mary's City and is located southwest of the Study Area (Galke 2004:96).

While early relations between the fledgling colony of Maryland and the Piscataway are generally characterized as peaceful, the complex Indigenous political landscape of the mid-seventeenth century encouraged cordial relations between the Piscataway and the European colonists. While the Maryland colony avoided the violent hostilities experienced in Virginia, the Charter of Maryland illustrates the colonists' views of their indigenous neighbors, describing the region as a "Country hitherto uncultivated...[and] partly occupied by Savages, having no knowledge of the Divine Being." (Strickland et al. 2015:21).

Several regulations were enacted during the early years of the Maryland colony to restrict and regulate contact between the colonists and Piscataway. In 1638, the Maryland Assembly passed a law requiring a license to trade with American Indians. The 1648 "Act Touching Pagans" prohibited the sale or provisioning of guns or ammunition to American Indians. The 1649 "Act Touching Indians" prohibited the transportation of American Indians out of the province and reiterated the prohibition of providing guns to anyone with Indian parentage. This subtle revision to the earlier act indicates a significant population of people of mixed English-Indian descent or of American Indians raised or living in English communities. These and other laws aimed to extend colonial authority over the indigenous population (Cissna 1986; Strickland et al. 2015).

In 1659, a Piscataway envoy met with Governor Calvert at St. Mary's, detailing aggression by the Seneca (referring to the Five Nations of the Haudenosaunee in general) and requesting assistance strengthening their fort. Maryland eventually allied with the Susquehannock against the Five Nations, an alliance that would last for over a decade. In 1666, a major treaty was signed between the English colonists and twelve Indigenous groups residing in the area claimed by the Calvert family. Of particular importance are articles that formally acknowledge the Governor's power to select new *tayacs*, subjecting the Piscataway to English authority, an article that states the Governor shall designate a place for the signees that is safe from aggression by foreign Indians, and an article that allowed the Governor to establish a reservation (Cissna 1986; Strickland et al. 2015).

In 1668, the Assembly's Upper House designated land between the head of the Mattawoman and Piscataway Creeks off-limits to English settlers, with the land formally surveyed as a reservation in 1669 (Marye 1935). Failure to agree to the terms of the treaty meant the American Indians would be declared enemies of Maryland. Significant numbers of American Indians from the region left rather than sign the treaty, with some settling along the Rappahannock River in Virginia, others moving north to join the Susquehannock, and still others assimilating into English society (Cissna 1986; Ferguson and Stewart 1940).

In 1680, the Piscataway relocated to Zekiah Swamp in response to increased encroachment by English settlers and other Indigenous groups. Unable to leave their fort to hunt or plant crops, the Piscataway petitioned Maryland for aid in 1681 and received food and ammunition. Later in 1681, Lord Baltimore sent Englishmen to help garrison Zekiah Fort. Lord Baltimore also used the opportunity to demand the Choptico, still living in St. Mary's County, join the Piscataway at Zekiah Fort for their own protection. Peace between the Seneca, Maryland, and the Piscataway was reached in 1685, with the Piscataway eventually abandoning Zekiah Fort during the 1690s, with the *tayac* and a large number of the nation relocating to Virginia (Strickland et al. 2015).

European settlement spread north from St. Mary's City into what is now Charles County which continued to affect Indigenous groups. The first European land patents concentrated along major rivers and streams, as early tobacco culture required proximity to water routes. The Potomac River and its tributaries served as the most important transportation routes during the seventeenth century and English families patented numerous tracts of land along the river system.

By 1697, the Maryland government was interested in having the Piscataway return, a cause supported by Virginia and intended to increase control of the group. By 1699, many of the Piscataway had relocated to Conoy Island in the Potomac River, leading the group to be referred to as the Conoy throughout the eighteenth century. In 1700 and 1701, the Piscataway *tayac*, Othotomaquah, sold tracts of land between Mattawoman and Piscataway Creeks to the English (Strickland 2015). By 1718, the Piscataway abandoned Conoy Island and resettled in Pennsylvania, at Conoy Town along the Susquehanna River, where they remained until 1743 when European encroachment necessitated relocation (Van Doren and Boyd 1938).

While part of the Piscataway nation had relocated north, some Piscataway joined other groups including the Susquehannock and Tuscarora, while still others remained in southern Maryland, assimilated into English society. As the Maryland government did not regard American Indian as a racial classification, it is difficult to historically trace those who assimilated into English society. This lack of identification ultimately led to the administrative erasure of Indigenous identity in Maryland (Davidson 1998). Despite the many hurdles, the Piscataway people have persevered and maintained a place in their ancestral lands. In 2012, the Piscataway Indian Nation and the Piscataway Conoy Tribe of Maryland were recognized by the State of Maryland (Strickland et al. 2015).

Historic Period Overview

European exploration of North America in the latter part of the sixteenth century culminated with the English settlement of the Chesapeake region, beginning with the establishment of Jamestown in 1607. Settlement in what is now the State of Maryland began in the 1630s, as Cecil Calvert, second Lord Baltimore, began exercising his proprietary rights granted originally to his father by Charles I. In November of 1633, English settlers led by Leonard Calvert set sail on the *Ark* and the *Dove*. Upon arrival in March of 1634, the settlers quickly constructed a fort and set out to establish the governing system mandated in the Maryland Charter (Fausz 1984; State of Maryland n.d.). Their settlement was named St. Mary's City and became the first capital of Maryland.

Cecil Calvert, second Lord Baltimore, envisioned the colony functioning in a manorial system that fostered self-sufficient plantations “with all such royalties and priviledges, as are usually belonging to Mannors in England,” although manor owners would ultimately serve Lord Baltimore’s interests (Hall 1910). Calvert, one of the few practicing Catholics in the English court at a time when Catholicism was marginalized or repressed, required that his new colony also practice religious tolerance, intending to create a haven for persecuted English Catholics in North America (St. Mary’s County, MD n.d.; State of Maryland n.d.).

Trade relations with surrounding Native American groups continued in the early colony, with tensions between groups continually waxing and waning amidst the expansion of the colony. Trade with native groups became so integral to the burgeoning colony’s economy that in 1638 a law was passed that required a license to trade with Native Americans. This law served to control the price of indigenous goods and attempted to prevent colonists from conspiring with native groups against the ruling government (St. Mary’s County, MD n.d.; State of Maryland n.d.).

While settlement within and around St. Mary’s City was slow, reaching only ten listed dwellings in town by 1642, the population throughout the surrounding area rose to 400 persons as 2,000-acre parcels of land were granted to individuals who brought servants and other laborers into the colony (King et al. 2017; Maryland State Archives 1984). In 1637, St. Mary’s County was formed as the first in the Maryland Colony. Plantations were established across the fertile landscape of St. Mary’s County and tobacco quickly became the colony’s cash crop and most important export. Only a small minority of St. Mary’s County’s population at this time was free, as most of the colonists arrived as indentured servants or enslaved people (St. Mary’s County, MD n.d.; State of Maryland n.d.).

While the County and state prospered from the tobacco economy during the mid-seventeenth century, St. Mary’s City continued struggling to develop into a formal city. In 1676, Governor Charles Calvert stated that St. Mary’s City is “...where the General Assemblye and Provincial Court are kept and whither all shippes tradeing there doe in the first place resort, but it can hardly be called a town...” (Archives of Maryland n.d.:265–266). The Colony’s economy, however, began to worsen after 1660 as the overproduction of tobacco in Maryland and Virginia led to a steady decrease in tobacco prices (St. Mary’s County, MD n.d.; State of Maryland n.d.).

The Calvert’s continually faced challenges to their sovereignty during the seventeenth century, with early skirmishes including a battle with Virginian traders on Kent Island in 1635-1638 and the so-called Plundering Time of 1644-1646. In 1654, during the English Civil War, the Calvert’s’ governor William Stone was deposed and replaced with a Commission whose membership was limited to Puritans. Stone, with the backing of Oliver Cromwell and the British Parliament, attempted to retake his position by force in 1655, only to be defeated at the Battle of the Severn. Puritan rebels maintained de facto control of the colony until 1660, when the Calvert’s’ proprietorship was restored. By 1689, a combination of religious tension and economic hardship resulted in a successful Protestant coup and the Protestant leader, John Coode, requested royal governors to preside over the colony (Boyer et al. 2011:94).

Toward the end of the seventeenth century, the focus of settlement in the Maryland Colony had shifted from the Potomac and Patuxent River drainages to the areas around the Severn River and the Eastern Shore. This made governance from St. Mary's City increasingly difficult, and the capital was moved to a more central position at Anne Arundel Town (now Annapolis) in 1695. By this time, located on the periphery of the state, St. Mary's City lost much of its initial importance and fell into line with the agricultural nature of St. Mary's County (St. Mary's County, MD n.d.; State of Maryland n.d.).

Large plantations continued to develop into the eighteenth century that relied heavily on a workforce made up of enslaved Africans and their descendants. The plantation remained the basic component of settlement and economy in the Chesapeake Bay area and became increasingly elaborate, with the wealthiest constructing large houses made from brick, an array of outbuildings, and lavish formal gardens. As a result, towns and urban centers were slow to establish until after the American Revolution, despite attempts by the General Assembly to encourage their growth through acts like the Tobacco Inspection Act of 1746. During the eighteenth century, the two most important towns in Maryland were Annapolis in Anne Arundel County and Chestertown in Kent County. Leonard Town was founded in 1728 and incorporated in 1858 (State of Maryland n.d.).

Rivers served as the commercial highways of Colonial Maryland and, with the Chesapeake Bay to the east, the Patuxent River to the north, and the Potomac River to the south, St. Mary's County was well-suited to take advantage of this trade. Settlement took place along the lower reaches of the major rivers and only later extended into the interior. However, the rivers that had proved an economic boon during times of peace became a major weakness during times of war. In 1776, a fleet of British naval vessels attempted to make a base at the mouth of the St. Mary's River. Unsuccessful, the fleet withdrew, but British vessels continued to harass the populace and plantations of the County for the duration of the American Revolution, causing significant financial damage. Despite these attacks, Griffith's 1794 map illustrates that, after the conclusion of the war, much of the County's population remained concentrated along its coastline (St. Mary's County, MD n.d.; State of Maryland n.d.).

The War of 1812 brought renewed harassment for the residents of St. Mary's County at the hands of the British as the British Navy blockaded the Chesapeake and routinely conducted raids along the coastline. At one point the British launched an invasion force of between 2,000 and 3,000 men against the watch station at Point Lookout and later took possession of Leonardtown, the County seat (Hammett 1991:104–109). Attacks and raids continued to be conducted throughout the course of the war until its end in 1815 (St. Mary's County, MD n.d.; State of Maryland n.d.).

Based as it was upon the cultivation of tobacco to the exclusion of most other crops, the financial success of St. Mary's County largely depended upon the cheap supply of enslaved labor. As the nineteenth century progressed, the enslaved population increased until, by the middle of the century, they constituted more than half of the County's population. Despite this supply of cheap labor, the financial position of the white residents of the County actually diminished during this period as a combination of soil depletion and low tobacco prices took a toll upon the coffers of the

plantation owners and many moved to more fertile lands to the west (Brugger 1988:158–159; Wesler et al. 1981:126).

By the onset of the Civil War, the County had still not adopted the mixed agricultural and industrial economy that was becoming prevalent in neighboring counties and retained a dependence upon the plantation system. Given their reliance on an enslaved workforce, it is not surprising that St. Mary's County's white populace often provided both supplies and service to the Confederacy. Conversely, a significant number of the County's Black population went on to serve in U.S. Colored regiments, with many assigned to be prison guards at the infamous Camp Hoffman (Maryland Park Service n.d.). The camp occupied Point Lookout and had originally served as resort, then as a hospital, and finally as prison camp for Confederate soldiers (National Park Service n.d.). Along with Andersonville in Georgia and Elmira Prison in New York, Camp Hoffman quickly became one of the war's most notoriously deadly prison camps due to extreme overcrowding (St. Mary's County, MD n.d.; State of Maryland n.d.).

The end of the war and the emancipation of the Black population of the County ushered in a new era for Maryland's southern Western Shore counties. Without enslaved labor, tobacco monoculture became unprofitable and new farming models began to be adopted. Slowly, St. Mary's County adjusted to the new forms of share cropping and tenant farming, although tobacco would still be cultivated in the County into the twentieth century (Wesler et al. 1981:88). In the wake of the slump in tobacco farming, new industries took on economic prominence in the County, such as canneries and fisheries (St. Mary's County, MD n.d.; State of Maryland n.d.).

Little changed within the County during the first half of the twentieth century until the creation of the Naval Air Station Patuxent River in 1943 and the associated town of Lexington Park. St. Mary's College of Maryland was formed from the St. Mary's Seminary Junior College in 1964. While employment within the tobacco and seafood industries continued to shrink during the twentieth century, employment within tourism and the federal government has increased. St. Mary's County remains rural and agricultural, though it has increasingly become a bedroom community, with residents commuting to the Metropolitan D.C. area (St. Mary's County, MD n.d.; State of Maryland n.d.).

From the late eighteenth century through the mid-twentieth century, the County's population remained constant at around 15,000 people. Since that time, the population of St. Mary's County has dramatically increased due to the presence of the Naval Air Station. A large Amish population relocated from Lancaster County, Pennsylvania to St. Mary's County in 1939 and continue to live in St. Mary's and Charles counties. The population of St. Mary's County as of the 2020 census is 115,000 (US Census Bureau n.d.).

The St. Mary's County Sports Complex

Historic Maps

Captain John Smith was the first European to record and map the territory that would later become St. Mary's County. On the 1608 John Smith *Map of Virginia*, the Study Area vicinity is located along the western shore of the Chesapeake Bay, between the Potomac and the Patuxent Rivers (Figure 3-1). No settlements are depicted in the immediate vicinity of the Study Area, but several American Indian villages are depicted to the north and west, along the Patuxent and Potomac Rivers.

Augustine Herrman's 1673 *Map of Virginia and Maryland* is the first to include a detailed depiction of what is now known as St. Mary's County (Figure 3-2). The Study Area vicinity is located in an uninhabited portion of St. Mary's County. St. Mary's City, the first capital of Maryland, is located to the south (left of the page break) along the east bank of St. George's River. Settlement in St. Mary's County generally consists of plantations clustered along the major waterways of the Chesapeake Bay and the Potomac and Patuxent Rivers and their major tributaries. No settlements are noted in the Study Area vicinity.

Dennis Griffith's 1795 *Map of Maryland* depicts waterways, transportation routes, political features, and the location of important industries and landowners (Figure 3-3). Leonard Town is west of the Study Area vicinity, at the terminus of Brittons Bay, St. Mary's City and St.



Figure 3-1. Detail of the 1608 *Map of Virginia* by John Smith showing the location of the Study Area vicinity (Smith and Hole 1624).

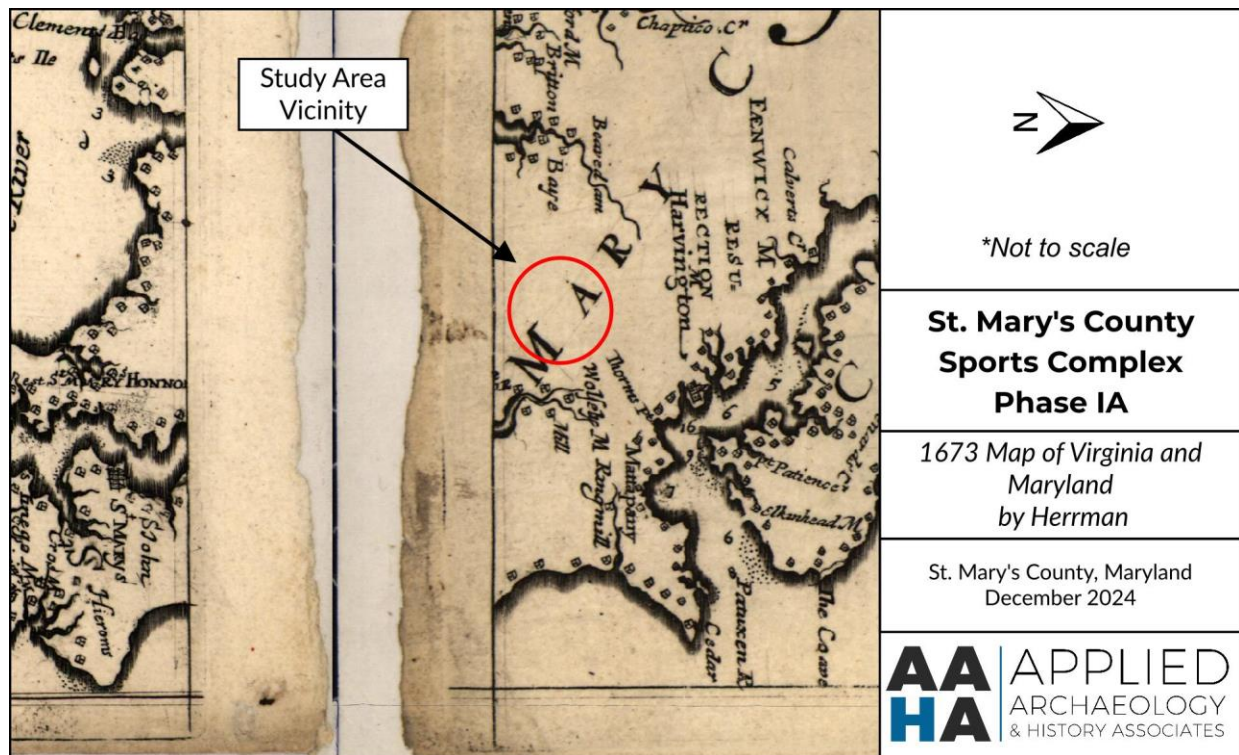


Figure 3-2. Detail of the 1673 Map of Virginia and Maryland by Herrman showing location of the Study Area vicinity (Herrman 1673).

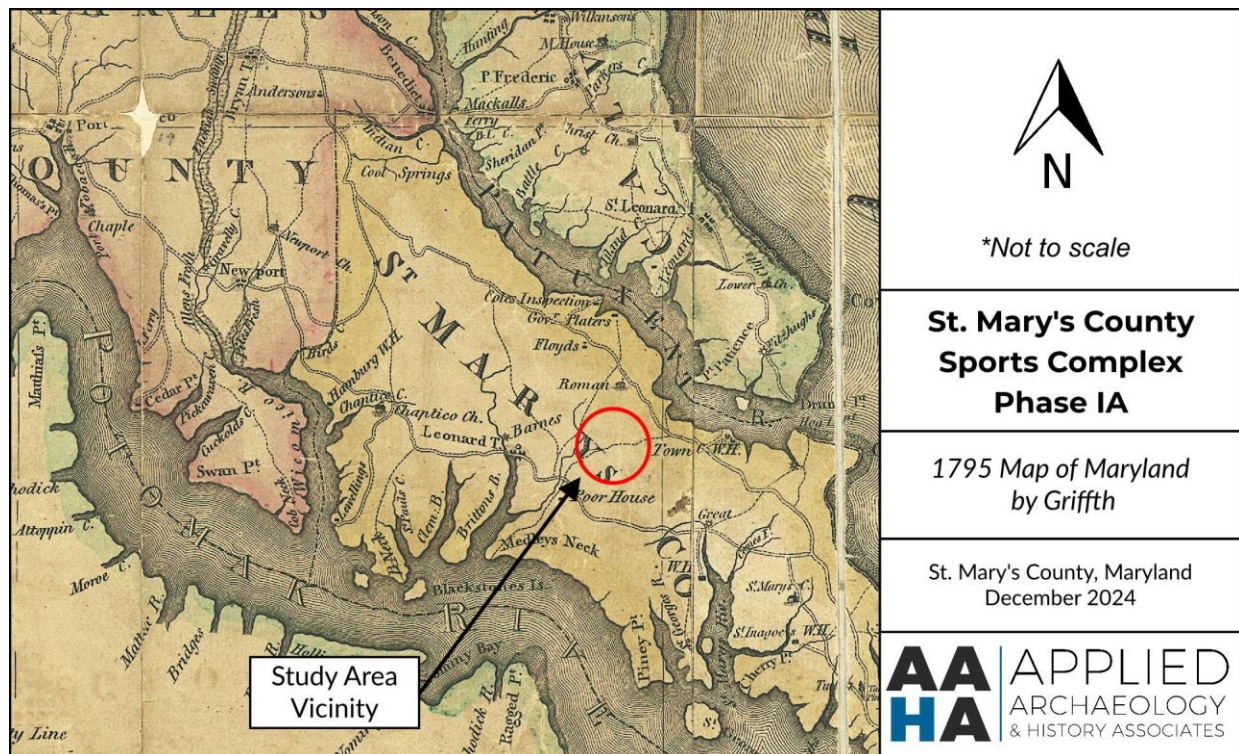


Figure 3-3. Detail of the 1795 Map of Maryland by Griffith showing the location of the Study Area vicinity (Griffith 1795).

Inagoes [sic] to the south. Several warehouses are noted along the coast, including ones to the northwest, east, and south of the Study Area. An inspection station is located northwest of the Study Area vicinity along the Patuxent River. Several mills are located in the area, including one to the southeast of the Study Area, near the area that would become the community of Great Mills. Other noted structures include a poor house, a Roman Church, and Floyd's tavern. Governor Plater's residence is located northeast of Floyd's tavern. The Study Area vicinity is located between two unnamed roads that roughly follow current MD-5 and MD-235. No settlements are noted within the Study Area vicinity.

In his 1822 map of *Maryland*, DeSilver depicts county lines, major roads and waterways, landmarks, and large towns (Figure 3-4). No structures are depicted on the map. The Study Area vicinity is situated between the two unnamed roads first depicted by Griffith. Located west of the Study Area vicinity, the town of Lennard is the only town depicted in St. Mary's County alluding to the rural character of the county. The St. George's River and Piney Point are located south of the Study Area vicinity.

The 1892 *Leonardtown, MD* 15-minute USGS topographic quadrangle depicts the topographic features of the area as well as the location of transportation features, towns, and select structures (Figure 3-5). A tributary of the St. Mary's River extends west and north from the southeast corner of the Study Area. The Study Area appears to slope toward the southeast from an upland flat in the western Study Area. The town of California is located northeast of the Study Area with Leonardtown located to the west. A road crosses from east to west across the central portion of

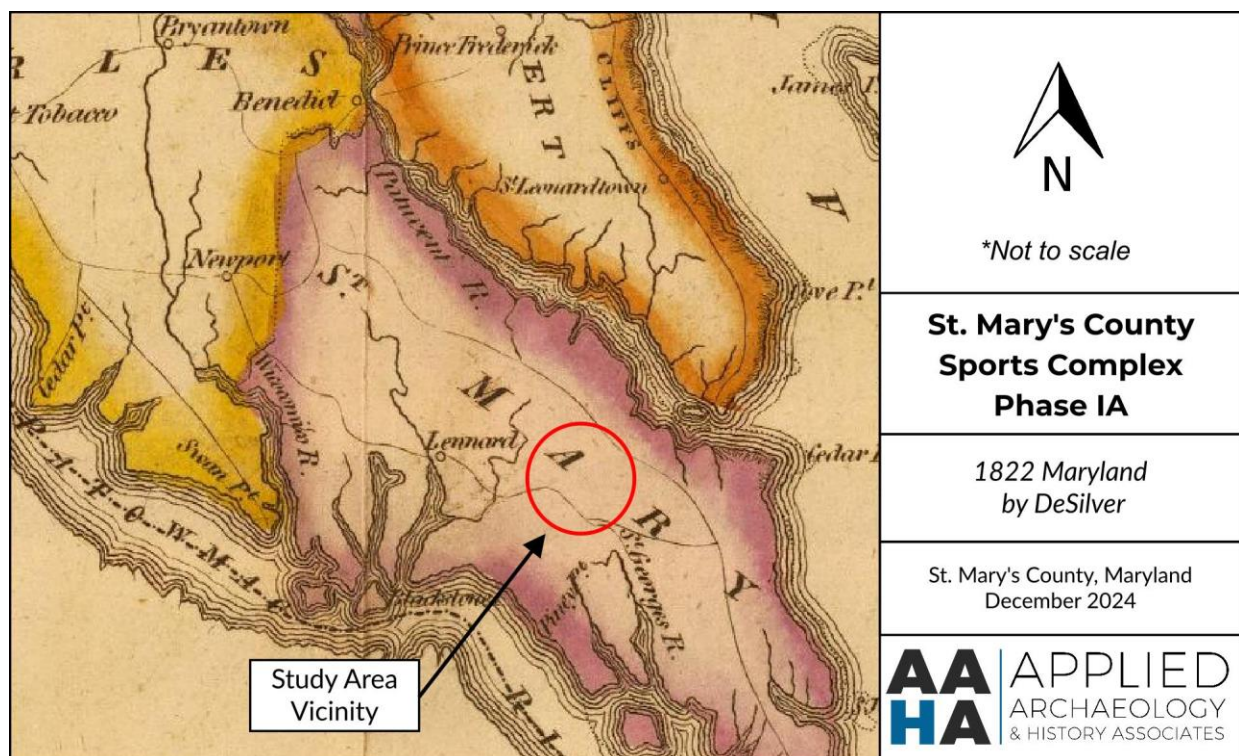


Figure 3-4. Detail of the 1822 map of *Maryland* by DeSilver showing the location of the Study Area vicinity (DeSilver 1822).

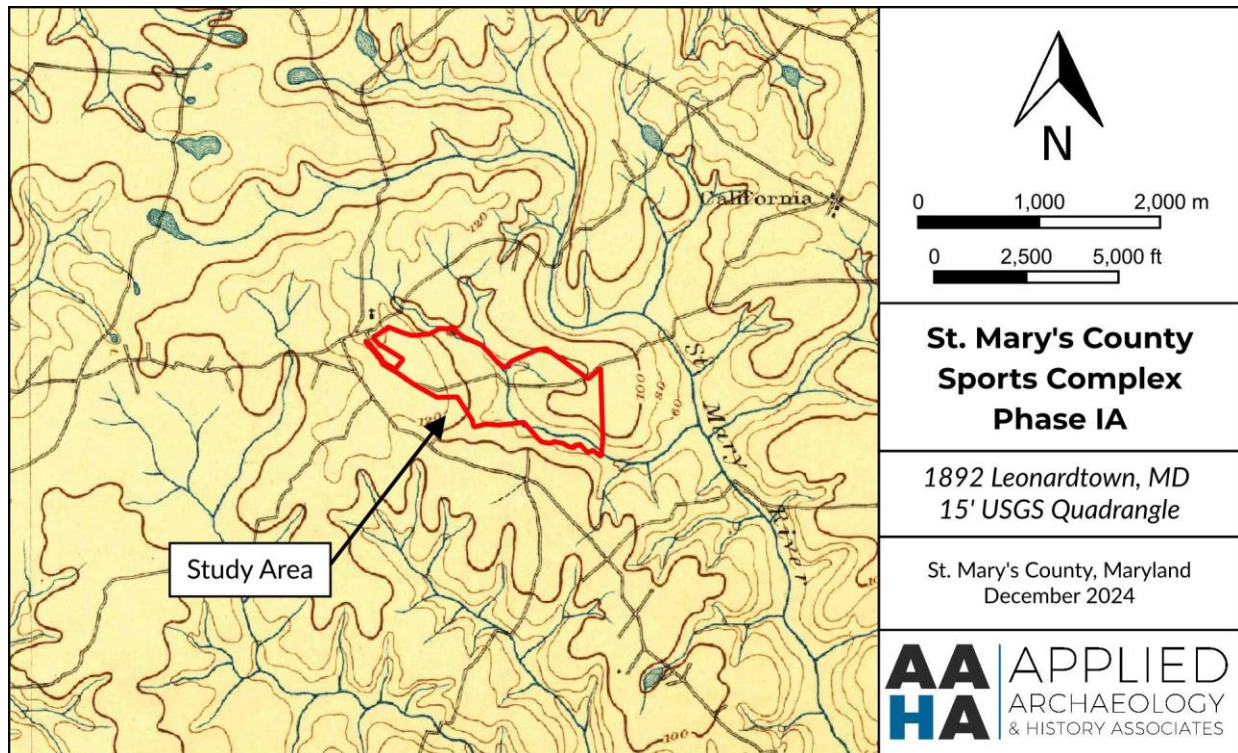


Figure 3-5. Detail of the 1892 *Leonardtown, MD* 15-minute USGS topographic quadrangle showing the location of the Study Area (USGS 1892)

the Study Area. Modern Saint Andrews Church Road, which forms the western border of the Study Area, and Indian Bridge Road to the south appear to be in their modern locations. St. Andrews Church is located across Saint Andrews Church Road from the western extent of the Study Area.

The 1901 *Leonardtown, MD* 15-minute USGS topographic quadrangle provides additional structural detail and shows changes in the area at the end of the nineteenth century (Figure 3-6). No topographic changes are noted. The Study Area is located in the district of Centerville. It remains bisected by an unimproved road and a tributary of the St. Mary's River. The nearest town remains California to the northeast. One structure is depicted within the Study Area, located north of the unimproved road that bisects the Study Area in the western portion.

The 1939 *Leonardtown, MD* 15-minute USGS topographic quadrangle provides additional topographic and structural details (Figure 3-7). The St. Mary's River is depicted within the Study Area, entering from the southeast corner and traveling north. A tributary branches to the west along the northern boundary of the Study Area while the main channel traveling north. Wetlands are shown along both banks of the river. Better topographic detail shows steep slopes bracketing the waterways, with flat terraces noted in the western and eastern portions of the Study Area. Population growth is seen through the increase of roadways, both improved and unimproved, in the area. The unimproved road seen in previous maps bisecting the Study Area now terminates in the center of the Study Area near a structure. The structure may be the same as the one seen on the 1901 map, though the location is slightly different. No other structures are

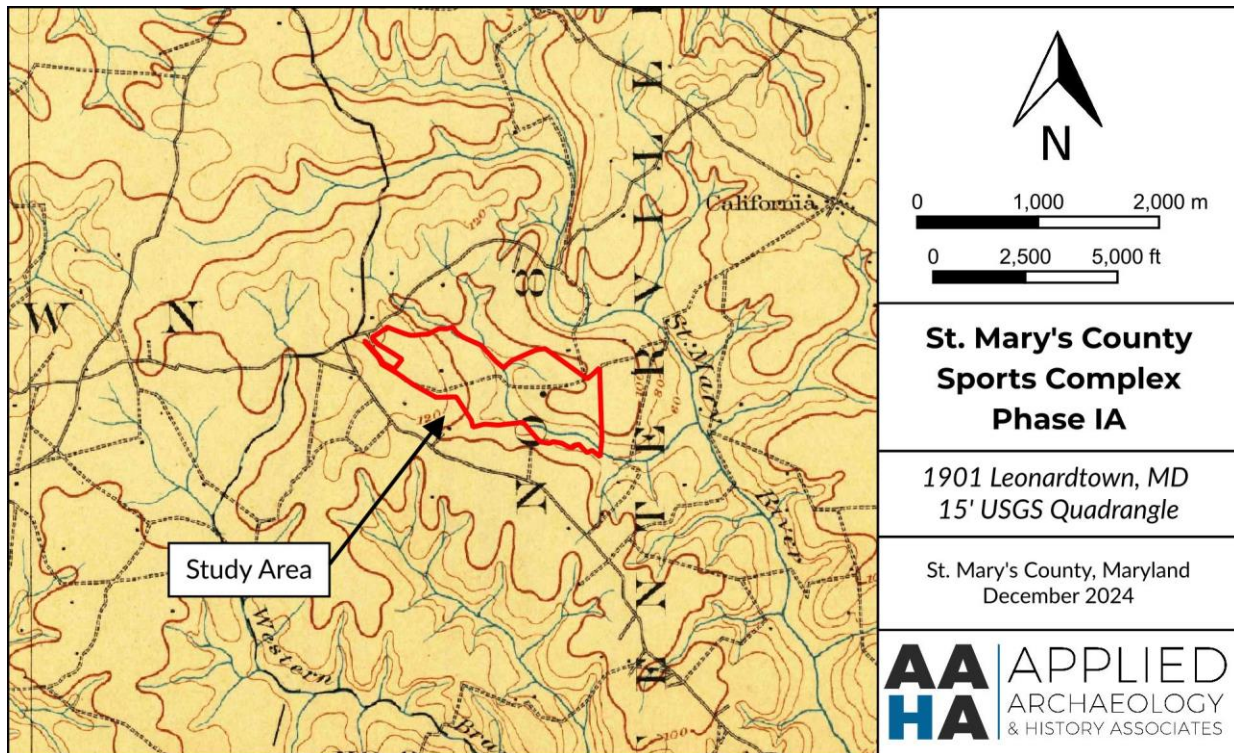


Figure 3-6. Detail of the 1901 Leonardtown, MD 15-minute USGS topographic quadrangle showing the location of the Study Area (USGS 1901).

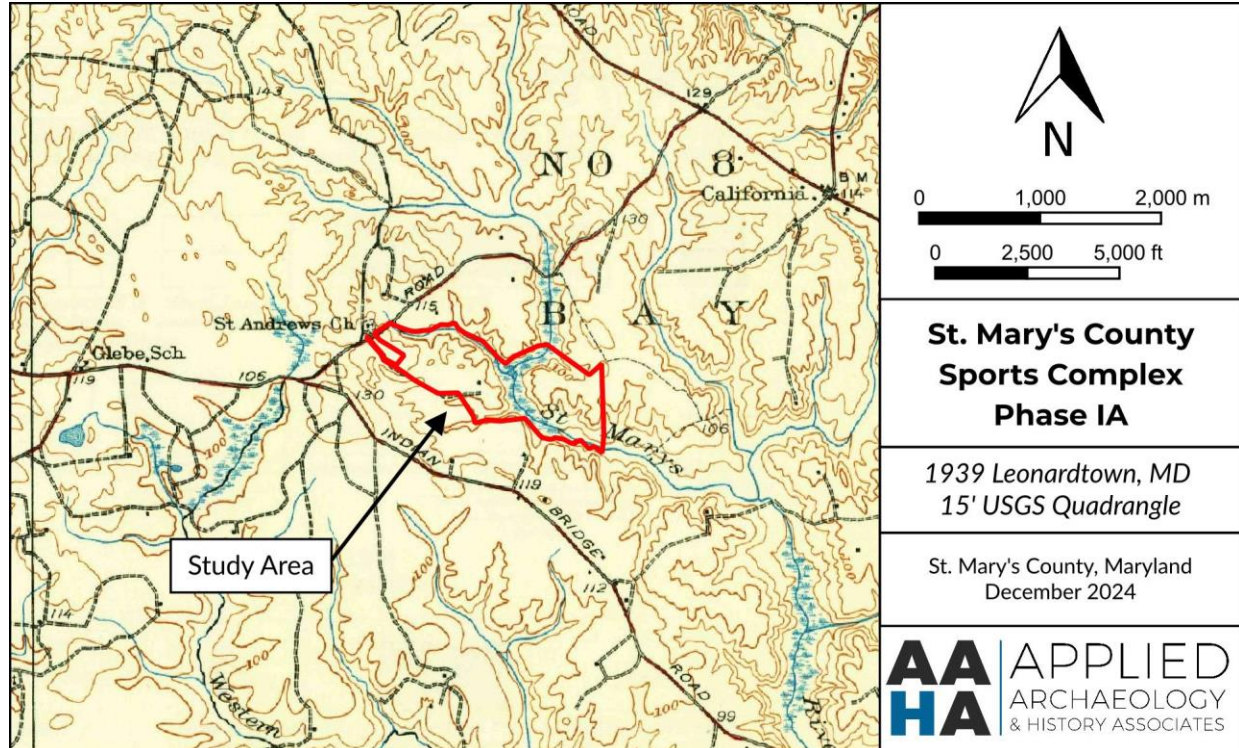


Figure 3-7. Detail of the 1939 Leonardtown, MD 15-minute USGS topographic quadrangle showing the location of the Study Area (USGS 1939).

noted in the Study Area, though several are noted in the area including St Andrew's Church across Saint Andrews Church Road.

The 1950 *Leonardtown, MD* 15-minute USGS topographic quadrangle shows minor changes in the area (Figure 3-8). No topographic changes are noted. A railroad operates to the east, passing through California and paralleling modern Three Notch Road (MD-235). Despite the growth of nearby Leonardtown, California, and the newly formed Lexington Park, the Study Area vicinity remains rural and largely forested. Newly cleared areas to the north and south of the Study Area include residences with outbuildings while Saint Andrews Church remains north of the Study Area. The unimproved road remains along the southwestern border of the Study Area. No structures are illustrated in the Study Area, with the structure noted on the 1939 map no longer extant.

The 1963 *Hollywood, MD* 7.5-minute USGS topographic quadrangle provides additional detail and illustrates the growth of this portion of St. Mary's County (Figure 3-9). Detailed topographic lines show the steep slopes present around the St. Mary's River within the Study Area. Wetlands are no longer noted. Flat areas are present in the eastern part of the Study Area near the eastern border and in the central-western portion. Much of the area remains wooded. The railroad to the east of the Study Area, now noted as a US Government railroad, runs through California to the Patuxent River Naval Air Station. Transmission line corridors are noted, running to the north and east of the Study Area. Both Saint Andrews Church Road and Indian Bridge Road have been improved. The residential areas to the north and south of the Study Area have slowly grown,

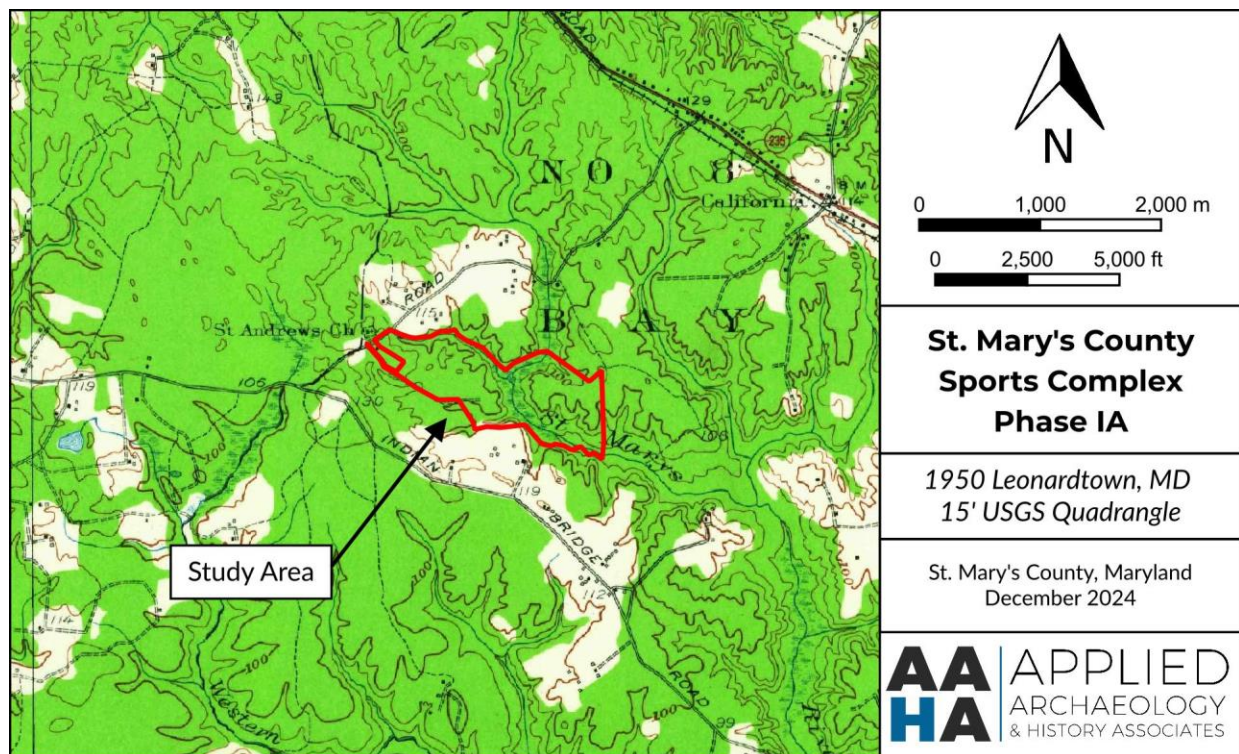


Figure 3-8. Detail of the 1950 *Leonardtown, MD* 15-minute USGS topographic quadrangle showing the location of the Study Area (USGS 1950).

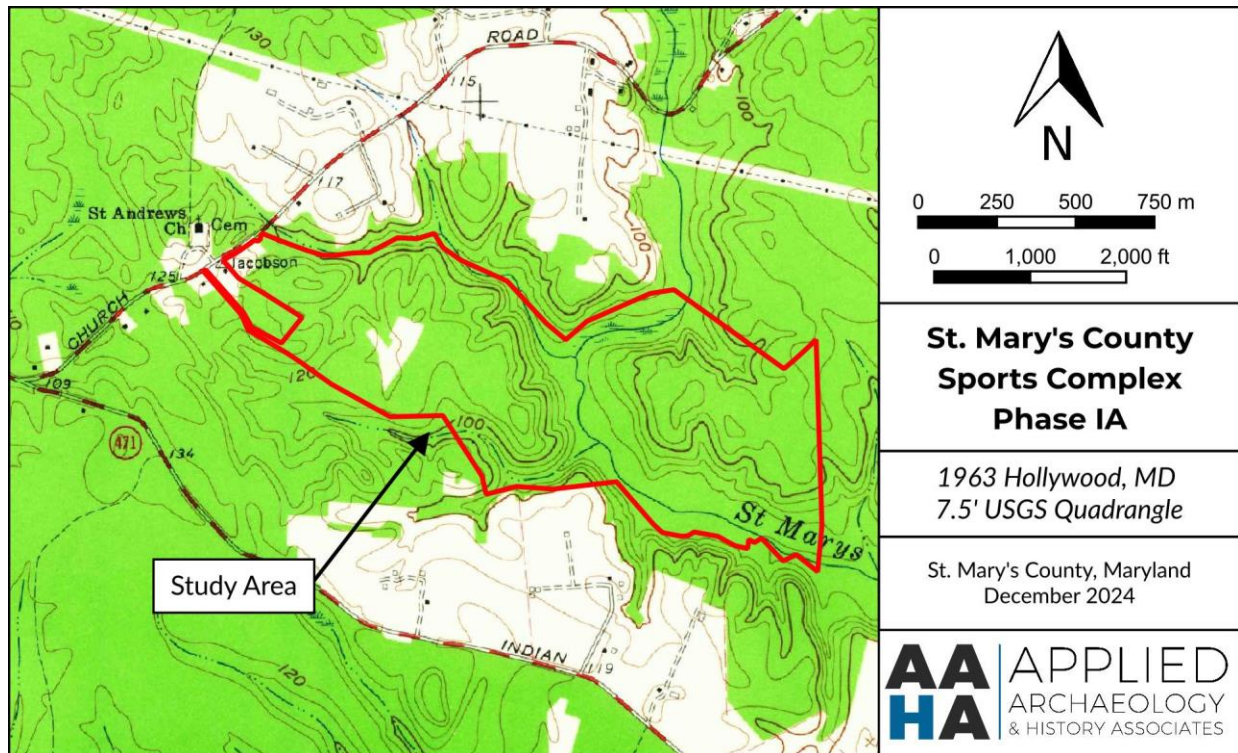


Figure 3-9. Detail of the 1963 *Hollywood, MD* 7.5-minute USGS topographic quadrangle showing the location of the Study Area (USGS 1963)

particularly the northern development. St. Andrews Church and associated cemetery are noted to the northwest of the Study Area. While no structures are within the Study Area, there are several south of Saint. Andrews Church Road immediately adjacent to the Study Area, including one labeled “Jacobson”. The unimproved roadway seen on previous maps within the Study Area is no longer present.

Aerial photographs provide additional information on land use and structure locations not present on historic maps. The earliest aerial photograph of the Study Area is from 1952 and shows the area as primarily wooded (Figure 3-10). A small, cleared area is present in the western half of the Study Area in the general area of the structure noted on the 1901 USGS map. Another small clearing is noted to the east, in a similar location to the structure noted on the 1939 USGS map. No structures are visible in the Study Area. The tree cover obscures the location of the St. Mary’s River within the Study Area and nearby areas. Farms are located to the north and south of the Study Area.

Major changes occurred in the surrounding area and within the Study Area as of 1981 (Figure 3-11). Housing developments have been built to the south and north, though some agricultural fields remain. The St. Mary’s River within the Study Area is visible, with a possible lake or wide portion of the river shown in the north-central Study Area. The eastern portion of the Study Area remains forested. Dirt roads appear throughout the central and western Study Area, with several structures noted, including on the western portion, and two in the central portion south of the River. It is unknown what these structures are. The two in the central portion are

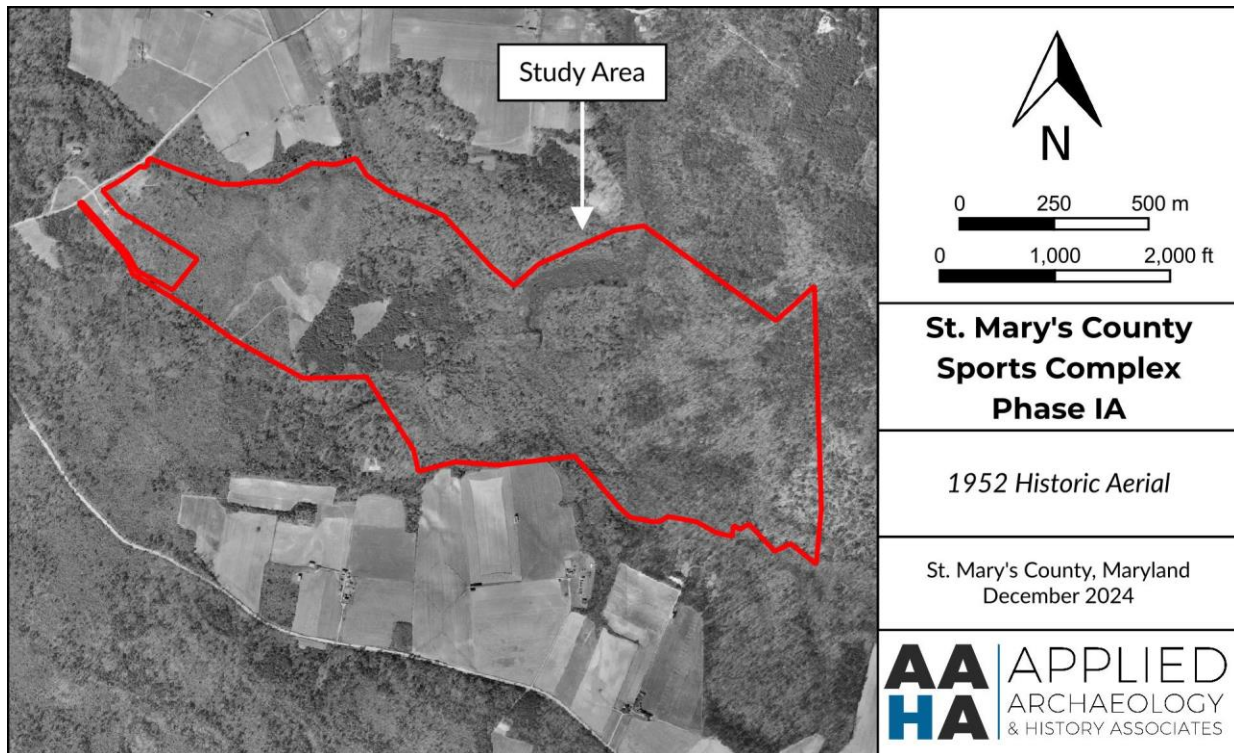


Figure 3-10. Detail of a 1952 aerial photograph showing the Study Area (Nationwide Environmental Title Research, LLC. 2023).

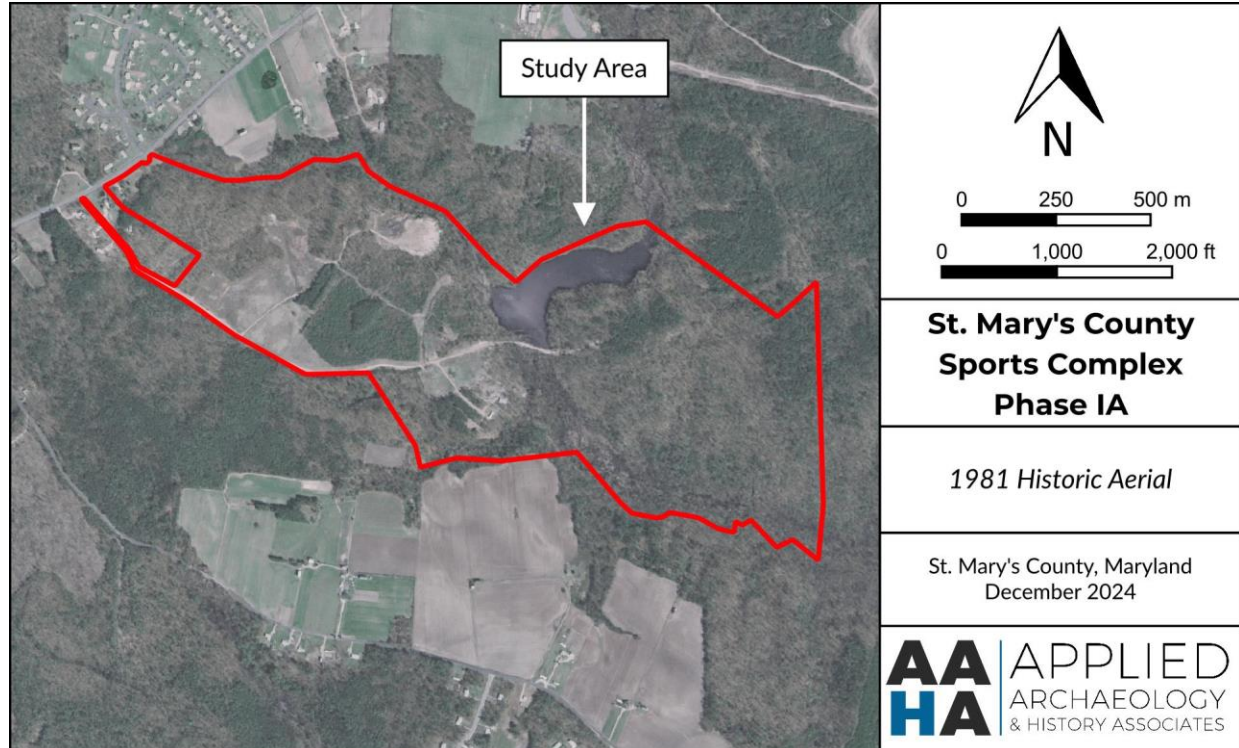


Figure 3-11. Detail of a 1981 aerial photograph showing the Study Area (Nationwide Environmental Title Research, LLC. 2023).

roughly house-sized while the structure in the west is likely an outbuilding. The central and western portions remain primarily wooded, though large cleared areas are noted along the southern boundary and in the north-central Study Area. The small site access road in the western portion follows an existing dirt road from Saint Andrews Church Road. A possible residence and driveway are located along the western boundary of the Study Area along Saint Andrews Church Road.

Significant changes occurred in the Study Area between 1981 and 2005 (Figure 3-12). A transmission line cuts through the western portion of the Study Area, running north-south. The St. Mary's River is visibly less wide than in 1981. The majority of the eastern Study Area is no longer forested. A large portion of the western Study Area has likewise been cleared, with a possible agricultural field located in the central portion on the flat, upland area. Forests remain in the far western portion, in the north and south, and along the St. Mary's River. Several dirt roadways traverse the Study Area, including the roadway that runs from Saint Andrews Church Road along the southern border of the Study Area before turning northeast, crossing the St. Mary's River, and exiting the Study Area at the northeast corner. Additional roadways branch off of this, including two west of the St. Mary's River that lead to structures and one to the east that terminates at the eastern border of the Study Area. Several structures are visible, including four in the center of the Study Area. The structure noted along the western border is no longer visible.

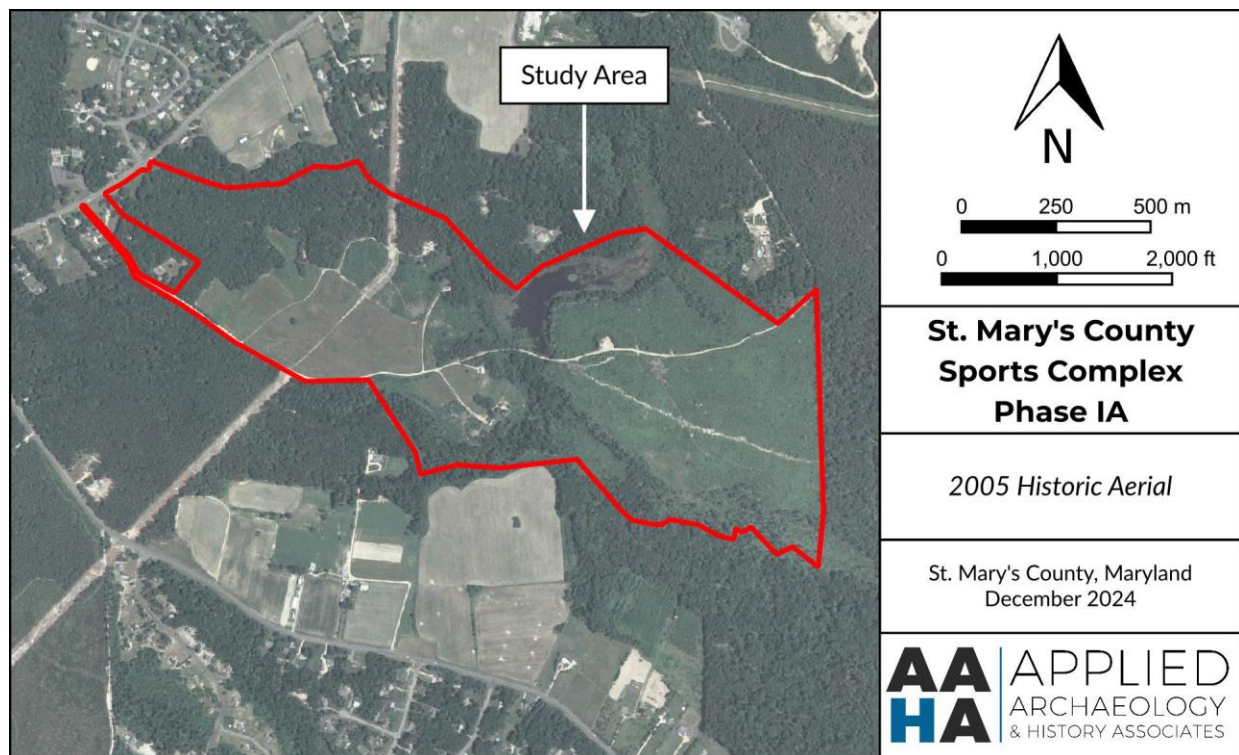


Figure 3-12. Detail of a 2005 aerial photograph showing the Study Area (Nationwide Environmental Title Research, LLC. 2023).

Previous Research and Recorded Sites

Two Phase I archaeological surveys have been conducted within one mile of the Study Area (Table 3-1). No surveys were undertaken within the Study Area. A Phase I survey was undertaken in 1981 (Epperson 1981) to the immediate southeast of the Study Area within St. Mary's River State Park. This survey identified 12 sites within the Park's boundaries including seven historic, one precontact, and four multi-component sites. The closest of these sites to the current Study Area is 0.85 miles to the southeast.

A Phase I survey was conducted in 1991 (Goodwin et al. 1991) to the north of the Study Area for the expansion of the Wildewood community. The survey identified four archaeological sites, three historic and one multi-component. The closest of these sites to the current Study Area is 0.7 miles to the northwest.

TABLE 3-1. PREVIOUS ARCHAEOLOGICAL SURVEYS WITHIN ONE-MILE OF THE STUDY AREA

CALL #	REPORT TITLE	AUTHOR, YEAR	COMPANY	SURVEY TYPE
ST 7**	Report on Archeological Reconnaissance of Proposed St. Mary's Lake Number Two, St. Mary's County, Maryland. MGS File Report 158 (Maryland Geological Survey)	Epperson 1981	Maryland Geological Survey	Phase I
ST 83	Phase I Archeological Survey of the Proposed Expansion, Wildewood Planned Unit Development, St. Mary's County, Md.	Goodwin et al. 1991	R. Christopher Goodwin & Associates, Inc.	Phase I

** - Survey is directly adjacent to the current Study Area.

Six archaeological sites have been identified within one mile of the Study Area, none of which are located within the Study Area (Table 3-2). Sites 18ST254, 18ST255, 18ST263, and 18ST264 are located southeast of the Study Area and were identified in 1981 (Epperson 1981) during a Phase I survey of the St. Mary's River State Park. Sites 18ST254 and 18ST263 were further investigated through Phase II excavations. Site 18ST254 is a multicomponent site featuring an Early Archaic through Early Woodland short term camp site along with a late eighteenth through mid-nineteenth century domestic site. Site 18ST255 is a multicomponent site that includes a Late Archaic short-term camp and an eighteenth through nineteenth century domestic site. Site 18ST263 is a grist mill dating to the mid-eighteenth through early nineteenth centuries. Site 18ST264 is a multicomponent site that includes precontact lithic scatter and historic artifact scatter. None of these sites have been evaluated for inclusion in the NRHP.

Sites 18ST628 and 18ST629 are northwest of the Study Area and were identified during the 1991 survey of the Wildewood community (Goodwin et al. 1991). The sites are both mid-eighteenth through early nineteenth century artifact concentrations with possible house sites. The sites were determined ineligible for the NRHP.

TABLE 3-2. PREVIOUSLY IDENTIFIED ARCHAEOLOGICAL SITES WITHIN ONE-MILE OF THE STUDY AREA

SITE #	SITE NAME	SITE TYPE	TOPOGRAPHIC SETTING	INVESTIGATION SUMMARY	NRHP STATUS
18ST254	Norris I	Precontact – Early Archaic to Early Woodland short-term camp; Historic – late 18 th – mid 19 th C domestic	Terrace, Hillslope	Phase I and II systematic	Not Evaluated
18ST255	Norris II	Precontact – Late Archaic short-term camp; Historic – 18 th and 19 th century domestic	Terrace	Phase I systematic	Not Evaluated
18ST263	Watts Mill	Historic – mid-18 th to early 19 th C grist mill	Floodplain	Phase I and II systematic	Not Evaluated
18ST264	Watts Expectation	Precontact – Lithic scatter; Historic – 18 th century scatter	High Terrace	Phase I systematic	Not Evaluated
18ST628	Wildewood 2 (WW-2)	Historic – mid-18 th to early 19 th century artifact concentration, possible house site	Low Terrace	Phase I	Not Eligible (1/13/1992)
18ST629	Wildewood 3 (WW-3)	Historic – mid-18 th to early 19 th century artifact concentration, possible house site	Low Terrace	Phase I	Not Eligible (1/13/1992)

Twelve (12) architectural resources have been identified within one mile of the Study Area, two of which are adjacent to the Study Area (Table 3-3). The resources include residences, a church, a tobacco barn, a state park, and a commercial building. St. Andrews's Episcopal Church, located north of the Study Area, was built in 1766 and is listed on the NRHP. Five resources along St. Andrews Church Road date to the mid- to late twentieth century and have been determined not eligible for inclusion in the NRHP. The Clark Evans tenant house, originally dating to the mid-nineteenth century, has been demolished and a new structure built making the original resource not eligible for the NRHP. The remaining resources have not been evaluated for inclusion in the NRHP.

TABLE 3-3. PREVIOUSLY IDENTIFIED ARCHITECTURAL RESOURCES WITHIN ONE-MILE OF THE STUDY AREA

RESOURCE #	SITE NAME	DATE	TYPE	NRHP STATUS
DOE-ST-0112	44769 St. Andrews Church Road	1970	Commercial	Not Eligible (2/17/2017)
DOE-ST-0113	44709 St. Andrews Church Road	1957	Residence	Not Eligible (2/17/2017)
DOE-ST-0114	44697 St. Andrews Church Road	1952	Residence	Not Eligible (2/17/2017)
DOE-ST-0115	44689 St. Andrews Church Road	1952	Residence	Not Eligible (2/17/2017)
DOE-ST-0116	44620 St. Andrews Church Road	1955	Residence	Not Eligible (2/17/2017)

RESOURCE #	SITE NAME	DATE	TYPE	NRHP STATUS
SM-66**	St. Andrew's Episcopal Church	1766-1767	Religion	Listed (3/14/1973)
SM-142	White Marsh Site	1825-1840	Residence	Not Evaluated (burned)
SM-325	Clark Evans Tenant House	Ca. 1842	Residence	Not Eligible (9/30/2015) (demolished)
SM-482	George E. Combs House	1903	Residence	Not Evaluated
SM-485	James A. Bean House	1928	Residence	Not Evaluated
SM-798	Tobacco Barn	Circa 1920's	Agriculture	Not Evaluated
SM-897**	St. Mary's River State Park	1968	Entertainment/ Recreation	Not Evaluated

** - Resource is directly adjacent to the current Study Area.

Pedestrian Survey

The pedestrian survey of the Study Area was conducted on December 23, 2024, and began along the access road (Johnson Pond Lane) that extends east into the Study Area from Maryland Route 4 (St. Andrews Church Road). The Study Area consists of two broad uplands on the western and eastern side that slope into a low-lying central drainage that cuts roughly north-south through the Study Area containing Johnsons Pond and a portion of the St. Mary's River. The western side of the Study Area consists primarily of gently rolling uplands that are dissected by lower drainages and swales that all slope to the north and east toward the central drainage containing the St. Mary's River and the manmade Johnsons Pond basin. Vegetation in the upland areas is a mixture of intermediate growth deciduous and evergreen trees with sparse undergrowth. Johnson Pond Lane traverses the western part of the Study Area and was well-maintained and passable at the time of the survey (Figure 3-13). Several utility poles were noted carrying electrical transmission



Figure 3-13. Overview of Johnsons Pond Lane on the western side of the Study Area, view to the east.

along the southern side of the access road. The corridor ended at a transmission 'dip-pole' that continued subsurface electrical transmission into the Study Area.

An area containing modern refuse including bottles, metal framing, and an abandoned oil tank were noted just north of Johnson Pond Lane in the far southwestern part of the Study Area. Several overgrown roads were noted extending north and south of the access road. The northern road leads to ruins of a former structure situated approximately 45 meters (m) north of Johnson Pond Lane and 150 m west of Johnson Pond. What remains of the structure consists of a roughly 6-x-4-m cellar hole that is oriented on an east-west axis and features a field stone foundation intermixed with smaller amounts of Portland cement fragments and brick (Figure 3-14). A higher concentration of brick fragments was noted along the west side which could represent a chimney fall. Decorative evergreen trees were noted 10 m to the west. The cellar hole roughly corresponds to the location of structures depicted on the 1901 and 1939 USGS historic maps. No other artifacts were noted on the surface within or surrounding the cellar hole.

The former access road continues past the cellar hole location to the north until terminating at a ground transformer box carrying buried electrical transmission to the location of a demolished structure situated approximately 120 m to the north. The area surrounding the former structure is cleared on an upland ridge overlooking Johnsons Pond to the east. The area also contains an extant wooden shed with electrical switches/plugs and six small wooden piers rising approximately 50 cm above the ground surface (Figure 3-15). A pile of demolished structural materials (primarily plywood and 2-x-4 ft lumber) and modern refuse is located approximately 5 m east of the piers. Several additional derelict roads/access lanes are located in the western part



Figure 3-14. Cellar hole of former structure noted north of Johnsons Pond Lane showing displaced fieldstone, Portland cement, and bricks on surface, view to the west.



Figure 3-15. Wooden piers and nearby structure demolition debris associated with former structure location north of the identified cellar hole, view to the southeast.

of the Study Area, including one leading south from Johnsons Pond Lane that leads to an abandoned structure on a concrete/cinderblock base. Additionally, several distinct changes in vegetation, including *Hosta* plants, decorative trees/shrubs, and briar thickets, were noted in discrete locations throughout the central and northern part of the western side of the Study Area that might suggest additional former structures or activity areas.

The low-lying central drainage area includes Johnsons Pond and the exit flow of St. Mary's River draining southeast away from the Study Area. Johnsons Pond Lane slopes to the central drainage where the former dam had been recently reconfigured as a large stone rip-rap spillway bracketed by graded earthen abutments and a spillway (Figure 3-16). Water levels were very low at the time of the survey and the spillway was traversed on foot.

The St. Mary's River meanders in a narrow channel to the south and east of the new spillway. The entire low-lying area surrounding the stream channel appears denuded by frequent flash flooding episodes, as evidenced by numerous eroded dry stream channels and exposed root balls of large trees (Figure 3-17). Several small, exposed cobble beds were noted along the stream, which would have represented a potential source for local lithic material for precontact occupants. The southeast corner of the Study Area consists primarily of intermediate growth deciduous trees with denser undergrowth closer to the stream.

The eastern side of the Study Area consists of gently rolling uplands that transition to distinct ridgelines and steep slope toward the central drainage. The side slope becomes gradually less distinct and more level approaching the pond and stream creating smaller terraces. Flora in the



Figure 3-16. Overview of recently constructed spillway on southern edge of Johnsons Pond, view to the northwest.



Figure 3-17. Low-lying area near the St. Mary's River in the southeastern portion of the Study Area showing denuded surfaces in frequently flooded areas, view to the southeast.

area is largely deciduous with small pockets of replanted evergreens throughout. To the east of the dam, the main access road (Johnson Pond Lane) has not been maintained and is not traversable by vehicles. Several eroded deep ruts are present along the edges of the road, especially in the sloped areas approaching the central drainage. The road ends at private property boundaries along Barnes and Yea Lane on the far eastern side of the Study Area.

4. ARCHAEOLOGICAL SENSITIVITY ANALYSIS

Methods

Multiple environmental and cultural criteria were considered together to classify the Study Area and its surroundings into three tiers of precontact archaeological sensitivity ranging from low, moderate, to high. In general, areas of high sensitivity are designated on level or nearly level portions of elevated, well drained landforms, in close proximity to permanent water sources, such as elevated floodplains with well-drained soils, stream terraces, and upland ridges overlooking fresh water sources. Areas in proximity to historically established transportation routes and in the vicinity of structures shown on historic maps and aerial photography, are specifically classified as sensitive for historic archaeological resources. The general distribution of previously recorded archaeological sites was also considered during evaluation of archaeological sensitivity.

Low sensitivity is designated in areas with poorly drained and/or hydric soils and depressed landforms. Areas of moderate sensitivity meet some but not all of the criteria needed for either high or low sensitivity. This includes well drained areas displaced from water sources or somewhat poorly drained areas in close proximity to water. Designations of moderate sensitivity are generally applied to relatively flat uplands displaced from water, or somewhat poorly drained terraces featuring side slope.

To determine sensitivity classifications for the Study Area and its surroundings, environmental, historic, and cultural datasets were compiled into a GIS database and cross-referenced. Datasets utilized include contour mapping, soil mapping units classified in terms of drainage and typical landform, mapped streams and wetlands, USGS topographic maps from 1892 to present, aerial photography from 1952 to present, and the results of the pedestrian survey. All of these factors combined with an overall consideration of the landscape and its prominent landforms served to classify areas of High, Moderate, and Low sensitivity for archaeological resources throughout the Study Area.

Results

While no previously recorded archaeological resources have been identified within the Study Area, numerous archaeological sites have been identified in the vicinity, including a cluster of five precontact sites (18ST254, 18ST255, 18ST257, 18ST258, and 18ST264) that were identified southeast of the Study Area on upland ridges and ridge fingers overlooking the St. Mary's River drainage. Three of these sites are within one mile of the Study Area, while the remaining two are just outside of the one-mile radius. Precontact components at these sites range from the Early Archaic through the Early Woodland period, with the presence of lithic debitage and tools indicating that these represent short term resource procurement camps. The environmental setting of these sites on upland ridges with well-drained soils in proximity to freshwater resources is very similar to conditions found within the Study Area.

Topographically, the Study Area is situated in a drainage divide between the Patuxent and Potomac Rivers with elevations ranging from 20 to 37 m (67 to 122 ft) amsl. The upland ridges and ridge fingers overlooking the central drainage are ideally situated close to freshwater

resources and would have provided an attractive environment for precontact occupation and/or seasonal use. These areas are considered to have High sensitivity for archaeological resources. Upland areas displaced from freshwater resources, as well as gentle side slopes approaching the low-lying areas, are considered to have Moderate archaeological sensitivity. The low-lying areas immediately surrounding the St. Mary's River and its tributaries featuring poorly drained soils and evidence of frequent flooding are designated as Low archaeological sensitivity. Areas where slope exceeds 15% grade are also classified as Low sensitivity.

Previous research in a similar environmental setting on the Atlantic Coastal Plain conducted by Darrin Lowry during a broad survey of the interior of Queen Anne's County, Maryland proposed precontact settlement patterns based on specific ecological zones (Lowery 1994). Two of his proposed settlement models, the Interior Stream Focus Settlement Pattern and the Sand Ridge Settlement Focus Pattern, provide potential corollaries to the Study Area. The Interior Stream Focus Settlement Pattern proposed by Lowry indicated that "sites occur on ridges of the upper terrace adjacent to a freshwater stream drainage (Lowery 1994:17)", much like the ridges and ridge noses that overlook the St. Mary's River drainage in the Study Area. The Sand Ridge Settlement Focus Pattern found that "a pattern of site locations was noted on the excessively well-drained ridges within the poorly drained interior resource zone (Lowery 1994:17)", which is also very similar to the environmental setting of the Study Area. On the Eastern Shore, sites associated with these two identified ecological zones typically range from the Early Archaic through the Late Woodland and represent areas used for the purpose of gathering seasonal resources, including food and local lithic sources.

Historic maps and aerial photographs depict several structures in the Study Area by 1901. Based on historic maps, the Study Area was likely uninhabited prior to the twentieth century. The Study Area was primarily wooded prior to 1981 when large sections of the central and western Study Area were cleared and several structures and roadways built. Much of the eastern Study Area was cleared by 2005. The pedestrian survey noted three previous historic occupation areas, including a cellar hole and a formerly pierced structure in the western portion of the Study Area, as well as several cleared areas that could represent former historic activity areas, likely those seen on historic aerial photographs. The pedestrian survey also documented exposed stream cobbles in St. Mary's River, as well as within eroded areas along Johnson Pond Lane that would potentially have provided a source of local lithic material to precontact occupants.

Based on these factors, approximately 33.3% of the Study Area has been determined to have High sensitivity (83.43 acres) for archaeological resources. Areas of Moderate sensitivity constitute 28.7% (71.94 acres) while areas of Low sensitivity are 38% (95.29 acres) of the total Study Area (Figure 4-1). Areas of High sensitivity include the upland ridges and ridge fingers overlooking the central drainage, which would have provided an attractive environment for precontact occupation and/or seasonal use, as well as the areas of former historic structures documented in the Study Area. Areas of Moderate sensitivity include broad upland areas displaced from freshwater sources and lower terraces on side-slopes approaching drainages. Areas of Low sensitivity include low-lying, poorly drained areas associated with St. Mary's River that have been subject to frequent flooding and areas that are steeply sloped.

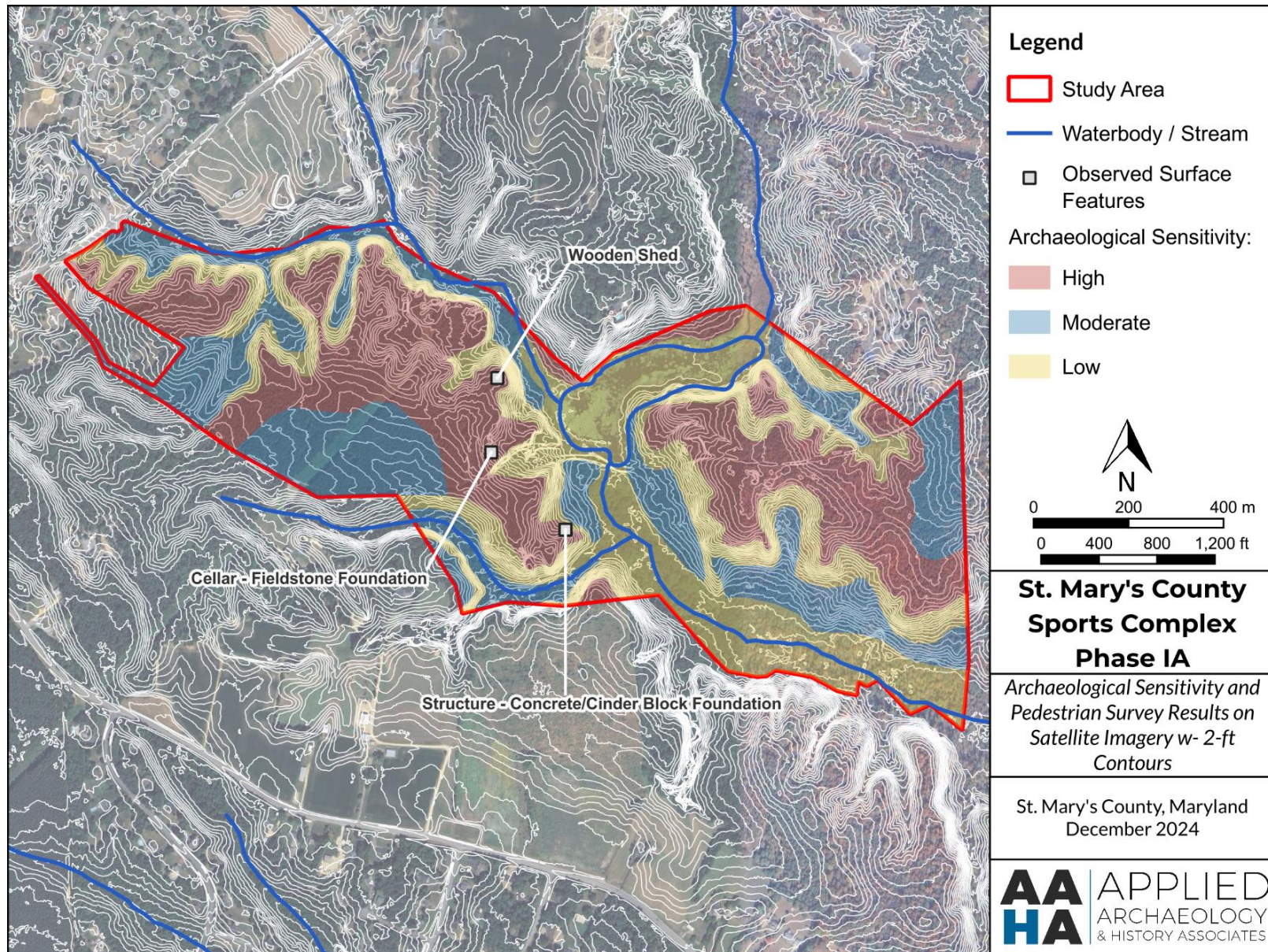


Figure 4-1. Archaeological sensitivity and identified surface features in the Study Area.

5. SUMMARY AND RECOMMENDATIONS

In December 2024, AAHA conducted a Phase IA archaeological assessment of the proposed Study Area in St. Mary's County, Maryland. In February 2024, the County and the MSA entered into a MOU for MSA to provide architectural/engineering (A/E) services related to the potential development of a new sports complex to be located in the Study Area. The work was conducted under sub-contract with MW Studios. All work was conducted by qualified professional archaeologists in accordance with guidelines established by the MHT and the Secretary of the Interior's Guidelines for Archeology and Historic Preservation. The study consisted of background research, a pedestrian survey, and the preparation of a technical report.

The 250.66-acre Study Area is located in central St. Mary's County, west of California, between Saint Andrews Church Road to the north and Indian Bridge Road to the south. The Study Area includes portions of the St. Mary's River and its tributaries and Johnsons Pond. The southwestern boundary of the Study Area is formed by a maintained access road (Johnsons Pond Lane) that traverses the Study Area and connects to Saint Andrews Church Road at the western extent of the Study Area and to Old Saint Andrews Church Road through Barnes and Yea Lane in the northeastern corner of the Study Area. A transmission line runs north to south through the western portion of the Study Area. The western and eastern uplands of the Study Area are primarily wooded with intermediate growth deciduous and evergreen trees.

Historic maps and aerial photographs show that the Study Area has been primarily wooded throughout the twentieth century, with cleared areas present in the late twentieth century, likely related to recreational activities at Johnsons Pond. No archaeological surveys have been conducted within the Study Area and no archaeological or architectural resources have been identified within the Study Area.

Summary

Archaeological sensitivity in the Study Area was evaluated based on a number of factors, including background research, environmental setting, and the results of the pedestrian survey. Based on these factors, approximately 33.3% of the Study Area has been determined to have High sensitivity (83.43 acres) for archaeological resources. Areas of Moderate sensitivity constitute 28.7% (71.94 acres) while areas of Low sensitivity are 38% (95.29 acres) of the total Study Area.

The upland ridges and ridge fingers overlooking the central drainage would have provided an attractive environment for precontact occupation and/or seasonal use and are considered to have High sensitivity for archaeological resources. Furthermore, precontact sites have been found in similar topographic settings to the immediate southeast of the Study Area overlooking the St Mary's River.

Historic maps and aerial photographs depict several structures in the Study Area by 1901. Based on historic maps, the Study Area was likely uninhabited prior to the twentieth century. The pedestrian survey observed a possible cellar hole in the general location of historic structures depicted on historic mapping of the Study Area, as well as several twentieth century historic

occupational features. These areas are also considered to have High sensitivity for archaeological resources.

Upland areas displaced from freshwater resources, as well as side slopes approaching the low-lying areas, are considered to have Moderate archaeological sensitivity. Low-lying areas with poorly drained soils, evidence of frequent flooding, and areas of excessive slope are considered to have Low archaeological sensitivity.

Recommendations

A Phase IB archaeological survey is recommended for areas of High and Moderate archaeological sensitivity in the Study Area (approximately 155.37 acres) due to favorable environmental conditions and known historic occupation. **Additional pedestrian survey supplemented by judgmentally placed STPs are recommended for areas of low archaeological sensitivity.**

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2016 *Defining the Rappahannock Indigenous Cultural Landscape*. St. Mary's College of Maryland, St. Mary's City, MD.

Strickland, Scott M., Julia A. King, and Martha McCartney

2019 *Defining the Greater York River Indigenous Cultural Landscape*. St. Mary's College of Maryland, St. Mary's City, MD.

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Yarnell, Richard A.

1976 Early Plant Husbandry in Eastern North America. In *Culture Change and Continuity*.
University of Tennessee Press, Knoxville, Tennessee.

APPENDIX A:
Qualifications of Investigators



EDUCATION

M.A., 2011, Archaeology,
Cornell University

B.A., 2009,
Sociology/Anthropology
and History,
Elizabethtown College

REGISTRATIONS

Register of Professional
Archaeologists
#39454409

SKILLS

Artifact Identification
Curation and Collections
Management
Technical Writing
Historic Research

YEARS OF

EXPERIENCE

Total: 13 With Firm: 3

CONTACT

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JASMINE GOLLUP, M.A., RPA

Laboratory Director

Jasmine Gollup is the Laboratory Director for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Gollup has 13 years of professional experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Gollup has conducted archaeological laboratory work for 12 years and has been a contributing or primary author on technical reports for eight years. Her experience includes cultural material recovered from Phase I through III excavations conducted for compliance surveys for state and federal agencies. Ms. Gollup's professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and historians and she is a Registered Professional Archaeologist. Ms. Gollup excels in the identification of cultural materials, the preparation of collections for curation at state, local, or private repositories, and historic archival research.

REPRESENTATIVE PROJECTS

Morton Farm – Prince George's County, MD:

Laboratory Director for Phase I archaeological investigation. Two multi-component archaeological sites were identified. Site 18PR1252 included a potentially stratified Archaic period component and was recommended for additional work. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

East Pat Lofts Property – Frederick County, MD:

Laboratory Director for Phase I and II archaeological investigations. Phase I survey identified site 18FR1155 which was further investigated during Phase II excavation. The site was recommended eligible for inclusion in the NRHP. Conducted background and historical research and laboratory analysis of all recovered artifacts. Prepared artifacts and paperwork for curation. Contributing author for technical report.

Melrod – Stafford County, VA:

Laboratory Director for Phase II archaeological investigations at two multicomponent sites – 44ST1277 and 44ST1278. Neither were recommended for further work. Conducted laboratory analysis, supervised technicians in the lab, prepared collections and documentation for curation, conducted comparative analysis of regional sites, and contributed to technical report.

FirstLight Northfield Mountain and Turners Falls Project – Franklin County, MA:

Laboratory Director for Phase II archaeological investigations at 17 sites along the Connecticut River. Conducted laboratory analysis, historic research, and contributed to technical report. Prepared artifacts and documentation for curation.

Pig Point, Anne Arundel County, Maryland: Phase III investigations of the deeply stratified Pig Point prehistoric site on the Patuxent River with Anne Arundel County Department of Planning and Zoning. Included field and laboratory work, as well as supervision of volunteers and interns in the lab.

Historic St. Mary's City/St. Mary's College of Maryland, St. Mary's County, Maryland:

Phase III level archaeological investigations for St. Mary's College of Maryland. Mitigation of several seventeenth century sites prior to construction. Tasks included field and laboratory work, as well as supervision of technicians in the lab.



EDUCATION

MA, 2020, Applied Archaeology, Indiana University of Pennsylvania

BA, 2014, Anthropology, West Chester University

REGISTRATIONS

Register of Professional Archaeologists
#58089080

SKILLS

Survey and Resource Evaluation
Technical Writing
GIS

YEARS OF

EXPERIENCE

Total: 8 With Firm: 3

CONTACT

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EMILY MASTERS, MA, RPA

Project Archaeologist

Ms. Emily Masters is an archaeologist for Applied Archaeology and History Associates, Inc. (AAHA). Ms. Masters has eight years of professional experience, with seven years' experience in cultural resource management and research projects in the Mid-Atlantic and Northeast regions. Ms. Masters has been contributing to technical reports and directing archaeological fieldwork for five years. She has been a contributing or co-author on over 50 technical reports, including Phase IA, IB, and II archaeological surveys. Ms. Master's expertise lies in field survey and resource evaluation, and has experience excavating and analyzing cultural material from historic and precontact period sites in Maryland, Pennsylvania, Delaware, West Virginia, Virginia, Ohio, New York, Massachusetts, Vermont, and New Hampshire. Ms. Masters is also experienced in using GPS and GIS in archaeological contexts. Ms. Masters' professional qualifications meet the U.S. Department of the Interior criteria for archaeologists and she is a member of the Register of Professional Archaeologists.

REPRESENTATIVE PROJECTS

Future Expansion of the Dobson Development Area – Prince George's County, MD:

Crew Chief for Phase I archaeological investigations of the proposed 730-acre development area. Assisted in the development of an archaeological sensitivity assessment to direct field efforts. Investigations resulted in the identification of one historic site, two historic scatters, two precontact sites, and the reidentification and expansion of an existing historic artifact scatter. One Late Woodland precontact site was recommended for avoidance or additional testing due to the recovery of diagnostic materials indicative of an underrepresented time period in the vicinity of the survey area.

FirstLight Northfield Mountain Pumped Storage and Turners Falls Hydroelectric Project, Franklin County, MA, Windham County, VT, Cheshire County NH:

Crew Chief for Phase IB survey of 12,000 linear meters of Connecticut river shoreline in Vermont, New Hampshire, and Massachusetts resulting in the identification of 29 archaeological sites. Assisted with the development of research design and conducted fieldwork for Phase II site examination of 19 sites. Four precontact sites and two historic sites were recommended eligible for listing in the NRHP under Criterion A and D.

East Point Solar Energy Center Project, Schoharie County, NY: Contributing author of Phase IA report responsible for preparing historic and precontact sensitivity analysis and Field Director for Phase IB investigations of the proposed 1,200-acre solar energy project. Phase IB identified 13 precontact and three historic archaeological sites. The proposed project designs were redrawn to avoid four of the sites recommended at potentially eligible for NRHP and one historic cemetery.

Raines Corner Phase II, Monroe County, WV: Crew Chief for Phase I and Phase II level archaeological investigations of a bridge replacement project in south-eastern West Virginia. Phase I survey identified one previously undocumented archaeological site yielding precontact artifacts from sub-plowzone contexts suggesting the vertical integrity of cultural deposits. Phase II evaluation of the site resulted in the recovery of 3,000 precontact artifact. The site was determined eligible for NRHP under Criterion D and avoided through construction re-design.



EDUCATION

B.A., 1999, History,
Washington College

Masters Certificate,
Cultural and Heritage
Resources Management,
2021, University of
Maryland

SKILLS

Mid-Atlantic Archaeology
Contact Period Research
Resource Evaluation
Project Management
Public Outreach

YEARS OF EXPERIENCE

Total: 25 With Firm: 6

CONTACT

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PATRICK WALTERS

Director of Cultrual Resources

Patrick Walters has designed and directed surveys and excavations of historic and prehistoric archaeological resources in the Northeast, Mid-Atlantic, and Southeast for over 25 years. He has a thorough knowledge of Section 106 and of the National Historic Preservation Act as amended (NHPA) and applying the National Register of Historic Places (NRHP) eligibility criteria to cultural resources. As a professional in the field of CRM, Mr. Walters has served as Project Manager on numerous cultural resources studies. He has also acted in a management role in coordination with multiple local, state, and federal agencies in the compliance environment, as well as implementation of National Environmental Policy Act (NEPA) policies, and in coordination of public outreach programs on behalf of municipalities for stewardship of NRHP properties. Mr. Walters has a broad knowledge of CRM principles and practices, archaeological survey, evaluation, and data recovery methodologies, and presentation of research results within federal and state agency, academic, and public sector frameworks. He has extensive experience on nationwide CRM projects including Phase I, II, and III terrestrial excavation, research, technical reports, and prehistoric and historic artifact analysis.

REPRESENTATIVE PROJECTS

Morton Farm – Prince George's County, MD: Project Manager for Phase I archaeological investigation which recorded two multi-component archaeological sites. Site 18PR1252 included a potentially stratified Archaic period component and was recommended for as potentially eligible for NRHP listing. Negotiated preservation of site 18PR1252 while allowing development outside site boundaries to continue. Primary author for technical report and lead consultation advisor.

Culpeper Technology Campus, Culpeper County, VA. Project Manager of Phase I survey of approximately 150 acres resulting in the recovery of 275 artifacts and the indentification of five archaeological sites. Due to lack of integrity none of the sites were recommended as NRHP-eligible. Acted as Project Manager for required follow-on historic architecture studies.

Conowingo Dam and Muddy Run Pumped Storage Relicensing Project – PA/MD: Project Archaeologist in support of environmental impact studies required for 40-year license renewal. Principal author of reports submitted to Exelon Generation Company, LLC and the Pennsylvania SHPO and MHT.

Phase III Data Recovery of Site 44LD1433 within the Goupda Property, Loudoun County, VA: Project Archaeologist responsible for excavation, recordation, and reporting on a data recovery of slave quarters dating from the late-18th through mid-19th centuries. Project recovered over 8,000 artifacts and provided a detailed analysis of enslaved peoples lifeways on a small plantation in Northern Virginia. The quarters were occupied by Union soldiers during the Civil War and several military artifacts were recovered.

Cultural Landscape Analysis and Archaeological Investigations at Cloverfields (18QU868), Queen Anne's County, MD: Project Manager and report coauthor for project investigating the Cloverfields house and gardens, a circa 1705 manor house. The excavations documented over 500 features with dates ranging from the early eighteenth century to the present. The project also included completion of an extensive Cultural Landscape Analysis and a publicly accessible digital archive.



EDUCATION

MA, 1985, Anthropology,
University of Tennessee

BA, 1978, Anthropology,
University of Georgia

MEMBERSHIPS

Register of Professional
Archaeologists
Society for Historical
Archaeology
Council for Maryland
Archaeology
Preservation Maryland

SKILLS

Project Management
Historic Archaeology
NRHP Nominations

YEARS OF EXPERIENCE

Total: 40 With Firm: 25

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JEANNE A. WARD, MA, RPA

President, Principal Investigator

Jeanne A. Ward, a cultural resources management consultant with over 40 years of professional experience, is President of Applied Archaeology and History Associates, Inc. (AAHA). Ward's academic credentials include a B.A. in anthropology from the University of Georgia and an M.A. in anthropology from the University of Tennessee, Knoxville. Her experience encompasses both historic and prehistoric archaeology and historic structure identification and evaluation. Projects have ranged from cultural resource sensitivity studies, through location/identification surveys, evaluations of significance, National Register of Historic Places nominations, and large-scale data recovery excavations. Ward's professional qualifications exceed all U. S. Department of the Interior criteria for archaeologists and historians (36 CFR 61). In addition, she is a Registered Professional Archaeologist (RPA), a national evaluation and certification of professional qualifications. She is the author, co-author, or contributor to over 350 cultural resources management reports and has presented numerous papers at professional conferences.

REPRESENTATIVE PROJECTS

Maryland State Highway Administration Open End Cultural Resource Services (Cultural Resources Specialist 2016 – present). Task 8: Phase I archaeological investigations of multiple previously un-surveyed area along the proposed alignment of additional lanes associated with the DC Beltway. The project included coordinating with M-NCPPC and NPS archaeologists as portions of the project lay on NPS property in the C&O Canal Park and within the Montgomery County parks property. More than 2,000 shovel tests were excavated, and nine sites were identified in Montgomery County.

Southern Maryland Electrical Cooperative (SMECO) (Project Manager 2015-present). Multiple archaeological investigations in advance of proposed substations. AAHA also conducted both Phase I and Phase II level archaeological investigations for the proposed burial of overhead powerlines within Historic St. Mary's City, a National Register-listed historic site. This involved compliance with the specific guidelines of Historic St. Mary's City as well as the Maryland Historical Trust and coordination between all parties.

The Village EUL Site at Perry Point Veterans Administration Medical Center, Cecil County, Maryland (Project Manager and Principal Investigator 2016). Assisted the Veterans Administration with NEPA compliance for the rehabilitation of Perry Point Village, a World War I-era workers village located on their campus. AAHA provided services consisting of the preparation of appropriate sections of the NEPA document, assistance to the VA and the client in consultation with the clients, the Maryland Historical Trust, and possible consulting parties including appropriate tribes, organization, and Federal, state, and local government entities. AAHA assisted with the MOA and the FONSI.

Archaeological Survey of Threatened Cultural Resources, Battle and Hunting Creeks, Calvert County, Maryland (Project Manager 2017). Two grant-funded contracts for archeological surveys of the shorelines of both Battle Creek and Hunting Creek in Calvert County, Maryland. The goal of both projects was the identification of potentially threatened cultural resources and the preparation of recommendations for the treatment of these resources. It resulted in the addition of 13 sites to the previously known five and the recommendation that the Town of Calverton, the first county seat, was in imminent danger.