An Assessment and Review of the Archaeological Resources of St. Mary's County, Maryland

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Executive Summary

The following report was written as part of a Certified Local Government (CLG) grant awarded by the Maryland Historical Trust (MHT) to the St. Mary's County Historic Preservation Commission (HPC) in 2014. The goals of this grant were to analyze, assess, and, as appropriate, update information on the known 909 archaeological sites in St. Mary's County and to record any additional archaeological sites encountered through the process.. St. Mary's College of Maryland was awarded the contract by the HPC to complete the scope of work designated in the CLG grant. Work was completed by archaeologists Scott Strickland and Julia King in fulfillment of the grant's requirements.

The condition of archaeological resources was of particular importance, especially given that many sites in the county were recorded decades ago, Specific questions and concerns were directed towards the impact that development has had on recorded sites. This project found that impacts due to sea-level rise and land subsidence (or sinking) are also of significant concern to long-term archaeological site preservation.

As part of the work conducted during this project, it became apparent that the greatest challenge for long-term archaeological site preservation in St. Mary's County stems from the combined threats of sea-level rise, erosion, and land subsidence. Sea-level rise is projected to cause the loss or near loss of approximately 10% of all known sites within the county by the year 2100. More than one-third of all sites will be impacted in some way by these threats. Nowhere is the threat of sea-level rise more apparent than in the southern end of the county in the community of Scotland and at Pt. Lookout State Park. Combined with sea-level rise is the threat of erosion. The highest rates of erosion in the county are found along the shore of the Chesapeake Bay. Erosion is not always a slow-going, gradual, and sustained process. Storm events such as hurricanes and Nor'Easters have damaging effects to life and property as well as to archaeological resources.

A site impact database was created as part of this project to collect and store all relevant statistics related to current site conditions and potential impacts. This database was also used to tie in current land ownership information to each recorded site. All spatial and tabular data was kept on a single-user computer maintained by the project archaeologists. Upon completion of the project, the database will be transferred to MHT and the Historic Preservation planner at the St. Mary's County Department of Land Use and growth management. Additionally, site chronological data was included to provide an inventory of the known archaeological resources and their spatial position. By querying the database, a total of 302 sites recorded prior to 1990 were recorded as having unknown chronological components. These sites provided a starting point for which to begin the reanalysis of any curated collections.

Of the 302 sites identified, 73 have associated collections stored at MHT's Maryland Archaeological Conservation Laboratory (MAC Lab) in St. Leonard, Maryland. Collections were re-examined and cataloged to assess any previously unidentified or unreported diagnostic artifacts. A total of 31 (10% of sites with unidentified chronological components) out of the 73 collections contained datable or diagnostic artifacts. As a result of the collections analysis, the site forms for the 31 sites were updated with the MHT site registrar. Copies of catalogs generated were also provided to the MAC Lab.

The spatial distribution of known sites and the boundaries of previous Phase I survey areas allowed for the identification of underrepresented locales within the county that may warrant future fieldwork. These areas were included (1) Chaptico, Bushwood, Avenue, and Colton's Point (all located along the Wicomico River); (2) the east side of St. Clement's Bay; (3) along the Chesapeake Bay shore south of the Patuxent River Naval Air Station and towards Dameron; and (4) along the Patuxent River in the vicinity of Hollywood and Mechanicsville.

The area of land between Chaptico Bay and Colton's Point west of St. Clement's Bay and on the eastern shore of the Wicomico proved an ideal place to begin survey fieldwork. This area was selected because of the highly productive soils found here and the preservation of large tracts of agricultural land. Much of this area is colloquially known as the *7th District*: an area where very little archaeological survey had previously been conducted.

Systematic surface surveys of large tracts of land in this area led to the discovery of nine previously unrecorded archaeological sites and the collection of new information about two previously-recorded. Sites discovered varied in type from Archaic-period lithic and shell scatters to 19th-century farmsteads. Most notable of all properties surveyed was the Lower Brambly property in the Chaptico/Bushwood area. Located on this property was a large Woodland and possible Contact-period native village (18ST51). Research and fieldwork conducted here suggests that this site may be the location of a village visited by Captain John Smith in 1608 known by the name of Cecomocomoco (also spelled Secowocomico).

Sites were identified on four different properties, referred to in the text as the Montfort, Lower Brambly, Wicomico Fields, and Little Hackley properties. The Montfort property included the expansion and updating of the Clifton site (18ST794), a multi-component site dating from the early 17th-century to the early 19th-century. Also identified was the Montfort 1 site (18ST885) – a prehistoric lithic and shell scatter and 19th-century artifact scatter; the Montfort 2 site (18ST886) – a prehistoric lithic and shell scatter and 19th/20th century barn site; the Montfort 3 site (18ST887) – a prehistoric quarry and lithic scatter and mid 18th to early 19th-century domestic site; and the Montfort 4 site (18ST888) – a prehistoric lithic and shell scatter.

In addition to the large Woodland-period village site found on the Lower Brambly property, the Lower Brambly 2 site (18ST884) - a prehistoric shell midden and lithic scatter and possible 18th-century artifact scatter was also found. On the Wicomico Fields property two sites, Wicomico Fields 1 (18ST882) and Wicomico Fields 2 (1883) were identified. Wicomico Fields 1 was identified as a Late Archaic and unknown Woodland resource procurement site and mid to late 18th-century plantation. The Wicomico Fields 2 site was identified as a prehistoric short term resource procurement site. The Little Hackley property consisted of the Little Hackley 1 site (18ST889) and the Little Hackley 2 site (18ST890). Little Hackley 1 was identified as a prehistoric shell midden, an 18th to 19th century plantation, and a 20th-century farmstead. The Little Hackley 2 site was identified as a 19th to early 20th-century farmstead or tenant house with an abandoned 19th-century roadway.

While this project served as a pilot program for conducting archaeological assessment in St. Mary's County, much work remains to be done. Additional sites which may be impacted by development, sea-level rise, and/or erosion, or which may be at risk for other reasons, should be visited to confirm the results of the remote sensing assessment done as part of this project. It is also recommended that site sensitivity models be developed in order to identify other that may also be at risk for future survey.

Acknowledgments

This following project would not be possible without the generous support of a number of individuals and organizations.

First and foremost among these are the Commissioners of St. Mary's County (current and former) and the members of the St. Mary's County Historic Preservation Commission (HPC). The project was supported and generously funded in 2014 in part by the county commissioners, including Jack Russell (then-President), Cindy Jones, Daniel Morris, Larry Jarboe, and Todd Morgan. Continued support for the project comes from current commissioners Randy Guy (President), Tom Jarboe, Mike Hewitt, John O'Connor, and Todd Morgan. The HPC during the course of this project was comprised of citizen volunteers with a variety of expertise in history, archaeology, genealogy, and historic preservation, and included Carol Moody (Chair), Peter Himmelheber, Scott Lawrence, Linda Reno, Dr. Patricia Samford, Michael Smolek, and Teresa Wilson. Grace Mary Brady, Historic Preservation Planner for the Department of Land Use and Growth Management, served as staff support for the HPC and handled all administrative responsibilities for the project, including often very tight scheduling demands.

HPC members Scott Lawrence, Patricia Samford, and Mike Smolek along with Julia A. King of St. Mary's College of Maryland were instrumental in preparing the Maryland Historical Trust (MHT) Certified Local Government (CLG) grant proposal funding this project. Together, they put many hours into preparing the scope of the project to meet both the requirements of the HPC and the vision of the Maryland Historical Trust.

Fieldwork was possible only with the generous support of landowners in the county, who allowed project staff to walk their fields and investigate their properties. These landowners include Dr. James and Gena Clifton, Mr. Max Montfort, Mr. Trueman Montfort, Ms. Virginia Montfort, and Ms. Nancy Wolfe, and we thank them for their interest in the county's history and archaeology.

HPC member Tricia Samford, also Director of the Maryland Archaeological Conservation Laboratory (MAC Lab), facilitated the review of existing archaeological site collections in MAC Lab custody. MAC Lab staff, including Ed Chaney, Rebecca Morehouse, Sara Rivers-Cofield , and Erin Wingfield, provided access to the collections and assisted with additional artifact identification.

Fieldwork associated with the project would not have been completed in a timely and efficient manner without the help of Bill Hunt, the deputy director of the Department of Land Use and Growth Management. Bill, who has a professional background in archaeology, spent many hours walking fiends and digging shovel tests to identify archaeology sites. Other field volunteers included Dr. Charlie Hall and Matt McKnight of the MHT, as well as Rob Gibbs, a member of the St. Mary's County Archeological Society.

MHT staff guided the project and provided valuable input and assistance. Nell Ziehl and Charlie Hall helped to refine the project scope of work and, along with Greg Brown, Jennifer Chadwick-Moore, and Jennifer Cosham, provided access to the state's archaeological files. Jennie Cosham was especially helpful with site recordation.

At St. Mary's College of Maryland (SMCM), Dr. Sabine L. Dillingham, Irene Olnick, and Chris True insured the budget and scope of work were appropriate for the project. Irene Olnick was especially helpful with the fiscal management of the project. Lucy Myers and Sandy Robbins assisted with hiring and personnel management, purchasing supplies, and other administrative tasks. All of the staff at SMCM

helped to maintain a direct line of communication between the administration at the College and that of the county.

Staff support from the Department of Land Use and Growth Management came from Phil Shire (Director), Pat Arnold, Janice Blackistone, Larry Eberhard, Marilyn Smith, Calvin Strozier, and Sue Veith. Pat and Larry made sure we could get into the building as well as provided leads to unidentified archaeological sites in the county. Janice and Marilyn made sure the gears were in place for the project to begin and funds distributed. Sue and Calvin provided support through access to county GIS data and the plotting of large scale maps and plots.

The project also owes a great debt to the citizens of St. Mary's County, who expressed great interest in the project, the history of the county, and the preservation of its archaeological resources. Several public outreach events were held to interact and engage the public. Special thanks goes to Dr. Bob Schaller, host of the Metrocast Channel 10 show *The Pulse*, for allowing Carol Moody and project staff to appear on the show to discuss the project. Thanks also go to Sherwana Knox of the Jefferson Patterson Park and Museum (JPPM) for facilitating participation in JPPM's *Discovering Archaeology Day* and to the Town of Leonardtown for providing a table at the town's Earth Day festivities. Jason Babcock of *The Enterprise* further helped to publicize the project and its discoveries when he prepared an article on Cecomococo.

Without the support of a great many people, none of this work would have been possible; however, any errors are mine.

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Table of Contents

Executive Summary i
Acknowledgments iii
Table of Contents v
List of Figures vii
List of Tables ix

Chapter 1. Introduction 1
Chapter 2. Scope of Work 3
Chapter 3. Public Outreach 5
Chapter 4. Historical Background 6
Southern Maryland Prehistory 6
Early Colonial History of St. Mary's County 10
The 19th/20th-Centuries in St. Mary's County 20
Chapter 5. Previous Regional Archaeological Studies 24
Chapter 6. Site Inventory 30
Chapter 7. Methodology 39
GIS Methodology 39
Site Form/Collection Review Methodology 42
Identifying areas of interest 44
Fieldwork Methodology 44
Chapter 8. Results of GIS & Collections Analysis 47
GIS Analysis Results 47
MAC Lab Collections Re-Examination 53
Chapter 9. Fieldwork Survey Locations 54
Chapter 10. Montfort Properties 56
Project Area 56
Tract History 56
Previous Investigations 59
Distributions 62
Results – Clifton (18ST794) 72

Results – Montfort 3 Site (18ST887) 73
Results – Montfort 1, 2, & 4 Sites (18ST885, 18ST886, & 18ST888) 74
Conclusions 74
Chapter 11. Lower Brambly 76
Project Area 76
Tract History 78
Previous Investigations 81
Artifact Distributions – Lower Brambly 1 (Longview Beach, 18ST51) 83
Results – Lower Brambly 1 (Longview Beach, 18ST51) 94
Conclusion – Lower Brambly 1 (Longview Beach, 18ST51) 99
Artifact Distributions – Lower Brambly 2 (18ST884) 102
Results – Lower Brambly 2 (18ST884) 104
Conclusions – Lower Brambly 2 (18ST884) 104
Chapter 12. Wicomico Fields 106
Project Area 106
Tract History 109
Distributions 110
Results 113
Conclusions 114
Chapter 13. Little Hackley 116
Project Area 116
Tract History 118
Distributions 121
Results 125
Conclusions 126
Chapter 14. Recommendations 128
Fieldwork 128
Site Sensitivity Modeling 129
Conclusions 131

References Cited 133

Appendix I. Diagnostics From MAC Lab Re-analysis 144
Appendix II. Display Materials For Public Outreach 147
Appendix III. Summary of Phase II/III Excavations 149
Appendix IV. Field Survey Catalogs 156
Appendix V. Sample Survey Log 191
Appendix VI. Qualifications 192

List of Figures

Figure 1. Captain John Smith map of Virginia, published 1612. 11
Figure 2. Map of sites investigated by Reynolds (1884/1889) and McMillan (Source: McMillan 1972). . 25
Figure 3. Map of Phase I survey areas (red). 26
Figure 4. Early Archaic-period site locations. 31
Figure 5. Middle Archaic-period site locations. 32
Figure 6. Late Archaic-period site locations. 32
Figure 7. Early Woodland-period site locations. 33
Figure 8. Middle Woodland-period site locations. 34
Figure 9. Late Woodland-period site locations. 34
Figure 10. Agriculturally productive soils of potential over 100 bushels/acre of corn, non-irrigated. 35
Figure 11. 17th-century site locations. 37
Figure 12. 18th-century site locations. 37
Figure 13. Site impact relational database schema. 43
Figure 14. Shovel test pits in yard area - Little Hackley. 45
Figure 15. Sea-level rise predictions. 49
Figure 16. Land subsidence rates. 50
Figure 17. Sea-level rise predictions, lower St. Mary's County. 51
Figure 18. Recent erosion rates, northern St. Mary's County. 52
Figure 19. Recent erosion rates, southern St. Mary's County. 52
Figure 20. Location of project survey areas. 54
Figure 21. Maryland Archaeological Research Units. 55
Figure 22. Montfort field areas. 57
Figure 23. Soil types in the Montfort project area. 58
Figure 24. Distribution of colonial ceramics, 2012 shovel test survey, 18ST794. 60
Figure 25. Distribution of refined earthenware, 2012 shovel test survey, 18ST794. 61
Figure 26. Montfort sites map. 63
Figure 27. Distribution of brick - Montfort. 64
Figure 28. Distribution of ceramics - Montfort. 65
Figure 29. Distribution of coarse and refined earthenware - Montfort. 66
Figure 30. Distribution of porcelain - Montfort. 67
Figure 31. Distribution of tobacco pipes - Montfort. 68
Figure 32. Distribution of glass - Montfort. 69

Figure 33. Distribution of lithics - Montfort. 70
Figure 34. Distribution of oyster shell - Montfort. 71
Figure 35. Lower Brambly field areas. 76
Figure 36. Soil types in the Lower Brambly project area. 77
Figure 37. 1795 Dennis Griffith map showing Llewellin 79
Figure 38. 1797 C.E. Bohn map showing Llewellin. 80
Figure 39. Lower Brambly Site Locations. 82
Figure 40. Lower Brambly gravestone with deaths-head motif. 83
Figure 41. Lower Brambly gravestone inscription, 18ST51 83
Figure 42. Location of brick and shell middens - Lower Brambly 1, 18ST51. 84
Figure 43. Distribution of brick - Lower Brambly 1, 18ST51. 84
Figure 44. Distribution of window glass - Lower Brambly 1, 18ST51. 85
Figure 45. Distribution of colonial bottle glass - Lower Brambly 1, 18ST51. 85
Figure 46. Distribution of colonial ceramics - Lower Brambly 1, 18ST51. 86
Figure 47. Distribution of post-colonial ceramics - Lower Brambly 1, 18ST51. 86
Figure 48. Distribution of oyster shell - Lower Brambly 1, 18ST51. 87
Figure 49. Distribution of bifaces, cores, and tools - Lower Brambly 1, 18ST51. 87
Figure 50. Distribution of fire cracked rock - Lower Brambly 1, 18ST51. 88
Figure 51. Distribution of flakes - Lower Brambly 1, 18ST51. 88
Figure 52. Distribution of projectile points - Lower Brambly 1, 18ST51. 89
Figure 53. Distribution of native ceramics - Lower Brambly 1, 18ST51. 89
Figure 54. Chronological distribution areas - Lower Brambly 1, 18ST51. 90
Figure 55. 1877 US Coast Survey map - Brambly 91
Figure 56. 1952 aerial photo - Brambly 92
Figure 57. 1960 aerial photo – Brambly 92
Figure 58. Silver thimble from Lower Brambly 1, 18ST51. 98
Figure 59. Chart of metal composition within tested samples of copper alloy. 99
Figure 60. Smith's Map of Virginia, detail, showing the Potomac drainage. 101
Figure 61. Distribution of oyster shell - Lower Brambly 2, 18ST884. 103
Figure 62. Distribution of lithics - Lower Brambly 2, 18ST884. 103
Figure 63. Distribution of glass - Lower Brambly 2, 18ST884. 104
Figure 64. Wicomico Fields area map. 106
Figure 65. Wicomico Fields site locations. 107
Figure 66. Soil types in the Wicomico Fields project area. 108
Figure 67. Location of cobble and gravel deposits - Wicomico Fields. 108
Figure 68. Distribution of oyster shell - Wicomico Fields. 111
Figure 69. Distribution of lithics - Wicomico Fields. 111
Figure 70. Distribution of brick - Wicomico Fields. 112
Figure 71. Distribution of colonial bottle glass - Wicomico Fields. 112
Figure 72. Distribution of colonial ceramics - Wicomico Fields. 113
Figure 73. Little Hackley area map. 116
Figure 74. Little Hackley site locations. 117
Figure 75. 20th century brick ruin - Little Hackley. 118
Figure 76. Soil types in the Little Hackley project area. 119

Figure 77. 1967 aerial photo - Little Hackley 120
Figure 78. 19th-century drawing of Little Hackley 121
Figure 79. West St. Mary's Manor. 121
Figure 81. Distribution of oyster shell - Little Hackley. 122
Figure 80. 1902 US Coast Survey map, Little Hackley. 122
Figure 82. Distribution of historic ceramics and glass - Little Hackley. 123
Figure 83. Distribution of lithics - Little Hackley 123
Figure 84. Distribution of brick - Little Hackley. 124
Figure 85. Distribution of ceramics over 1902 US Coast Survey map - Little Hackley. 124
Figure 86. Distribution of glass over 1902 US Coast Survey map - Little Hackley. 125

List of Tables

Table 1. Southern Maryland prehistory. 7
Table 2. Early St. Mary's County manors. 14
Table 3. Survey coverage by zip code. 27
Table 4. Inventory of identifiable chronological site components. 30
Table 5. Prehistoric site typologies. 36
Table 6. Historic site typologies. 38
Table 7. Landscape feature disturbance score guide. 40
Table 8. Example disturbance score adjustment. 41
Table 9. Final disturbance score classification. 41
Table 10. Reclassification scheme for NOAA/C-CAP land cover classifications. 42
Table 11. Summary disturbance scores for recorded sites. 47
Table 12. Summary coverage of reclassified NOAA/C-CAP land use for recorded sites. 48
Table 13. Summary of impervious surface coverage for recorded sites. 48
Table 14. Summary of impacts due to 2-foot sea-level rise for recorded sites. 50
Table 15. Summary of protected land coverage for recorded sites. 53
Table 16. Montfort property chain of title. 59
Table 17. Artifacts recorded from surface survey – Clifton, 18ST794. 72
Table 18. Artifacts recorded from surface survey – Montfort 3, 18ST887. 73
Table 19. Artifacts recorded from surface survey - Montfort 1, 2, & 4 - 18ST885, 18ST886, and 18ST888. 74
Table 20. Lower Brambly chain of title. 78
Table 21. Lithic artifacts recorded from surface survey – Lower Brambly 1, 18ST51. 94
Table 22. Native ceramics recorded from surface survey – Lower Brambly 1, 18ST51. 95
Table 23. Late Woodland ceramic tempers at Lower Brambly 1 and Choptico Indian Town. 96
Table 24. Historic ceramics recorded from surface survey – Lower Brambly 1, 18ST51 97
Table 25. Non-architectural glass recorded from surface survey – Lower Brambly 1, 18ST51 97
Table 26. Architectural and other artifacts recorded from surface survey – Lower Brambly 1, 18ST51… 98
Table 27. Metal composition within tested samples of copper alloy 99
Table 28. Artifacts recorded from surface survey – Lower Brambly 2, 18ST884. 104
Table 29. Wicomico Fields chain of title. 109

Table 30. Artifacts recorded from surface survey – Wicomico Fields 1, 18ST882. 114
Table 31. Artifacts recorded from surface survey – Wicomico Fields 2, 18ST883. 114
Table 32. Little Hackley chain of title. 120
Table 33. Artifacts recorded from surface survey – Little Hackley 1, 18ST889. 126
Table 34. Artifacts recovered from shovel test pits – Little Hackley 1, 18ST889, yard area. 127
Table 35. Artifacts recovered from surface survey – Little Hackley 2, 18ST890. 127

Chapter 1.
Introduction

There are a total of 909 archaeological sites recorded with the Maryland Historical Trust (MHT) in St. Mary's County. These sites range in date from the Paleo-Indian period (c. 10,000 BC) through the 20th century and represent the full spectrum of people who have made St. Mary's County their home for thousands of years. Prehistoric sites include villages, hamlets, base camps, short-term resource/ procurement, lithic quarry/extraction, shell midden, and lithic scatter sites. Historic sites include plantation sites, tenant farms, quarters for servants and enslaved people as well as commercial, industrial, military, educational, and religious sites. St. Mary's City, the first settlement and capital of the Maryland colony from 1634 until 1695, is one of the nation's most important archaeological sites and has been designated a National Historic Landmark by the Department of the Interior. Some of the earliest colonial sites in Maryland are found in St. Mary's County, both in the colonial capital and along the county's waterways. Taken together, all of these sites represent an important and non-renewable record of the county's human history.

The St. Mary's County Historic Preservation Commission (HPC) wanted to better understand the types of inventoried sites and the nature of any threats to these sites. The HPC's mission is "to safeguard the heritage of the county by advocating for the preservation of sites, structures, or districts which reflect the elements of its cultural, social, economic, political, archaeological, and architectural history" (HPC 2015).

As part of their mission, the HPC has been advocating for the development of an archaeology regulation to be written into the St. Mary's County Comprehensive Zoning Ordinance. This is seen as an important step in the further preservation of archaeological sites in what is considered Maryland's *Mother County*. As a first step toward achieving this goal, the HPC, as a designated Certified Local Government (CLG) entity, applied for CLG grant funds from the Maryland Historical Trust (MHT). CLG funds are allocated from the federal Historic Preservation Fund and awarded and administered by MHT and the National Park Service. The HPC's goal was to develop a pilot program for archaeological assessment.

The CLG grant application, written by members of the HPC with the help of Julia A. King of St. Mary's College of Maryland (SMCM), was presented to the Commissioners of St. Mary's County in the Spring of 2014 where it was approved and and then submitted to MHT for review. As part of the grant application, the commissioners provided a cash match of $3,747. The grant was subsequently approved by MHT and was awarded to the county that summer. The county contracted with SMCM to perform the duties in the grant's scope of work. SMCM hired the author, Scott Strickland, an archaeologist who meets the US Department of Interior's standards.

Work on the project began on January 20, 2015 with an application for spatial data from MHT for St. Mary's County, including all recorded archaeological site locations and Phase I survey areas. Additional spatial data was acquired from the St. Mary's County Department of Land Use and Growth Management, the Maryland Department of Natural Resources, the US Department of Agriculture, and the US Geological Survey. These data were compiled to explore impacts to archaeological resources due to man-made and natural processes, and to recommend what could be done to mitigate or prevent these impacts. Specific impacts will be examined in more detail in further sections of this report.

An important component of this project was to undertake fieldwork in areas where sites may be at risk, especially those areas where little to no archaeological survey has previously been done. This involved the cultivation of relationships with landowners in the county through public engagement and

educational events. As part of the development of the archaeological assessment pilot program, fieldwork commenced in the area of the county known as the *Seventh District.* This area is one that is both at risk and under-represented in archaeological survey. The documentary record indicates that this particular area of the county was a landscape of considerable importance during late prehistory and colonial periods as well as during the Revolutionary War.

St. Mary's County has the benefit of retaining a predominantly rural landscape, but that does not mean that it is immune to negative and destructive impacts to its cultural heritage. It is the intention of the HPC, the Department of Land Use and Growth Management, and the Commissioners of St. Mary's County to assess these impacts and develop strategies to mitigate them in the ongoing effort to preserve the county's non-renewable and evanescent historic resources for future generations.

Chapter 2.
Scope of Work

The principal goal of the project was to undertake an assessment of known archaeological resources in St. Mary's County. The scope of work for the project included five tasks (abridged for the purposes of this chapter):

A. St. Mary's County will contract with a qualified archaeologist to develop a pilot program focused on identification, documentation, and assessment of archaeological resources in St. Mary's County.

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B. Using the Maryland Historical Trust's (MHT) existing survey data and available resources on the history, prehistory, and archaeological resources of St. Mary's County, the project archaeologist will develop a baseline of currently known archaeological resources in the county. If the study results in the discovery of archaeological sites that are not included in the Maryland Inventory of Historic Properties or generates substantive new information regarding the nature or condition of currently inventoried archaeological sites, the project archaeologist will work with MHT staff to ensure that the state inventory records are updated and complete.

C. The project archaeologist, in coordination with Julia A. King of St. Mary's College of Maryland and the St. Mary's County Historic Preservation Commission, will assess and produce a report detailing the current state of knowledge of archaeological properties, along with recommendations for future steps to survey and develop sensitivity models for identifying significant archaeological sites. St. Mary's County will submit a copy of the draft report to MHT for 45 day review and comment and will ensure that MHT comments are addressed in the preparation of the final document. St. Mary's County will provide MHT with three copies of the final report.

D. Two public events will be organized to raise public awareness about the importance of archeology in St. Mary's County. St. Mary's County will provide MHT with written notice of the events in advance and will include copies of any outreach materials produced for those events in an appendix to the project report.

E. All work will be consistent with the *Standards and Guidelines for Archeological Investigations in Maryland* (http://mht.maryland.gov/documents/PDF/Archeology_standards_investivations.pdf).

To satisfy the requirements for *Task A*, a fieldwork model was developed for conducting surface surveys in a way to maximize land area coverage and use of time allotted for the grant project, while being aware of the difficulties and problems associated with pedestrian survey. A more complete discussion of the fieldwork model can be found in Chapter 7.

In order to assess previously recorded archaeological sites per *Task A*, archaeological site data was accessed through MHT. This included spatial data and access to the Maryland Department of Planning Digital Library database. All spatial data was compiled into a single geodatabase within ESRI ArcGIS software. These site data were organized in order to determine which sites had "unknown" prehistoric and/or historic contexts. Collections for these unknown sites which are curated at the Maryland Archaeological Conservation Laboratory (MAC Lab) were re-examined and re-cataloged for

diagnostic artifact identification. All changes in site identification were corrected on update forms submitted to MHT's Archeological Registrar. Summarized diagnostic materials cataloged for each collection where updates and changes were made can be found in Appendix I.

MHT data access provided the means for identifying baselines of known site types and chronological periods of occupation as per *Task B* of the scope of work. All sites were also assessed based on land use change between 1973 and 2010 to identify any sites impacted by development. Development impacts were also measured through more high resolution impervious surface data. Other impacts were assessed using projected climate model statistics as well as through visual examination of high resolution aerial orthography.

Task D of the project scope of work was addressed through four public outreach events and project advertisements/press, which will be discussed in the following chapter. *Task C* and *Task E* of the scope of work were fulfilled by the completion of this report.

Chapter 3.
Public Outreach

Four public outreach and media events were conducted as part of this project. These events took the form of one television interview, two public outdoor information booth events, and one newspaper article about the project. All four outreach projects served to raise awareness of archaeological resources in St. Mary's County.

The first public outreach event took place on March 26, 2015 at the Metrocast Channel 10 studios in Hollywood, Maryland. Scott Strickland (project archaeologist) and Carol Moody (chair of the Historic Preservation Commission) appeared on the *The Pulse*, a show dedicated to topics related to politics, industry, military, and education and hosted by Dr. Bob Schaller. The episode aired throughout the week of April 6, 2015 and was also made available through social media. The interview focused on potential threats to archaeological sites and what steps the public could take to ensure that sites were properly documented. In addition to details of the project, two other events were advertised; *Discovering Archaeology Day* at the Jefferson Patterson Park and Museum in St. Leonard and *Earth Day* on the town square in Leonardtown.

Discovering Archaeology Day took place April 18, 2015 at the Jefferson Patterson Park and Museum as part of Maryland Archeology Month. A visual display and brochures (II) were presented at the event, focusing on the themes of St. Mary's County archaeological resources and impacts due to climate change and erosion. Visitors to the event were engaged one on one about other aspects of the project. Topics of discussion included the recordation of unknown sites, the importance of reporting artifacts seen on the ground, and agencies to contact in the event someone discovers an archaeological site.

Much like Discovering Archaeology Day, a booth discussing the role of climate change in terms of archaeology was the focus of a presentation at Earth Day on April 19, 2015 in Leonardtown, the county seat of St. Mary's County. The event was attended by approximately 1,000 people. Most visitors were residents of St. Mary's County and discussed potential archaeological sites on their property.

The final public outreach medium employed as part of this project was in the form of a newspaper article. On May 20, 2015, the local St. Mary's County newspaper, *The Enterprise*, printed an article relating to the CLG project and an important archaeological site located on the property known as Lower Brambly. Lower Brambly will be discussed in further detail within this report.

Chapter 4.
Historical Background

St. Mary's County has a long and rich history beginning some ten to 12,000 years ago when humans first arrived in the state's coastal plain. The Chesapeake Bay and Potomac River were much smaller water bodies, and temperatures much cooler than today. Holocene era warming gave rise to resources attractive for human occupation, and population grew, reflected in the numbers of prehistoric site types previously documented in St. Mary's County. Beginning in the early 17th century, Europeans began exploring the Potomac River drainage and, in 1634, a party of English colonists under the direction of the Calvert family established their primary settlement at St. Mary's on the St. Mary's River.

This chapter provides a broad overview of the history of St. Mary's County beginning some 12,000 years ago and provides the historical context for identifying and classifying archaeological sites in the county.

Southern Maryland Prehistory

The following section has been abstracted from *Pathways to History: Charles County, Maryland, 1658-2008* by King, Arnold-Lourie, and Shaffer (2008).

The first inhabitants of southern Maryland arrived perhaps as early as 12,000 years ago, when regional temperatures were cooler by as much as five degrees Fahrenheit and the climate was more humid than it is today, sea-levels were up to 340 feet lower, and the Potomac River was a freshwater tributary of the Susquehanna River. The landscape consisted primarily of open grassland and of spruce, beech, birch, hemlock, and oak forests. The earliest people were highly mobile. They probably moved in small bands for at least part of the year, hunting large and small game, fishing, and gathering wild plant foods according to the season (Dent 1995:75-82, 135-145; Kraft 1977:35-69).

Archaeologists call this time the Paleo-Indian period, which began in North America about 12,000 years ago and lasted roughly 2,500 years (Table 1). Very few Paleo-Indian sites are known in Maryland, both because the population was small and because many early archaeological sites have been inundated by the rising waters of the Chesapeake Bay and its tributaries. Archaeologists have identified – but not yet investigated – a number of Paleo-Indian sites in southern Maryland. These sites have been identified by the recovery of distinctive stone tools or "fluted" projectile points, so-called because of the characteristic notching of stone flakes from the point's base. These easily recognized points, which include spear tips, are found in association with Paleo-Indian sites across North America, and their relative uniformity over thousands of miles has intrigued archaeologists for decades. In southern Maryland, most sites dating to this period are found in the Zekiah Swamp drainage or in the Potomac River valley west of the Route 301 corridor (Barse 1985:22-26; Wanser 1982:6), although fluted points have been discovered along the shoreline in St. Mary's County, including along the Chesapeake Bay near Point Lookout.

Beginning about 10,000 years ago, temperatures worldwide began to warm, melting the glaciers that, on the eastern part of the continent, had reached as far south as Pennsylvania. Over the next several thousand years, glacial melt began flooding the Susquehanna River valley, creating what is now the Chesapeake Bay. As the waters rose, the Potomac and Patuxent rivers began to take their current shapes, becoming recognizable about 4,000 to 5,000 years ago. The rising sea-level created rich new swamp and marsh environments throughout the region, and warming temperatures encouraged the growth of a predominantly oak and hickory forest. Unlike the forests and grasslands of the cooler Paleo-Indian period,

the changing terrain offered little open space. The cause of the warming is often debated, but one thing is certain. The familiar resources of the Paleo-Indian period disappeared, and, beginning some 9,000 years ago, human communities were forced to adapt to a new environment (Colman, Halka, and Hobbs 1991; Dent 1995:82-95; Kraft 1977).

Archaeologists describe the post-Paleo-Indian period as the Archaic period, organizing it into three divisions, including the Early, Middle, and Late Archaic (see Table 1). The Early Archaic (7500 BC to 6000 BC) reflects the beginning of the Holocene geological epoch, with a cool and dry climate becoming warmer and wetter. Hardwood forests were replacing spruce forests, and swamps were forming in areas where none had been present previously (Wanser 1982:70). These climactic and environmental changes underpinned new settlement and subsistence strategies. Evidence from sites elsewhere in the Middle Atlantic indicate "more well-defined scheduling and seasonal rounds" focused on hunting and gathering, especially deer and nuts, and much less on fish or shellfish. By the end of the Late Archaic, many archaeologists argue, "focal hunting adaptation was replaced by a broad spectrum foraging strategy" (Wanser 1982:72-73).

Period	Dates
Paleo-Indian	10000 BC – 7500 BC
Early Archaic	7500 BC – 6000 BC
Middle Archaic	6000 BC – 3500 BC
Late Archaic	3500 BC – 1000 BC
Early Woodland	1000 BC – 200 AD
Middle Woodland	200 AD – 900 AD
Late Woodland	900 AD – 1600 AD
Contact	1600 AD – present

Table 1. Southern Maryland prehistory.

The new conditions may have proved advantageous to those dwelling on the inner coastal plain. Over 150 archaeological sites from the Archaic period survive in St. Mary's County, possibly suggesting an increased population. Evidence from southern Maryland and other Maryland sites reveals that, during the Archaic, which lasted from 7500 BC until 1000 BC, people followed a seasonal round of hunting, fishing, and gathering not unlike their Paleo-Indian forebears. However, they developed increasingly diverse and specialized tools for harvesting a much wider range of plant and animal foods, returning on a regular basis to places where these resources were found. In addition to chipping pieces of stone to make tools such as projectile points, Archaic-period people ground stone into axes and adzes for woodworking. They also made mortars, pestles, and manos (handheld stones or rollers) and metates (stone blocks with shallow concave surfaces) for grinding wild plant foods (Dent 1995:194-215; Wilke and Thompson 1977:22).

The rising sea-level increased the importance of marine resources and helped to diversify and enrich food sources. Archaeologists have uncovered evidence that fish weirs, or large nets staked in the water, were made and used during the Archaic period. Largely constructed of organic materials, these devices are seldom discovered in a preserved state, though their presence would not be surprising. Any such large-scale fishing expeditions, however, would have required substantial cooperation, not just for catching but also for processing the harvested fish (Custer 1989:204; Dent 1995:204).

The Middle Archaic, which archaeologists argue lasted from 6000 to 3500 BC, "appears to be a continuation and elaboration of trends" evident toward the end of the Early Archaic. The subsistence base appears to have become larger, an adaptive strategy that not only would have fostered population growth but would have made existing populations less vulnerable to disruptions in the availability of a particular food source. Swamps – like the Zekiah Swamp in nearby Charles County, with its rich resources – became a focus of settlement, with sites occupied longer and by greater numbers of people.

Evidence of developing trade networks appears on Archaic-period sites in the form of rhyolite, a granite-like rock not native to southern Maryland found in the mountains west of the Chesapeake piedmont. Rhyolite is found on Archaic-period archaeological sites throughout southern Maryland.

Fashioned into projectile points, knives, and other tools, rhyolite probably came to the Tidewater through broad-based exchange networks characterized by hand-to-hand exchange among related parties. Alternatively (or additionally), Archaic-period people from Maryland's coastal plain may have traveled to the mountain region, collecting rhyolite and bringing it back to southern Maryland. How rhyolite ended up in southern Maryland remains a mystery, but it is clear that exchange networks fostered social interaction over considerable distances (Stewart 1989:47-78; Wanser 1982:82).

People almost certainly remained mobile throughout the Archaic period, which lasted about 6,000 years in this part of North America, but their territorial range may have decreased as they became more efficient hunters and gatherers. By the end of the period, about 3,000 years ago, many groups were making and using bowls of ground steatite, a soft, greasy-feeling stone commonly known as soapstone. Archaeological evidence suggests the bowls were used for cooking. As the population grew along with the more efficient harvesting of available plant and animal resources, including fish, additional pressure was placed on communities to harvest yet more food from the environment.

Wanser (1982:94) notes that, by the Late Archaic, the "climate was warm and dry," an oak-hickory forest predominated, and the "Lower Potomac estuary was well developed…, with shellfish and anadromous fish plentiful." Hunting remained important to Late Archaic people, but the primary subsistence strategy was one of intensive foraging, evidenced by a fluorescence of tool types. Archaeologist William Gardner (1978:31) argues that, by the Late Archaic, most groups were leaving the swamps for oysters on the coast, but Wanser's (1982:129) analysis of collections suggests that, at least in the case of the nearby Zekiah Swamp drainage, population there may have actually increased. Wanser acknowledged that Late Archaic-period coastal sites in places like St. Mary's County may be absent because they are inundated; nonetheless, the Zekiah Swamp, which forms the headwaters of the Wicomico River, was visited and occupied by Native peoples through the end of the Late Archaic and is one of the most intensively occupied areas during this period in southern Maryland.

During the Late Archaic (3500 BC to 1000 BC), "populations became larger, territories smaller, and more permanent habitation at certain sites was likely" throughout Eastern North America. Regional traditions, evident before the Late Archaic, became especially distinct. These 'traditions,' several of which are evident in the archaeological assemblages of southern Maryland, do not necessarily represent separate cultural groups but the "adoption of tool types from a variety of sources" (Wanser 1982:93).

At about this time – the end of the Archaic and the beginning of the Woodland period (1000 BC to AD 1600) (see Table 1) – ceramic vessels entered the archaeological record. Many were similar in size and shape to the Archaic steatite bowls, but they were made from locally-mined clay fired at relatively low temperatures. Archaeologists typically associate ceramics with more sedentary societies. These communities still hunted and gathered food from the wild, but they also grew their own crops, eventually including corn. More importantly, they produced food surpluses. Indeed, it was around this time, some 3,000 years ago, that small, below-ground pits – not unlike root cellars – were developed for storing surplus food (Dent 1995:229-230).

By the end of the Archaic, New World inhabitants, including those in what is now southern Maryland, were practicing a diversified hunting and gathering economy, one made possible by the rich resources of the Chesapeake Bay and its tributaries. Resources were so plentiful that the trapping of salt and freshwater fish, the hunting of small mammals, and the gathering of edible plants took place in an ever-dwindling geographical area; people could find or produce much of what they needed fairly close at hand. People remained mobile, but the range of their day-to-day roaming shrank, eventually giving rise to large, semi-permanent settlements, some of which were even fortified against other indigenous groups.

Trade and exchange were very important, and probably represented the route by which corn found its way into the diet of the Coastal Plain people, including those in southern Maryland. Rhyolite, the stone used for making tools, appeared in even greater quantities during the Woodland period along with other artifacts that would indicate trade. Among them are the extraordinary objects – dating from about 2,500 years ago – that are associated with the Adena "Mound Builder" tradition of the American midlands. Large blades of non-local stone, tubular stone pipes, stone gorgets (neck pendants worn for decoration and defense), copper beads, red ochre (used as a pigment for body decoration), and other unusual objects probably used for ritual or ceremonial purposes have been recovered from contemporary sites on Maryland's western shore (Dent 1995:231-235; Potter 1993:107-108; Stewart 1989:47-78). At least one of these sites may be located in St. Mary's County on St. Clement's Bay, where homeowners have reported finding Adena-type artifacts.

The increasingly important cultivation of crops such as maize, beans, and squash didn't occur overnight, nor did some enterprising member of the area's Woodland peoples "discover" or "invent" agriculture. Instead, the archaeological evidence indicates that corn came late to the region, possibly around AD 800-900. The corn raised by Native American groups in what is now southern Maryland is thought to have come from trade with Piedmont groups, with local tribes adopting its cultivation as yet another subsistence strategy (Dent 1995:251-254; Turner 1992:107).

Sometime around AD 1350, in a series of events with important implications for the Chesapeake Tidewater, native people living in what is now Montgomery and Frederick counties began abandoning their villages and moving south out of the Potomac Piedmont and onto the Coastal Plain. The reasons for their migration are unclear, but archaeologists suspect that Piedmont groups were pushed out by immigrants from the west. The Piedmont people, in turn, appear to have displaced established communities in the Tidewater. The archaeological evidence for these migrations and the subsequent population shifts hinges on two occurrences: long-occupied village sites in the Potomac Piedmont were suddenly abandoned in the 14th century, and new types and styles of ceramic ware suddenly appeared in the Coastal Plain (Potter 1993:126-138; Slattery and Woodward 1992).

Throughout much of the Early and Middle Woodland periods (c. 1000 BC to AD 800), communities in southern Maryland and elsewhere in the Coastal Plain were producing low-fired ceramic pots tempered with shell; that is, crushed shell fragments were added to the clay to make it malleable for making pots. Beginning in the 14th century, ceramics tempered with sand or quartz grit appear in the Potomac River valley. Though new to the Coastal Plain, this process was a relatively old one in the Piedmont, leading archaeologists to postulate a major migration into the Tidewater. The earliest evidence was found at the Potomac Creek site in Stafford County, Virginia, across the Potomac River from Maryland, and the Accokeek Creek site in Prince George's County. At both sites, immigrants from the Piedmont established new villages and fortified them, possibly against attack, although some archaeologists suggest that palisaded settlements may have also represented the demarcation of sacred space (Shephard 2009). Archaeologists estimate that as many as 500 immigrants may have resided in the two villages (Potter 1993:114-125; William and Mary Center for Archaeological Research 2009).

Known as the "Montgomery Hypothesis," the interpretation for a wholesale displacement of communities in both the Piedmont and Coastal Plain Potomac is complicated by the fact that, besides ceramics, other material practices in the Coastal Plain, including house forms and burial programs, do not appear to have clear origins in the Piedmont (Curry 1999). In addition, a Piscataway description of the nation's method for identifying leaders points to an Eastern Shore origin, at least for the group's first "king." Stephen Potter (1993) has attempted to reconcile the archaeological and historical evidence and argues that the two versions of Piscataway origins may not be mutually exclusive.

The archaeological record in southern Maryland reveals the appearance of a number of sites containing sand- or grit-tempered pottery dating to the Late Woodland period (AD 800 to 1600). Many of the sites were short-term base camps from which hunting and gathering expeditions were launched. Several were large enough to warrant identification as villages or towns, as evidenced by thick deposits of oyster shell, animal bones, and stone artifacts. Anywhere from ten to 25 arbor-like structures covered in reeds and known as longhouses or wigwams sheltered the residents, who were probably organized cooperatively by age and sex to produce food and life's other necessities. As at Potomac Creek and Accokeek Creek, many of these villages were fortified, with a majority of houses surrounded by a palisade of upright posts cut from sapling trees. Perhaps the region's growing population increased the competition for resources and led to inter-group hostility, thus spurring communities to protect their domestic compounds with wooden barriers (Potter 1993:149-161).

On the eve of the arrival of Europeans, the Native people of southern Maryland were living in semi-permanent dispersed villages or towns, practicing a form of slash-and-burn agriculture to clear land for planting corn, beans, and squash. Tobacco was also cultivated, primarily for ritual or spiritual purposes and not for recreational consumption. Hunting and gathering remained vitally important to the Late Woodland subsistence economy, and when residents left to hunt or fish at various times throughout the year, settlements would be temporarily vacated. The sites might be permanently abandoned once the soil in nearby fields was depleted and corn yields declined. Although each village or town had its own leader, or *tayac*, most of the southern Maryland settlements at this time were probably tied to Moyaone (or Piscataway), the capital of the Piscataway chiefdom. The strength of the relationships, however, would have weakened with distance (Potter 1993:149-161).

The migrations of the 14th century in the Chesapeake Tidewater were just the beginning of major movements of people throughout the region. Iroquois groups from the northeast were pressing into southern Maryland as early as the 15th century, traveling down the Chesapeake Bay from what is now Pennsylvania and New York, raiding Algonquian communities they encountered along the Bay's western shore. The Algonquians living there withdrew up the rivers, abandoning large tracts of land as they sought refuge from the Iroquois. The remaining groups lived in or close by well-fortified village compounds. Meanwhile, from the south, Powhatan was working, by the late 16th century, to expand the reach of his power over Virginia groups in the vicinity of the James and York rivers and tributaries (Clark and Rountree 1993:112-135; Potter 1993:174-179).

Nations even less familiar than the Iroquois began to appear in the Chesapeake Bay area in the late 16th century with the arrival of, first, the Spaniards, and then the English. Although the records do not suggest any direct encounters early on between European explorers and the indigenous people of southern Maryland, the groups living in the region were almost certainly aware of these strange new people and their even stranger customs. The indigenous groups may have even acquired glass beads and copper through trade with other groups that had come into contact with the Europeans.

By the second quarter of the 17th century, when Europeans were taking up land in the Potomac River valley, Native groups were now in relatively continuous contact with the immigrants. Dispersed settlement coupled with a desire for trade and access to goods kept conflict to a minimum, at least in this part of the Chesapeake world (Merrell 1979). By c. 1650, however, European settlement was expanding and intensifying.

Early Colonial History of St. Mary's County

It is possible that early Spanish explorers were in the Potomac River in the late 16th century. A description by Captain Vincente Gonzales in 1588 describes a "large fresh-water river" located at a

latitude of 38 degrees the explorers named San Pedro. The Potomac River begins at exactly 38 degrees in latitude. The earliest surviving record of an English presence in the Potomac drainage dates to 1608, when Captain John Smith entered the river for the purpose of creating his now famous Map of Virginia (Figure 1) (Rountree, Clark, and Mountford 2007). Smith's map has since served as an important baseline for interpreting Native settlement in the Potomac at the time of initial contact with Europeans. Smith's map presents to the viewer what was then a wholly indigenous world, albeit through English eyes.

Figure 1. Captain John Smith map of Virginia, published 1612 (Source: Library of Congress).

Smith sailed into the Potomac in June, 1608, traveling from Cornfield Harbor on the river's north side to Nomini Creek on the south side. He and his crew engaged Sekakawons (Chicacoans) and possibly Wiccocomicos, with peace "made all around" before the English party continued their northward journey for the falls (Rountree, Clark, and Mountford 2007:94). At Nomini, Smith encountered Mosco, a Wiccocomico man with a heavy beard; the beard may have indicated European ancestry from earlier interactions. After departing Nomini, Smith's party traveled north to what would later be named St. Clement's Bay by the English and, just north of St. Clement's, the Wicomico River. While leaving the Wicomico, it appears that Smith stopped at the chief's town of Cecomocomoco. From there he continued north to the Port Tobacco River, then Nanjemoy Creek, and then back to the south side of the river to Patawomeck. In all, Smith's travels in the Potomac lasted a little more than five weeks and, while he recorded little about his visits in that river, his map depicts settlements and their hierarchy as Smith understood them (see Figure 1).

Smith's generally positive encounters in the Potomac set the tone for Anglo-Native relations in the river's drainage for the next two decades. The Virginians at Jamestown (1607) came to view the Potomac as a "granary…, peopled with intact and autonomous Indian communities capable of providing [corn and furs] to the small, struggling colony" (Rice 2008:82). For the Algonquian chiefs who typically controlled food surpluses, the arrangement worked well as the English became an important source of copper and glass beads and an opportunity to loosen Powhatan's grip on their respective nations (Rice 2008:82). Thus began friendly enough relations that brought Virginians on a regular basis to the Potomac and at least one trip by the Patawomeck werowance to Jamestown. Opechancanough's 1622 attack in Virginia and both Native and colonial fears and uneasiness about who was allied with who required constant diplomacy, but relations between the English and the Patawomeck remained workable into the late 1620s and early 1630s (Rice 2008:82-91).

In 1629, George Calvert, the first Lord Baltimore, departed his colony in Newfoundland, where he had just spent several very cold months. Although the Calvert family never legally abandoned their Newfoundland colony, even mounting lawsuits mid-century to counter efforts they saw as encroachment, George Calvert wanted to cast his gaze southward. On that trip from Newfoundland to England, Calvert traveled through the Chesapeake region, found the countryside much to his liking, and, in the process, alienated Virginians "who knew perfectly well what he was up to" – that is, looking for a new place to establish a colony (Rice 2008:93). Calvert no doubt was aware of the "breadbasket" role the Potomac was then filling and, given the region's comparatively mild weather, he immediately pressed Charles I for a charter to lands in the northern Chesapeake, including the entire Potomac. Calvert died before the charter was issued but the king, interested in keeping other European nations out of North America, granted the Maryland charter in 1632 to Cecil Calvert, George's son and the second Lord Baltimore.

In 1634, Leonard Calvert, the younger brother of Cecil Calvert and the appointed governor of the Maryland colony, led a band of Englishmen aboard *The Ark* and *The Dove* into the Potomac. The expedition went to Piscataway on present-day Piscataway Creek (Prince George's County) where Calvert conferred with the tayac, or chief, of the Piscataway. Wannas received the English guardedly, with bowmen at the ready. Advised by Henry Fleet, the Indian trader and translator who had previously been held captive by the Anacostin to the north of the Piscataway, Calvert asked the tayac where the English could take up land. Wannas' response to Calvert was "that he would not bid him goe, neither would hee bid him stay, but that he might use his owne discretion" (Hall 1910:72). The tayac's statement was tactfully strategic; the Piscataway, while still a significant force, could not afford another enemy, given their relations with groups to their north and south. Nonetheless, their previous encounters with the Virginians necessitated extreme caution in attempting to ally themselves with new groups (Merrell 1979:554-555).

Calvert decided to settle further downriver, "purchasing" land from the Yaocomico and founding St. Mary's. The Yaocomico were at the time planning to vacate their town to remove to another area which would offer greater protection from Susquehannock raids (Hall 1910:74). Governor Calvert and the English came ashore, renamed the settlement St. Mary's, and erected a fort. They also went about establishing a system of government as set out in the Maryland Charter. Despite accounts of friendly interaction with the Yaocomico and the Patuxents, Maryland-Indian relations generally seem to have been cagey in the colony's early years. The 1638 Jesuit Letter, for example, reported that

> …the rulers of this colony have not yet allowed us to dwell among the savages, both on account of the prevailing sicknesses, and also because of the hostile acts which the barbarians commit against the English, they having slain a man from this colony, who was staying among them for the sake of trading, and having also entered into a conspiracy against our whole nation (Hall 1910:119).

Tense relationships with the Indians or not, the Maryland English nonetheless continued to trade with the Native population. The same year of the Jesuit account, in 1638, the Maryland Assembly passed a law requiring colonists to obtain a license to trade with the Indians both to prevent price inflation of Indian corn and goods and to prevent mistrusted individuals from conspiring with the Indians against the Calvert family's nascent Maryland enterprise (Archives 1:42-44). In addition, the Calvert family enjoyed revenues from the issuance of trade licenses.

Lord Baltimore envisioned the settlement of St. Mary's City as a reproduction of England, instructing his commissioners that streets be laid out and "…oblige every man to build one by an other…" and that each house have an adjoining garden in the rear (Hall 1910:22). Despite Baltimore's wishes, settlement in the area around St. Mary's City was sparse. A contributing factor to this was the reward of large tracts of land for those who transported indentured servants into the colony. By 1642, the town of St. Mary's contained only ten dwellings, despite the fact that the English population in St. Mary's County had risen to near 400 people (Carr 1974:11, 128).

A total of sixteen manors had been established in St. Mary's County by 1642, totaling 31,000 acres (Carr 1974: 73). These manors were established in different hundreds (a form of political jurisdiction) throughout the county. A summary of the manors patented between 1634 and 1663 has been adapted from Regina Combs Hammett's book *History of St. Mary's County Maryland* and is displayed in Table 2.

Attempts to develop St. Mary's City into a more recognizably urban jurisdiction were met with limited success. Archaeologists from Historic St. Mary's argue that the Calverts intended a baroque design for their capital that emphasized not only their political sovereignty but their Catholicism (Miller 1988), although some historians question this (Musselwhite 2012). It is the case that, in 1676, the year the brick state house was built, Governor Charles Calvert, the Third Lord Baltimore and Maryland proprietor, described the settlement as "…where the General Assemblye and Provincial Court are kept and whither all shipps tradeing there doe in the first place resort, but it can hardly be called a town…" He also claimed that, outside St. Mary's City, the settlement is so sparse that "there are not fifty houses in the space of thirty myles…" (Archives 5:265-266).

Several legislative attempts were made to establish towns outside of St. Mary's City, the first in 1683 with the *Act for the Advancement of Trade*. This act called for the establishment of three towns within St. Mary's County, and more particularly described as "att the Citty of St. Marys, att Brittons bay, att John Bayleys or Taunts, and att the Indian Towne att Chaptico his Lordshipps mannor" (Archives 7:540, 609). Other suggested town sites between 1683 and 1708 included Harvey Town at Town Creek, St. Joseph's Town at Abbington Creek, St. Jerome's Towne on St. Jerome's Creek, Newtowne at Newtowne Neck, St. Clement's Town at the head of St. Clement's Bay, Wicomico Town between White and Bluff Points, and Sheppards Old Fields at the head of Breton Bay (now Leonardtown). Only one town, Leonardtown, developed into a town after it became the new county seat in 1708 (Thomas 1913:326; Hammett 1977:23). These towns would have both economic functions and political value, extending the Calvert family's jurisdiction beyond the colonial capital at St. Mary's (Musselwhite 2012).

Attempts to establish towns were not made easy by ongoing conflict between the Calverts and colonists antagonistic toward their rule during the 17th-century. In 1642, civil war broke out in England, pitting parliamentarians against royalists. Central to the conflict was the role of religion, with the Anglican royalty clashing with the mostly Puritan parliament. Baltimore, a Catholic, did not seek to antagonize either side, knowing that whoever was the victor would have a say in the matters of his colony. In January of 1643, Richard Ingle, a merchant trader, was arrested while anchored off Longworth Point (near St. Clement's Island) for uttering treasonable words against the King. Ingle was later released, but by February of 1645 he had returned to Maryland, where he commandeered the Dutch ship *Speagle* near the mouth of St. Inigoes Creek .

Year	Name	Grantee	Acreage	Hundred
1634	Trinity	Gov. Leonard Calvert	600	St. Michael's
1634	St. Gabriel's	Gov. Leonard Calvert	900	St. Michael's
1634	St. Michael's	Gov. Leonard Calvert	1,500	St. Michael's
1634	West St. Mary's	Henry Fleete	2,000	St. George's
Before 1636	St. Jerome's	Jerome Hawley	6,000	Unspecified
Before 1636	St. Helen's	Jerome Hawley	Unknown	Unspecified
1638	Evelynton	Capt. George Evelyn	1,200	Unspecified
1639	St. Elizabeth's	Capt. Thomas Cornwaleys	2,000	St. Inigoes
1639	Manor of Cornwaleys Cross	Capt. Thomas Cornwaleys	2,000	St. Inigoes
1639	St. Inigoes	Ferdinando Poulton	3,000	St. Inigoes
1639/42	St. Clements	Thomas Gerard	1,030/6,000	St. Clement's
1639/40	Snow Hill	Abell Snow	1,000/6,000	St. Mary's
1640	Little Brittaine	William Bretton	850	Newtowne
1640	St. Anne's	John Lewger	1,000	Patuxent
1640	St. Richard's	Richard Gardiner	1,000	Harvey
1642	St. Joseph's	Nicholas Harvey	1,000	Harvey
1642/43	Westbury	Thomas Weston	1,250	St. George's
1650	De la Brooke	Rev. Robert Brooke	2,000	Resurrection
1650/51	Resurrection	Capt. Thomas Cornwaleys	4,000	Resurrection
1650/51	Basford	Thomas Gerard	1,500/4,000	St. Clement's
1651	Fenwick/ St. Cuthbert's Manor	Cuthbert Fenwick	2,000	Resurrection
1663	Mattapany Sewell	Henry Sewell	1,000	Harvey

Table 2. Early St. Mary's County manors (Adapted from Hammett 1971).

Ingle, with two armed ships, sailed up the St. Mary's River to St. Mary's City. There was little resistance and Ingle was able to swiftly wrest control of the colony. Ingle's occupation was colloquially known as the "plundering time." Ingle's forces seized the property of "papists and malignants," and arrested the Jesuit leaders Father Andrew White and Father Thomas Copley. White and Copley were put in chains and transported to England. Colonists were also required to take an oath against Lord Baltimore and the King. Leonard Calvert ultimately retook the colony in 1646 after raising a force of Virginians and

fugitive Marylanders that had sought refuge across the Potomac during the plundering time (Maryland Historical Magazine 1906:128; Ingle 1884; Archives 1:238,270; Hammett 1971:32-34; Riordan 2004).

Not long after Ingle's rebellion was another test to Calvert family rule in the colony. In March 1660, the Council and Assembly were meeting at the home of Robert Slye along the Wicomico River in St. Mary's County. During the meeting, Governor Josias Fendall, with the support and loyalty of his friend, Thomas Gerard, questioned the need for consent of Lord Baltimore to make and enact laws. Fendall declared that he believed "the intent of the King in his Lordships Pattent was that the freemen by writ assembled either by themselves or their deputies should make and enact laws, and these laws soe made were to be published in his Lordships name," and therefore Fendall and his cronies concluded they were within their rights to dissolve the Upper House, where Baltimore's power was vested (Archives 1:389). In essence, Governor Fendall, who had served Baltimore well in battle and to that point as governor, was now seeking to remove the proprietor from the process of governing in Maryland.

Lord Baltimore reacted swiftly. By June, he had had his agents in Maryland collect depositions concerning Fendall's move against his government, with Samuel Tilghman acknowledging that Fendall "did rayse a faction against" Lord Baltimore and sought to "change the government into the forme of a Commonwealth" (Archives 3:387). When the Council convened on November 29, 1660, Fendall was no longer governor and Philip Calvert was in his place. Fendall, who had been ordered to jail until further notice, appeared before the Council with Thomas Gerard, pleading to let them "go off in peace." Fendall promised to return back to his home in Charles County and not seek public office. Philip Calvert was having none of it, declaring that both men were to be tried and further recommending Fendall's estate be confiscated and Fendall put to death. With regard to Gerard, Calvert recommended that his estate also be confiscated and Gerard banished from the province. Three days later, the Provincial Court declared that all acts and orders during the "time of defection" (that is, between March and November 1660) "be null and of noe force and that the same be forthwith razed and torne among the records" (Archives 41:379).

In 1689, with Charles Calvert, the third Lord Baltimore in England, John Coode and Nehemiah Blackistone led an uprising against the proprietary government which has since been called the Protestant Revolution or Revolution of 1689 (Carr and Jordan 1974). This event corresponded with the Glorious Revolution happening in England at the same time with the ascension of William and Mary to the throne. In July of that year, as forces under Coode were preparing to attack St. Mary's City, William Digges (son-in-law to Charles Calvert) assembled a defensive force inside the State House; unfortunately for Digges, the men were not willing to fight. Digges was forced to surrender and Coode seized the records held there (Archives 8:155-156). The rebels then marched to Lord Baltimore's plantation at Mattapany, where they seized the colonial magazine and imprisoned those loyal to Lord Baltimore (Chaney and King 1999).

The 1689 revolution brought the beginning of an end to Calvert family rule in Maryland at least in the way the family held power throughout most of the 17th-century. Coode and his allies, known as the Protestant Associators, used William and Mary's ascension to the throne as a pretext, arguing that the new king and queen had not been recognized in Maryland. Unfortunately for Lord Baltimore, as his messenger announcing the news had died en route, delaying a formal announcement from the proprietary government.

In 1694, shortly after the successful overthrow of the Calvert family government, the capital was moved from St. Mary's City to its present location in Annapolis in Anne Arundel County. Governor Francis Nicholson, the second Royal Governor of Maryland following the revolution, sought to move the capital to a more central location. The area near present-day Annapolis also happened to be a more Protestant location (Archives 25:178; 26:44-45, 340-341, 431-432). Following the removal of the capital from St. Mary's City, the town was gradually converted to farmland. With the center of political and economic power moved to the north, St. Mary's County began to decline.

Although, politically, the 17th century was a period of intrigue and rebellion, most colonists were focused on the production of tobacco, a stable crop grown on the plantations that appeared along the waterways and in other areas where good soil was to be found. Only a small percentage of the people who arrived in the colony between 1634 and the end of the 18th century arrived as free men or women. Instead, the overwhelming number of colonists came as servants. Planters -- free men and women who were able to gain land through the use of a headright system based on the number of immigrants transported -- steadily established farms along the county's rivers and creeks, raising tobacco and corn using methods and techniques learned from their Native neighbors. Plantations were relatively isolated with an average of only about seven people per square mile as late as 1705. Days were spent clearing acreage; planting, tending, and harvesting tobacco, corn, and vegetables; repairing buildings and fences; and when conditions finally demanded, abandoning old and exhausted fields for new ones Carr, Menard, and Walsh 1991).

Initially, the European population was predominantly male, servants who had bound themselves to a planter for a specified term of service, usually five to seven years, in exchange for transportation to the colony. Life expectancy for free people and servants was short, with the average age at death for male immigrants ranging between the ages of 42 and 46. These statistics do not include the people who died of the "seasoning," the period after arrival in the colony when malaria, dysentery, and a host of other maladies frequently struck. Women also lived relatively short lives, although the evidence suggests that married women in nearby Charles County were twice as likely to survive their spouses. Further, every pregnancy posed life-threatening risks. Historians have estimated that as many as 50 percent of the children born to European parents in the Chesapeake Tidewater died before their 18th birthdays. The surviving children could expect that one or even both of their parents would die before the children reached the age of 18 (Carr, Menard, and Walsh 1991; Rutman and Rutman 1979:158-161; Walsh 1979:151-152; Walsh and Menard 1974:211-217).

Such high morbidity and mortality rates meant that the colonial population was sustained by immigration. A predominantly native-born population did not emerge until the early 18th century. Furthermore, the ratio between men and women was out of balance. Men were preferred as farm laborers and constituted the majority of immigrants, although women who performed domestic work were also highly desired. An unmarried planter, even a relatively poor one, was likely to purchase a female servant to help with household chores and maintenance. But although such domestic help was sought after, the greater demand for field labor meant that from two to four males emigrated for every female (Carr and Walsh 1977:552-553, 1979:206-242).

People of African descent were in St. Mary's County from the time *The Ark* and *The Dove* arrived in the colony in 1634. Africans were brought to St. Mary's to provide -- not unlike indentured servants -- labor for tobacco cultivation. The difference, of course, was that servants came voluntarily, while most Africans did not. Initially, the number of Africans was small, comprising 2 percent or 3 percent of the total population. And not all Africans arrived as slaves, nor did all slaves of African ancestry remain bound for life.

One of the most "famous" Africans to arrive in Maryland in 1634 was Mathias de Sousa, who came as a servant to the Jesuits. Recent scholarship has questioned de Sousa's identity (King and Chaney 2011), but people of known African origin were in Maryland from the beginning of permanent English settlement. Marylanders were holding African slaves, that is, in bondage for life, by the 1650s, although, as Kimmel (1974) and others have noted, not all Africans were enslaved. In 1653, for example, John Baptiste, a "Moore of Barbary," was able to convince the Provincial Court that he was an indentured servant and not a slave. Henry Quando, who arrived in neighboring Charles County as a slave, was freed by the terms of his master's will and soon became a small planter himself (Walsh 1979:192-194). Quando was married to an African woman.

Perhaps the most well-known African immigrant from anywhere in the 17th-century Chesapeake was Anthony Johnson (cf. Breen and Innis 1980; Cox 2009). Johnson, who had come to Virginia as a servant, gained his freedom, married an African woman, had children, and made his residence on the Eastern Shore. He subsequently moved to Maryland's Somerset County, also on the Eastern Shore, where he owned a considerable amount of property, including land, livestock, and personal possessions.

Despite the experiences of Baptiste, Quando, and Johnson, most Africans who arrived in 17th-century Maryland remained bound for life. In an analysis of slaves enumerated in probate inventories recorded for four counties on Maryland's western shore including St. Mary's, Russell Menard (1975) found that the slave population grew "at an extraordinary rate" between 1658 and 1710. He estimates that the proportion of enslaved people in the immigrant population grew from about three percent, or 100 individuals, in the late 1650s to about 24 percent, or about 3,500 individuals, in 1710 (Kimmel estimates that, for the entire colony c. 1660, the population of Africans amounted to 760 souls, or nine percent of the population, excluding Native Americans). Especially rapid growth in the number of slaves acquired by planters began in the mid-1670s and sharply accelerated in the 1690s (Menard 1975: 30-31). Most of the enslaved men and women in the colony were, Menard found, African born, with demographic, mortality, and morbidity patterns not unlike those experienced by European immigrants. Men outnumbered women, while women outlived men.

Throughout the century, Africans were distributed across the landscape in relatively low densities, with most planters owning at most only one or two slaves. From these patterns of distribution, historians have concluded that Africans were even more challenged than the English in forming families. This conclusion assumes Africans preferred African partners and English preferred English partners, but such an assumption may be unwarranted. Laws were repeatedly passed by the Maryland assembly throughout the 17th century to prevent sexual relations between Africans and Europeans. Indeed, Eleanor 'Irish Nell' Butler, a servant in the household of Thomas Notley (near Chaptico), and her African husband, Charles, a slave in the same household, ran afoul of those laws with devastating consequences for their children and grandchildren (Bauer, King, and Strickland 2013). Butler knew the consequences, because Lord Baltimore himself had told her when he tried to talk her out of the marriage. Menard and other historians argue that the low numbers of Africans on plantations was "a fact with long-term implications for race relations, the process of assimilation, and the survival of African patterns in the New World" (Menard 1975:34). On most individual holdings, Africans and Europeans had to work cooperatively to ensure agricultural productivity, although whether such relationships mitigated against class and racial alienation remains untested (see also Deetz 1977; Glassie 1975).

While holdings of only one or two slaves were common, larger holdings were not rare. Menard found that, between 1658 and 1710, approximately 13 percent of lower western shore planters (including St. Mary's County) owned more than ten slaves, with 15 planters owning more than 20 slaves. Those who commanded larger labor forces typically divided them up and sent laborers to work on outlying plantations. At his death in 1681, Colonel Benjamin Rozer, a wealthy Charles County planter living on a plantation at the head of Port Tobacco Creek, owned 69 male, female, and child slaves or indentured servants. Some of these laborers worked at Rozer's home plantation; others were distributed among various quarters within the county. With one exception, Rozer appears to have organized his labor force along lines of ethnicity; servant and/or slave quarters were either all English or all African. Rozer, a Protestant married to Jane Sewall, the third Lord Baltimore's daughter, was "a remarkable case" (Main 1982:130) because of his wealth and the number of laborers he controlled at this early date. The way Rozer organized his servants and slaves across his substantial holdings, however, probably mirrored elite English attitudes toward everyday interaction with Africans (Main 1982:130-131).

Indeed, Rozer's in-laws, the Calvert family, promoted the use of slaves in the colony. ttom of which is held by his grandson, also Cecil. While Cecil Calvert never came to Maryland, his eldest son, Charles Calvert, the third Lord Baltimore and Rozer's father-in-law, did, and Cecil almost certainly

owned slaves as well. The Calvert family encouraged the importation of slaves into the colony, and they probably also encouraged the assembly to pass a series of laws circumscribing the social and legal status of people they described as "Negroes." The first law, passed in 1664, followed on the heels of the arrival of the ship *Blessing*, which delivered 158 Africans from the Senegambia to Maryland shores (Trans-Atlantic Slave Database). This 1664 law, "An Act Concerning Negroes & Other Slaves," recognized "Negro" slavery as a prior practice and declared that "all Negroes or other slaves already within the Province And all Negroes and other slaves to bee hereafter imported into the Province shall serve Durante Vita," that is, for life. What was more, the Assembly declared, any English woman who married a slave would become a servant for life, and their children would be born into the condition of permanent servitude, or slavery. This was the law that impacted Charles and Eleanor Butler, who met while both were bound to Thomas Notley's plantation in Chaptico.

Where in Africa did these immigrants come from, and how did they arrive in Maryland? Lorena Walsh points out that, for the colonial period as a whole, far fewer Africans came to Maryland than to Virginia: while 80,000 captives were brought to Virginia between 1658 and 1773, just under 25,000 were brought to Maryland during the same period. Walsh attributes this to the larger average size of plantations held by the Virginia elite. Brought to Maryland by British slave traders and local Chesapeake traders, most slaves arrived directly from Africa. In the early period, at least through the second quarter of the 18th century, .about a third of the Africans imported into Maryland came from the Senegambia region of West Africa, although captives from the Gold and Windward Coasts, Bight of Biafra, Sierra Leone, and Bight of Benin found themselves in Maryland. Later, proportionally more captives were brought from Angola or west central Africa.

By the beginning of the 18th century, enslaved Africans, although present from the beginning of European settlement, were becoming the primary source of labor for the elite. The course of economic and social development in St. Mary's County and the rest of southern Maryland was set. The Piscataway as an organized nation had left Maryland (although many Piscataway remained behind) and the numbers of English and Africans were growing. The overall gain in population spurred demand for land and tobacco even though the price of tobacco, which had plummeted at the end of the 17th century, remained depressed. Increasingly, economic success was far more likely for those who already owned land and labor, usually inherited. Society was becoming even more stratified, with planters owning 500 or more acres ensconced at the top and enslaved people at the bottom. In nearby Charles County, the elite landholders comprised a mere 1 percent of the total population by mid-century, whole landowners of any size parcel formed only about 5 percent, with the median tract size about 200 acres. Slaves made up a full 38 percent of the population in Charles County (Lee 1994:268, 272).

The 18th-century houses that survive in St. Mary's County, including Sotterley (1703), Mulberry Fields (1755), Newtowne Manor (1789/1817), Tudor Hall (1798), and a few others, reflect the lives and lifestyles of the wealthiest landowners. Three -- Mulberry Fields, Newtowne Manor, and Tudor Hall -- are of brick construction, and as such are very rare. Most houses were of frame construction with brick used at most in foundations and chimneys.

As producers of tobacco and, to a lesser extent, Indian corn, the St. Mary's County plantations were an important part of the world economic trade that moved across the Atlantic. Tobacco was shipped to English and European markets, and the profits were used to purchase men and women imported from Africa to work on Maryland plantations. Livestock was raised for local consumption and for transport to the West Indies in exchange for rum and sugar. Planters also raised wheat, oats, rye, and barley, rotating these crops, along with corn, through their tobacco fields, and in their orchards, they grew fruit, including apples and peaches. Surplus grain and fruit were exchanged locally, as were turtles, fish, crabs, oysters, ducks, geese, and deer. Some English households experimented with producing silk or wool, the latter evidenced by the listing of spinning wheels in inventories. The planters' efforts to diversify waxed and waned with the tobacco market (Lee 1994:15-84).

Prosperity returned to the Chesapeake tobacco-based economy beginning in the 1740s. Price swings continued, but tobacco prices were generally less volatile and recoveries more rapid. After 1747, the quality and reputation of Maryland tobacco exports improved due to a law requiring mandatory inspection of hogsheads at public warehouses prior to shipment. The removal of substandard tobacco may have helped to raise prices. The increased stability led British merchants to extend more credit to Maryland tobacco planters. Wealthy families remained wealthy, while people without access to land and labor remained impoverished. Those without prospects who had the ability to flee left in search of better economic opportunity on the frontier, beyond the borders of St. Mary's County (Kulikoff 1986:118-121).

The economy was especially strong in the 1760s. The stratified society that existed on the eve of the Revolution and included several thousand slaves created a level of economic security and comfort for the county's white population. The consumer revolution, which had spread from England to America beginning in the late 17th century, generated new kinds and styles of material possessions that made life more comfortable. These goods could also mark one as an Englishman, which is precisely what the colonists, especially the elite, wanted. But, of greater importance in the long run, the planters of southern Maryland now had the means to engage in tactics intended to persuade Great Britain to reconsider its treatment of the colonies (Hoffman, Carson, and Albert 1992; Lee 1994:266, 268).

Things were about to change. Britain had firm ideas about how the colonies should help finance their own defense, and, in 1765, it passed the first of a series of acts that commanded colonial attention like nothing else before. The American Revolution has become a defining event in our national narrative, but it was an event that, as historian Jean Lee (1994) has concluded, extracted an especially high "price for nationhood." While no military battles were fought in the county, British ships focused on St. George's Island (near Piney Point) where they planned to land and secure provisions. The St. Mary's County militia harassed the ships, and the British navy engaged in "unrelenting plundering" of the many plantations located along the county's waterways.

Although St. Mary's Countians supported the war, at war's end, St. Mary's, like its neighbors in Charles and Calvert counties, went into an economic and social decline from which it would not fully recover until well into the 20th century. The decline was not directly caused by the Revolution, but by soil exhaustion and debt, but the Revolution created new economic and social conditions for which the county's residents were unprepared. Tobacco prices had dropped precipitously in late 1772, sending the economy into a depression that lasted for several years. Low tobacco prices meant that planters had to assume even more debt than normal to pay for British goods, and it took them longer to repay their creditors. Planters resisted with suggestions for a forced trade embargo with Great Britain, but the embargo happened in 1775, rendering that year's crop worthless.

At war's end, the voting franchise had been expanded, legal distinctions between Protestants and Catholics, and the coming end of the slave trade (1783) transformed southern Maryland. But the future was not as bright as it might at first have appeared. A severe economic depression beginning in 1785, the refusal if the British government to allow American participation in the West Indies trade, growing personal debt among many planters and soil exhausted from the cultivation of tobacco and corn combined to reverse the fortunes of some of the count's richest planters and to impact the economic standing of many others. What's more, the Treaty of Paris insured that prewar debts owed to British creditors would stand (Lee 1994:227-247).

An exodus from St. Mary's County that had begun before the Revolution escalated. Tobacco prices were again in decline, in part because of the depleted land and the labor costs of its production, but also because of slowed demand in war-torn Europe. Wheat was being grown along with Indian corn, and planters were intensifying their use of fields through wide scale plowing and the increased use of fertilizers and other soil additives. Freshly plowed fields thick with nutrient-rich plasters may have looked better than abandoned fields left to regenerate, but the enhanced soils were environmental time bombs.

When heavy rains hit the fields, they washed topsoil and nutrients into the creeks and rivers. The rivers were depleted, the waterways severely polluted and the harbors silted in. This was the case in Chaptico (Earle 1988).

The 19th/20th-Centuries in St. Mary's County

By the early 19th century, southern Maryland was not sharing in the extraordinary growth occurring in northern and western Maryland. Southern Maryland farmers remained committed to the production of tobacco, still a labor-intensive, land-hungry crop. A plantation economy centered on tobacco and to a lesser extent wheat dominated the region, with the majority of the labor, at least on the larger farms and plantations, provided by an enslaved workforce. Antebellum southern Maryland society more closely mirrored antebellum society in the South than it did in northern Maryland. At the top of the social hierarchy was a small, wealthy class of planters that controlled land, politics, and a good deal of the labor. In contrast, most free families, usually white but some black, struggled to make ends meet from year to year. At the bottom of the hierarchy was more than half of the population: enslaved black men, women, and children with virtually no economic and legal rights (King 1994:283-289; Marks 1979; Ridgway 1979:20-43).

Since southern Maryland farmers shipped their tobacco and grain directly to Baltimore with minimal processing and purchased the majority of their domestic and agricultural products from Baltimore mills, factories, and stores, local industrial and urban development remained limited. The economic emphasis on tobacco, with its demand for land and labor, precipitated a crisis for many southern Maryland planters and farmers beginning in the early 19th century. Land and labor costs were simply too high to justify investment, and the economic depressions following the Panics of 1819 and 1837 undermined the financial stability of many families. A large number of these families left the region for lands opening in the west, and new families did not arrive to take their place. The region's population grew by only two percent between 1790 and 1850. In contrast, northern and western Maryland experienced a more than 200 percent growth in population during the same period. Consequently, southern Marylanders found themselves increasingly isolated – economically, socially, and politically – from the rest of the state. The system would not collapse, however, as long as the families that controlled the land also controlled the politics. For this small number of elite families, political control and carefully arranged marriages made limited economic success possible (Fields 1985:1-22; Ridgway 1979:20-43).

From legal documents, we know that fields used for the cultivation of tobacco, corn, and wheat distinguished southern Maryland's landscape. Tobacco and corn were planted in the spring, and wheat was sown in the fall. Farmers would rotate the crops grown in these fields, with a few years of tobacco followed by some years of corn and then a period of fallow. Although the period of fallow allowed the land to regenerate, it was often perceived by travelers to the region as abandoned and wasteful, and fallow land became a regular target for reform minded agricultural critics. As much as half the land in the region was under cultivation by mid-century, and fallow fields, with their abandoned appearance, formed a large part of the visible physical landscape (King 1994:284).

The Annual Valuations of the Orphan's Court for St. Mary's County provide information about the types and conditions of buildings on these farms. The valuations, produced by neighbors to protect the interests of orphaned children, describe the management of these farms in some detail. Farms contained an average of six wooden buildings, including a dwelling, kitchen, corn house, meat house, barn, and quarter. Nearly all of the dwellings (including the quarters) described in the valuations were of frame or, sometimes, log construction, and fully one-third of these dwellings were described as "in bad repair." Farm buildings were in slightly better shape, although fencing was generally in poor condition (King

1994:284-285).

Other documents survive that allow us to infer how both the region's residents and visitors to the area perceived the tobacco landscape of southern Maryland. In particular, agricultural journals provide some insight into how tobacco landscapes were viewed by the region's farmers. Two journals, the American Farmer (1819-1897) and the Maryland Farmer (1866-1887), were published in Maryland and include a great deal of material submitted by Maryland residents. The first editor of the American Farmer, John Stuart Skinner, had family connections in southern Maryland and, for a brief period, Skinner owned a large farm in the region on the Patuxent River. The journals include a number of articles from farmers and other residents throughout the state and suggest some of the perceptions and attitudes about tobacco and the tobacco landscape in the context of agricultural reform (Cashin 1994:477-500).

The articles indicate a considerable amount of concern about the agricultural landscapes of southern Maryland, especially with what the writers viewed as slothful, wasteful agricultural practices. Writers from outside the region saw the economic and political isolation of the region reflected in an impoverished landscape. As early as 1819, one correspondent reported that,

> nothing can present to the... eye a more dreary and miserable aspect, than the condition of most parts of the lower counties on the western shore of Maryland... Dreary and uncultivated wastes, a barren and exhausted soil, half-clothed negroes, lean and hungry stock, a puny race of horses, a scarcity of provender, houses falling to decay, and fences windshaken and dilapidating… The cause of this misfortune, the correspondent concluded, was "the cultivation of tobacco as a sole and entire crop" (Anonymous 1819:98-99).

In 1844, John Stuart Skinner, writing in the American Farmer on the condition of the "plantations of the middle and Southern states," observed that, "[i]n too many instances, houses [are] dark and dingy--windows broken--palings broken down--gardens demolished..." Skinner had owned one of these plantations in southern Maryland. The system of shifting fields used in tobacco cultivation in both Maryland and Virginia also caused concern. "In 1819... this [field] was planted in corn. Just in my eye, are two tenements, deserted. The plantation will soon be covered with pine, which seems to delight in relieving desolation." In a description of her visit in 1830 to the home of a land-owning farmer and his family in southern Maryland, Frances Trollope observed that, "[t]he farm... consisted of about 300 acres of indifferent land, but all cleared. The house was built of wood, and looked as if the three slaves [of the farm] might have overturned it... Near this mansion was a 'shanty,' a black hole, without any window, which served as the kitchen and all other offices, and also as the lodging of the blacks" ([Skinner] 1844:250; Smalley 1949:241).

Many southern Maryland farmers heeded the teachings of the agricultural reform movement, forming local agricultural societies, experimenting with their crops, and subscribing to the reform journals. Many of these farmers, including the Carrolls of Susquehanna, believed that tobacco could be profitably grown as part of a diversified approach. These farmers were, however, wealthier than many other smaller farmers, and they could afford the capital needed to invest in the production of other crops, especially wheat. They recognized the problems of exclusively raising tobacco and they, too, blamed less successful farmers for their blind devotion to the crop. Instead, these farmers experimented with methods they believed would remove some of the risk and uncertainty inherent in tobacco cultivation and produce a more valuable crop. They attributed poor farm management and the resulting "impoverished land" to cheap labor, not tobacco (King 1997:207-236).

St. Mary's remained dependent on tobacco throughout the 19th-century. This economy, built upon the institution of slavery, highlighted southern Maryland's historic association with the American South. During the Civil War, St. Mary's County and southern Maryland in general sided with the Confederacy. As early as 1859, residents of the county were organizing military units to support the Southern cause. Many residents crossed over the Potomac and into Virginia to both escape occupation by Union forces and to join the Confederate army. Likewise, 558 freed slaves from St. Mary's County were enlisted in the 9th Infantry Regiment, U.S. Colored Troops. Residents of the county also engaged in illicit smuggling across the Potomac into Virginia to aid the Confederate cause (Hammett 1977:108-121).

St. Mary's County remained occupied by Union troops throughout the war. Point Lookout, at the very southern tip of the county and marking the mouth of the Potomac River was an important strategic location. Installations at Point Lookout included the Hammond Union Hospital and the infamous prison camp for Confederate prisoners. The prison camp at Point Lookout could house as many as 10,000 Confederate prisoners. Several other military installations were established along the Potomac, including at coaling station at St. Inigoes and a supply depot at Bushwood Wharf, formerly known as Plowden's Wharf, near the mouth of the Wicomico River (Hammett 1977:110-121)

Following the Civil War, slavery in Maryland had come to an end. This created a dramatic shift in the labor force. The county was in economic dire straits when compared to the rest of the state, while still remaining dependent on the cultivation of tobacco. This led to a shift in the labor force towards sharecropping and tenant farming (Wesler et al. 1981:128). Many of the former slaves lived in communities not far from their place of former enslavement – making a living off of the same land they had worked before. At the same time, many smaller scale farmers in the post-war period vacated their land, allowing it to slowly revert back to forest (Camp 1977:49-51). While in economic decline, the social structure and ethnic makeup remained intact throughout the post-war period and into the early 20th-century. The upper class of society, as it had been before the Civil War, was made up of few wealthy white landowners. Tenant farmers and sharecroppers, both black and white, made up a majority of the overall population (Hammett 1977:297).

Other means of turning around the economic decline were explored and included the limited industrial development of seafood processing and canning plants in the latter decades of the 19th-century (Hammett 1977:150, 232). Portions of the county sought to assert itself as a travel destination, including a floating theater at Leonardtown Wharf, and a resort at Piney Point (Hammett 1977:172, 231).

At the turn of the century St. Mary's County remained much as it did following the post-Civil War period. There were some attempts by immigrant groups in the early 20th-century to establish themselves within St. Mary's County. Between 1911 and 1914, a community was established in St. Mary's City by the National Slavonic Society. The Slavic Farmer's Association was established there to encourage farming, commerce, and manufacturing. Ultimately this endeavor was unsuccessful, but many of those that moved here remained in the county (Hammett 1977:297).

Development in the county remained stagnant during the early 20th-century. Transportation proved to be a major issue affecting the ability of the county to produce and ship goods to other regions. Steamboat transportation saw a decline during the late teens and 1920s, with a gradual shift towards transportation by automobile. Only one road leading to Leonardtown was adequate enough for automobile transportation. County residents were of want for the development of a railroad through the county, but most attempts to establish one were unsuccessful. The Washington, Potomac, and Chesapeake Railroad only ran as far as Mechanicsville in the northern section of the county (Hammett 1977:238-239).

The economic condition change dramatically once America was catapulted into the fray of World War II following the attack on Pearl Harbor on December 7, 1941. This watershed moment would fundamentally change the landscape of St. Mary's County forever. By January of 1942, the Secretary of

the Navy approved the establishment of the U.S. Naval Air Station Patuxent River at Cedar Point at the mouth of the Patuxent River. This area was chosen for its isolation, but at the time St. Mary's County still had inadequate infrastructure in terms of overall transportation and access to the area (Pendleton et al. 1999:16).

Development of the area began in April of 1942, following the acquisition of the necessary parcels of land to develop the base. By the end of 1943, 7,000 people were employed at the station (Pendleton et al. 1999:20-21). Between 1940 and 1950 the population of St. Mary's County nearly doubled in size, rising from 14,626 residents to 29,111, according to the US Census Bureau. This marked a 99% increase in population in the county, compared to a 29% increase in the state as a whole. Neighboring Calvert County saw only a 15% increase during this same period. The decades preceding this, St. Mary's County's population was actually in a state of decline, with 16,112 residents being listed in 1920 (Forstall 1995).

St. Mary's County has seen continued growth ever since – having been transformed from a rural community in a slow decline to a major area of development. Though St. Mary's County is often noted for its rural nature, the establishment of the Naval Air Station has led to more urban and suburban development, especially within the communities of Great Mills, Lexington Park, and California along the Three Notch Road corridor leading to and from the base.

Chapter 5.

Previous Regional Archaeological Studies

Regional archaeological surveys which included St. Mary's County date as far back as 1889, when Elmer R. Reynolds, a founding member of the Anthropological Society of Washington (D.C.), surveyed the lower Potomac River in search of pre-Columbian shell mounds and large shell fields (Reynolds 1884, 1889). Because of the lack of records and known collections, it is unknown whether investigations in the late 19th and early 20th century employed either surface collecting or some form of excavation; most of the information about these surveys comes from brief reports prepared by the surveyors. Nonetheless, the information available from these surveys has proven to be useful

Reynolds' survey included the Wicomico River drainage, a portion of which flows through St. Mary's County, and Reynolds made note of four sites within the county itself. The most substantial shell field noted was one "being on the Plowden estate, called St. Clement's Manor;" this site also contained shell-tempered pottery. The Plowden estate is probably an area near Bushwood Wharf, once known as Plowden's Wharf. Other sites included "smaller and less interesting" middens found at Chickahominy, just north of Bushwood Wharf, south of Mill Creek, and other un-described areas nearer to the mouth of the Wicomico. Reynolds also describes a prehistoric cemetery on a property known as "'Indian Town,' on the headwaters of the Wicomico River" (Reynolds 1889: 256-257). This is likely the property known as *Indiantown* on the north side of Chaptico Bay. This is the location of Choptico Manor, which, in 1651, was set aside as a reservation for "certain Indians of several nations to wit the Mattapanians the Wicomocons the Patuxants the Lamasconsons the Kighahnixons and the Chopticons" (Archives 1:329-330; King, Trussell, and Strickland 2014).

In 1907, William H. Holmes, an archaeologist and anthropologist with the Smithsonian Institute described a single village site along the St. Mary's River, which is interpreted as representing the village of Yaocomaco. Yaocomaco, in 1634, became St. Mary's City, upon the arrival of English settlers on the *Ark* and the *Dove* (McMillan 1972: 89).

Amateur archaeologist and Judge William J. Graham documented a number of sites in St. Mary's County between 1900 and 1937. His investigations included visits to St. Clement's Bay in 1923, 1932, and 1934; Norris Landing on the Patuxent River in 1928; Mattaponi (now Patuxent River Naval Air Station) in 1929; Bushwood Wharf in 1932 and 1934; and Breton Bay in 1934 (McMillan 1972:90-91).

Tyler Bastian, serving as the Maryland State Archaeologist for the Maryland Geological Survey, conducted a surface survey of the east bank of the St. Mary's River between Church and Chancellor's Points in November of 1970. Bastian's survey included the recordation of 14 sites. Though unrecorded, Bastian also makes note of six other areas of interest where isolated finds were noted, recommending they be investigated further (McMillan 1972:237-239).

In 1971, Charles W. McNett of American University and William M. Gardner of Catholic University studied the distributions of artifacts associated with shell. McNett and Gardner identified 7 shell midden sites in Charles and St. Mary's counties (in Maryland) and in King George and Westmoreland counties (in Virginia) (McNett and Gardner 1971; McNett and McDowell n.d.; McMillan 1972:94).

Barbara Ann McMillan's thesis, *An Archeological Survey of St. Mary's County, Maryland* focused solely on prehistoric sites. The intent of McMillan's survey was to investigate representative

creek and inlet environments. She also sought to relocate, if possible, sites noted by Reynolds and Graham during the late 19th and early 20th centuries (Figure 2). McMillan primarily utilized a surface collection strategy, although she would excavate one or two 5x5 foot units in cases where diagnostic materials were found. McMillan was able to relocate seven sites identified by Judge Graham, but was unable to locate an eighth site referred to as "Mananack." This site is described by Graham as being 2,000 feet west of Carthagena Creek in Drayden, northwest of Buzzard Point (McMillan 1972). This site likely gets its name from the Native American village known as *Monanauk*, which appears on Captain John Smith's map of Virginia, published in 1612.

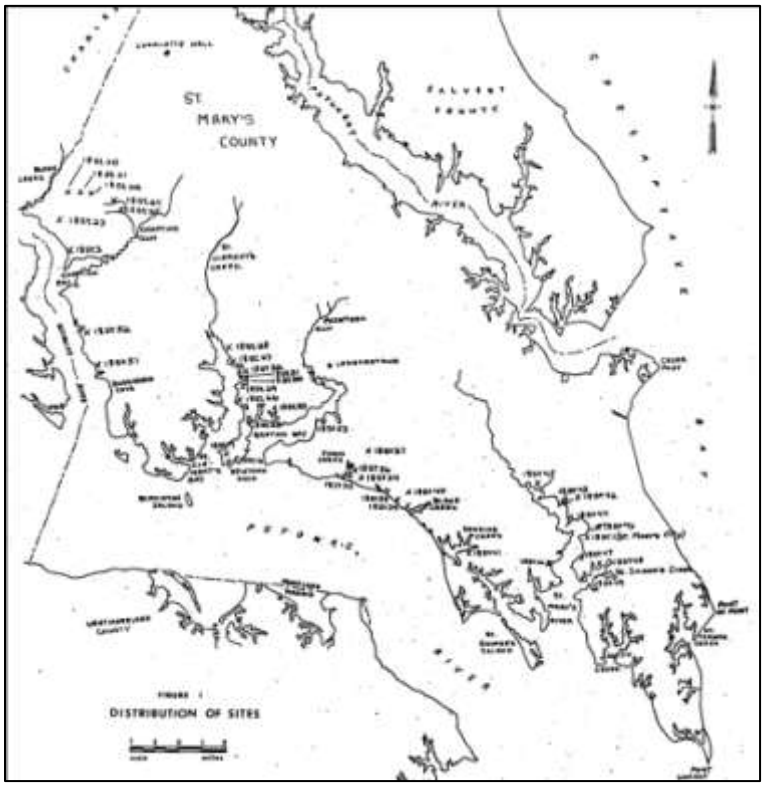

Figure 2. Map of sites investigated by Reynolds (1884/1889) and McMillan (Source: McMillan 1972).

In 1977, archaeologists Steve Wilke and Gail Thompson undertook a major survey of the Chesapeake Bay shoreline, identifying more than 700 archaeological sites in this large coastal zone. Their survey areas ranged all along the Bay and its tributaries, and a number of identified sites were located in St. Mary's County. A number of sites identified by Wilke and Thompson within the county were located principally along portions of the Wicomico near Chaptico Bay. These sites were later recorded by Jay F. Custer of the University of Delaware Center for Archaeological Research in 1986 (MHT 2015).

Other large scale and systematic surveys were conducted throughout the 1980s. This includes a large number of sites recorded by Historic St. Mary's City staff, most frequently from 1980 through 1986. In the early 1980s, Michael A. Smolek of the Southern Maryland Regional (Archaeological) Center (then based at Historic St. Mary's City) surveyed portions of the St. Mary's River valley, the Naval Electronic Surveillance Engineering Activity near St. Inigoes Creek (NESEA; today the Patuxent River Naval Air Station Webster Field Annex), and the Jesuit-owned Newtowne Manor property near Compton. At about the same time Smolek was conducting his surveys, Jeff Wanser (1982) was examining collections in the possession of landowners throughout southern Maryland in an effort to develop a regional narrative for settlement. Throughout 1983, Paul Cissna and Robert Hurry surveyed large tracts of land in St. Mary's owned by the Maryland Department of Natural Resources.

Other survey projects have been required under Sections 106 and 110 of the National Historic Preservation Act of 1966, particularly on Federally-owned properties such as the Patuxent River Naval Air Station (PAX River) and the associated Webster Field Annex in St. Inigoes. In 1981 and 1982, Dennis J. Pogue undertook a survey of portions of PAX River; one of the sites he identified was Mattapany, the dwelling plantation of Charles Calvert, the third Lord Baltimore. Mattapany (18ST390) has been placed on the National Register of Historic Places (Pogue 1983; Pogue 1987; Chaney and King

1999). A number of other surveys have been conducted by archaeologists from the Jefferson Patterson Park and Museum, including areas along Harper and Goose creeks, Mattapany, and the entire Webster Field Annex (King 1985; Galke and Kell 2000; Galke and Loney 2000; Sperling 2000). All of these projects have contributed significantly to the understanding of human settlement in St. Mary's County.

Beginning in 2011, St. Mary's College of Maryland (SMCM) has undertaken surveys along the Wicomico and on the now state-owned Newtowne Manor property. In 2011, SMCM surveyed a portion of the property known as Notley Hall, providing more precise temporal and chronological boundaries for the sites located just south of Manahowick's Creek (Bauer, King, and Strickland 2013). In 2014, with funding support from the Maryland Historical Trust, SMCM surveyed a portion of the Indiantown Farm property along Chaptico Bay, relocating two sites previously identified by Wilke and Thompson (1977) and identifying these settlements as a mid- to late 17th-century Indian town (King, Trussell, and Strickland 2014). A survey is now underway at Newtowne Neck State Park, a peninsula of land located between Breton and St. Clement's bays. The extent of Phase I surveys within the county are depicted in Figure 3.

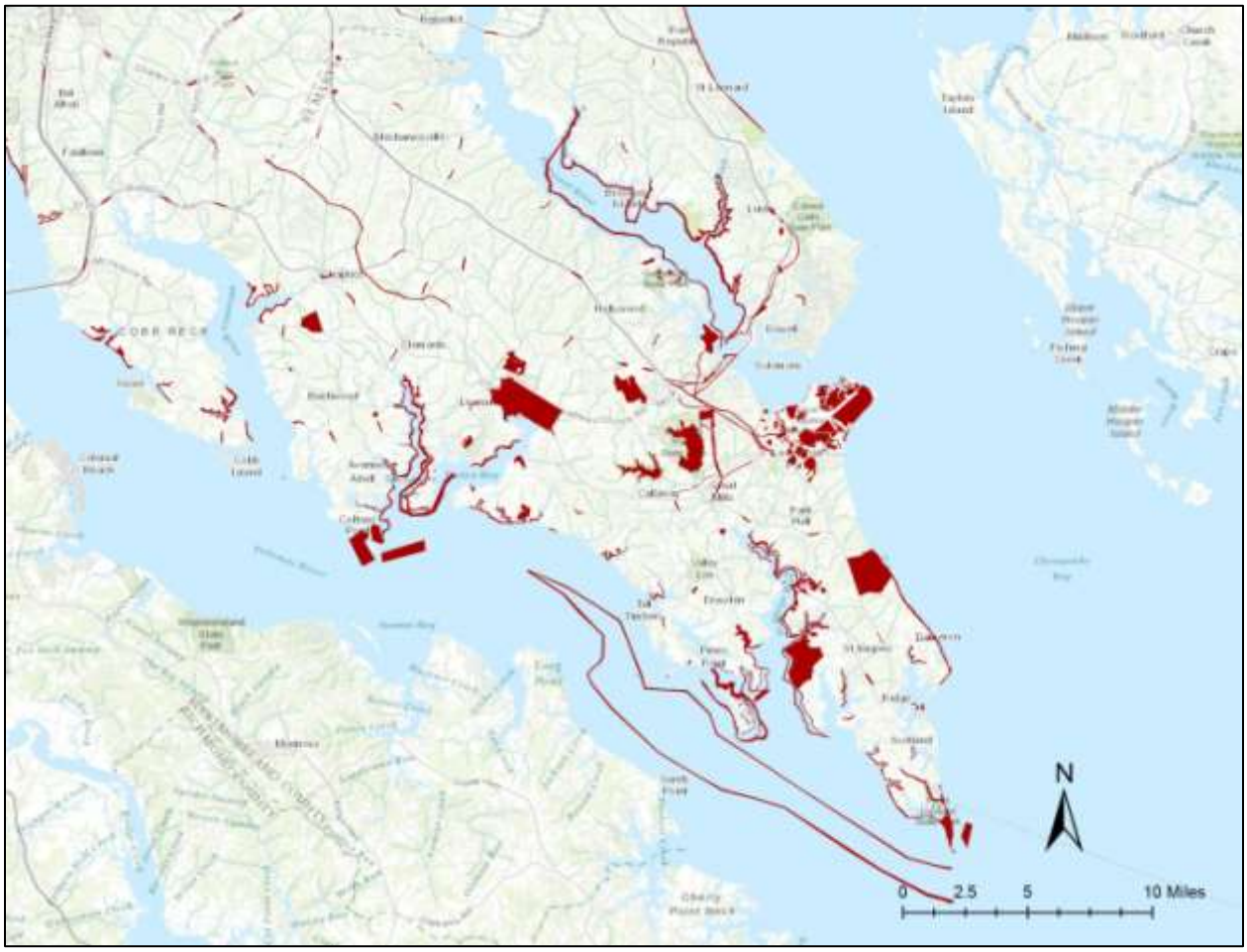

Figure 3. Map of Phase I survey areas (red).

An examination of Maryland Historical Trust site database files was performed to determine the quality of survey work employed at each site. Of the 939 sites within the database, over a third (n=358) of all sites that are recorded have had only non-systematic surface searches. Nearly 11% of sites (n=103) are identified as having systematic surface searches. Four sites are known to have both systematic and non-

systematic surface surveys employed. Nearly half of all sites recorded have been investigated by surface surveys alone.

Systematic shovel testing has been performed on a total of 340 sites. Of these systematic shovel test surveys, 67 have also had more intensive sampling through excavation units. Of those 67, seven sites included mechanical excavation. In total excavation units have been performed on 111 sites, with and without the benefit of other survey methods. Mechanical excavation has been performed on a total of 21 sites. Of these 21 sites, only 2 sites list having been investigated solely through mechanical excavation.

To investigate the overall coverage of survey within the county, Phase I survey and site location data was split arbitrarily by zip code to determine where areas of little survey has been conducted (Table 3). The total land area of each zip code was compared to the total land area surveyed to compare proportions across zip code locations. Zip code spatial data was take from 2010 Maryland Department of Planning datasets. It should be of note that zip code 20653 for Lexington Park also includes St. Mary's City (20686), which is not shown as a separate entity. This has the effect of under-representing the amount of survey done over that specific area, while over-representing the amount of survey in Lexington Park proper. It should be noted that Phase I survey area information is not complete, so overall site density per acre of land area in each zip code was tabulated.

Zip	Name	Sites	Sites/100 acres	Percent Phase I
20670	Patuxent River	130	1.969	57.78%
20684	Saint Inigoes	99	1.888	37.99%
20634	Great Mills	15	0.320	21.15%
20619	California	58	0.531	17.68%
20687	Scotland	25	0.589	15.14%
20650	Leonardtown	157	0.399	9.53%
20653	Lexington Park	134	0.619	9.40%
20674	Piney Point	3	0.343	6.39%
20621	Chaptico	19	0.206	5.02%
20667	Park Hall	20	1.945	3.94%
20628	Dameron	19	0.428	3.50%
20626	Coltons Point	1	0.105	2.48%
20609	Avenue	8	0.129	2.17%
20680	Ridge	9	0.215	1.85%
20690	Tall Timbers	4	0.259	1.77%
20606	Abell	0	0.000	1.73%
20620	Callaway	1	0.041	1.45%
20630	Drayden	22	0.462	1.34%
20636	Hollywood	16	0.077	1.16%
20618	Bushwood	3	0.055	1.07%
20659	Mechanicsville	78	0.127	1.02%
20624	Clements	7	0.110	0.96%
20692	Valley Lee	13	0.273	0.70%
20622	Charlotte Hall	2	0.052	0.51%
20656	Loveville	0	0.000	0%

Table 3. Survey coverage by zip code.

The number of recorded sites within each zip code was tabulated as well. Areas with the greatest amount of survey include Patuxent River Naval Air Station, St. Inigoes, Great Mills, California, Scotland, Leonardtown, and Lexington Park. The site density per overall land area (surveyed and unsurveyed) is another indicator of coverage where Phase I survey location area data is lacking. The greatest density comes unsurprisingly from the Patuxent River Naval Air Station, where at least 57.78% of the land has been surveyed, indicating a density of nearly two sites per 100 acres. A similar density is seen in St. Inigoes, which has at least 37.99% Phase I survey coverage and 1.88 sites per 100 acres. Areas with the lowest density of recorded sites include Abell, Loveville, Callaway, Charlotte Hall, Bushwood, and Hollywood. Areas with fewer than 10 recorded sites include Abell, Loveville, Callaway, Coltons Point, Charlotte Hall, Bushwood, Piney Point, Tall Timbers, Clements, Avenue, and Ridge.

An examination of the Maryland Historical Trust's Archaeology Synthesis Project, a searchable database of Phase II and Phase III survey information, was undertaken to explore the extent of more intensive survey in the county (see Appendix III for summary table). A total of 74 Phase II and 24 Phase III surveys are currently recorded in St. Mary's County within the dataset. Of these 98 total surveys, 22 of them have been conducted at Historic St. Mary's City (HSMC) and St. Mary's College of Maryland (SMCM), one of which is a possible 17th-century shipwreck. An additional two sites located in St. Mary's City, though outside the purview of HSMC and SMCM have also been more intensively surveyed. A total of 15 of the sites subject to Phase II/III survey are located at the Webster Field Annex of the Patuxent River Naval Air Station in St. Inigoes. At the Patuxent River Naval Air Station itself, a total of 12 sites have undergone Phase II/III testing.

The remaining 49 Phase II/III surveys have been located in Bushwood (n=1), California (n=3), Callaway (n=4), Great Mills (n=2), Chaptico (n=3), Charlotte Hall (n=1), Compton (n=5), Drayden (n=1), Hollywood (n=1), Leonardtown (n=13), Lexington Park (n=1), Mechanicsville (n=3), Scotland/Point Lookout (n=3), and St. Clement's Island (n=1). Four shipwreck sites have had Phase II surveys conducted on them, all located in the Potomac River. A submerged wharf and shipwreck was also investigated at Grayson's Wharf in St. Inigoes, No Phase II or III surveys have taken place in Abell, Avenue, Clements, Colton's Point, Dameron, Loveville, Morganza, Park Hall, Piney Point, Ridge, Tall Timbers, or Valley Lee.

Phase III surveys (n=24), were overwhelmingly focused on historic period contexts. Nearly all of the sites are multi-component sites. Phase III surveys on sites with only prehistoric components are limited to four sites. These sites include Myrtle Point (18ST569), a multi-component prehistoric site dating to the Early and Late Archaic periods as well as from the Early Woodland to Late Woodland periods. The site consists of short-term camps or base camps. The Aud site (18ST634) consists of components dating from the Early Archaic through the Late Woodland period, consisting of short-term camps. The Thomas Point site (18ST570) is a shell midden site dating to the Late Archaic period as well as the Middle and Late Woodland periods. A Late Woodland/Contact-period palisaded site was investigated at St. Mary's College of Maryland on the site known as West's Field Cluster D (18ST1-29D).

Historic period 17th-century sites include St. Mary's Town Center (18ST1-13), St. Johns (18ST1-23), and Mattapany-Sewall (18ST390). St. Mary's Town Center at Historic St. Mary's City is alternatively known as both the Calvert House, and Country's House and lies at the central point within the early colonial capital's 17th-century town plan. This site includes the Leonard Calvert's house which served as the Maryland colony's first de facto State House and later served as an inn. The St. John's site is another early colonial site, home to John Lewger, the secretary of the colony. Mattapany-Sewall, located on the Patuxent River Naval Air Station was the home of Charles Calvert, the third Lord Baltimore. Calvert's home was one of the largest structures in Maryland during its occupation and also included a palisaded enclosure and magazine for the colonial militia.

Other 17th-century sites that also date into the early and mid 18th-century include the Brick Chapel at St. Mary's (18ST1-103), Abell's Wharf (18ST53), and Ocean Hall (18ST71). The Abell's Wharf site is a multi-component site along Breton Bay in Leonardtown and was slated for gravel mining in the 1970s. It has since been protected and leased to the St. Clement's Island and Potomac River museum for 189 years. Phase III excavations began in 1975 to identify and locate the extents of any sites of significance. The work done at this site has located Early to Late Archaic short-term camps as well as an Early to Late Woodland shell midden. The late 17th to mid 18th-century component of the site is an unidentified farmstead. The Ocean Hall site was investigated ahead of a planned addition to the existing early 18th-century house. Excavations revealed an Archaic and Woodland shell midden and possible Late Woodland village site. Mid 17th to early 18th century artifacts and features were also uncovered.

Phase III excavations of majority 18th-century component sites includes the John Hicks site (18ST1-22), West's Fields Cluster C (18ST1-29C), Newtown (18ST16), Upper Notley (18ST75), and Chapel (18ST330). The John Hicks site Phase III excavations were completed ahead of a planned student center at St. Mary's College of Maryland along the periphery of the recorded mid 18th-century plantation occupation of John Hicks. The West's Field Cluster C was excavated as part of a larger mitigation plan for St. Mary's College of Maryland. Excavations here revealed two post holes – remnants of an unknown 18th-century occupation. Excavations at Newtown were associated with locating accessory structures and outbuildings of the 18th-century Jesuit manor house and church. Excavations at Upper Notley took place during a salvage archaeology project ahead of the planned expansion to an existing mid to late 18th-century house. The Chapel site, located in the *Old Chapel Field* at the Webster Field Annex of the Patuxent River Naval Air Station was excavated to locate and document structures associated with the Jesuit occupation of the property. Phase I/II testing of this area was conducted ahead of the installation of utility lines.

Phase III excavations of sites dating from the 18th-century and into the 19th-century include West's Field Cluster A (18ST1-29A), Sotterley Plantation (18ST54), the M-17 (22) Area 3 site (18ST271), the Susquehanna site (18ST399), St. Joseph's Manor (18ST550), and the Charlotte Hall Academy (18ST400). West's Field Cluster A, like the West's Field Cluster C site was excavated as part of a larger St. Mary's College of Maryland mitigation strategy. This site in particular is the location of a slave or tenant's quarters. The Sotterley Plantation site is located at the former plantation and existing house of the same name, which includes many still standing structures, including a slave quarter. The M-17 (22) Area 3 site was excavated ahead of disturbance from the St. Clements Wastewater Treatment facility and consists of a late 18th to early 19th-century farmstead. St. Joseph's Manor, located in the Town Creek neighborhood of Lexington Park, is an 18th and 19th-century occupation first discovered in 1975 when a water pipe trench was being placed along with driveway grading. These utility upgrades revealed a brick chimney and partial foundation. Further site testing came 10 years later through mechanical stripping and hand excavation of features under driveway fill. The Charlotte Hall Academy is a former military academy established in the Late 18th-century. Phase II and Phase III work was conducted here ahead of the proposed demolition of a 1960 dormitory building. Testing also took place at the site of a new proposed entrance, the ruins of an 1897 classroom building, and around a circa 1803 building know as the White House. Testing revealed the presence of several buildings associated with the earliest phases of the academy.

Two majority 19th-century sites underwent Phase III excavation. These include the Point Lookout Lighthouse/Hospital (18ST61) and the Stokes site (18ST318). The Point Lookout Lighthouse was built in 1830 and is currently maintained by the U.S. Navy. The Point Lookout hospital was built during the Civil War and is associated with the Union occupation and camp for Confederate prisoners. Phase I/II testing at the site began in 1995 ahead of the construction of three permanent theodolite stations. Where concentrations of brick were found, larger units were opened revealing features and structures associated with the lighthouse, as well as remnants of the hospital – much of which has since eroded. The Stokes site is a mid to late 19th-century log tenant house ruin of possible African-American occupation. Phase III excavations were conducted by a student from St. Mary's College of Maryland under the supervision of staff from the Southern Maryland Regional Preservation Center, St. Mary's City Commission in 1981/1982 to make an assessment of the structural remains of the ruin.

Chapter 6.
Site Inventory

At the beginning of this project, in January 2015, there were a total of 909 archaeological sites in St. Mary's County, Maryland recorded in the Maryland Historical Trust (MHT) site files. These sites range in date from the Paleo-Indian period through the 20th-century. The number of sites that fall under generally recognized chronological periods used by archaeologists are summarized in Table 4. The number of sites in this table exceed 909 (N=1,063) because a number of the sites include more than one period of occupation.

Period	Sites
Paleo *(10000 - 7500 BC)*	3
Early Archaic *(7500 - 6000 BC)*	25
Middle Archaic *(6000 - 3500 BC)*	28
Late Archaic *(3500 - 1000 BC)*	111
Early Woodland *(1000 BC - 200 AD)*	106
Middle Woodland *(200 AD - 900 AD)*	76
Late Woodland *(900 AD - 1600 AD)*	147
Contact *(Post-1600 AD)*	8
17th Century	75
18th Century	191
19th Century	293

Table 4. Inventory of identifiable chronological site components.

As a cautionary note, it is important to point out the limitations of the spatial data as it pertains to evaluating settlement patterning throughout all periods of occupation. The assumptions made in this chapter partially rely on the visual interpretation of site distributions. Site distributions are limited to areas where researchers have actively looked for sites, which may have the tendency to exclude certain areas that have simply been written off. Another potential problem to note is the relatively uneven survey coverage throughout the county. As discussed in the previous chapter, much survey work has been conducted as per requirements of Section 106 of the National Historic Preservation Act of 1966 – ultimately confining survey data in some places to particular properties.

Further interpretation of the spatial data is recommended through correlative statistics, as will be discussed in the concluding chapter of this report. The following discussion of recorded sites and their distributions were made keeping in mind the potential bias of the spatial data available while also making reference to other scholarly interpretations of settlement.

Of the three recorded Paleo-Indian sites, only one, 18ST540, located near Deep Creek along the Chesapeake Bay in Scotland is recorded as having a definite Paleo component. The other two sites, 18ST37 and 18ST660, both located east of Breton Bay, are listed as "possible" Paleo-Indian sites. For example, site 18ST37 was defined in part based on reports of people finding and collecting fluted projectile points. A single chert clovis point was recovered from the 18ST660 site by the landowner and identified by Julia King and Ed Chaney of Jefferson Patterson Park and Museum in 1994. The overall absence of Paleo-Indian sites in the region may indicate that many of these sites are now inundated, flooded as the waters of the Chesapeake Bay rose. It is also the case that Paleo-Indian sites can be difficult to identify, the result of what Dent (1995) describes as predominantly surface sites with informal hearths, reflecting the highly mobile nature of Paleo-Indian lifeways. Dent's (1995) mapping of the distribution of Paleo-Indian points further indicates the relative paucity of sites of this time period in the Maryland and Virginia Chesapeake Tidewater -- most sites are located below the Nottoway River in Virginia or north of Anne Arundel County, Maryland.

As temperatures began to warm in the early Holocene, presumably accompanied by a growing variety of resources attractive to humans, the increase in number of sites in the Early Archaic probably reflects a growing number of inhabitants in the region. Early and Middle Archaic sites are equal in number, an unusual observation given that, in many other areas of the Chesapeake, Early and Late Archaic sites outnumber those from the Middle Archaic. This observation has led some archaeologists to suggest a regional depopulation during the Middle Archaic while others suggest that the problem rests with the ability of archaeologists to recognize sites from the Middle Archaic (Dent 1995). The jump in the number of sites from the Early and Middle Archaic to the Late Archaic probably reflects continued warming temperatures and the growing richness of environmental resources, including the development of oyster habitat, a resource critical to Woodland-period peoples.

Figures 4-6 show the distribution of known Archaic period sites within the county. Early and Middle Archaic sites (Figures 4 & 5) are located in diverse landscapes such as along the coasts of large water-bodies such as the St. Mary's River and further inland along tributary creeks and streams. Only two sites have been recorded directly along the shores of the Potomac during the Early Archaic period. This suggests that subsistence was not dependent on aquatic resources such as shellfish. This appears to shift somewhat during the Middle Archaic period, where more sites have been located along main waterways than during the Early Archaic. This is particularly evident along the St. Mary's River and Breton Bay

Figure 4. Early Archaic-period site locations.

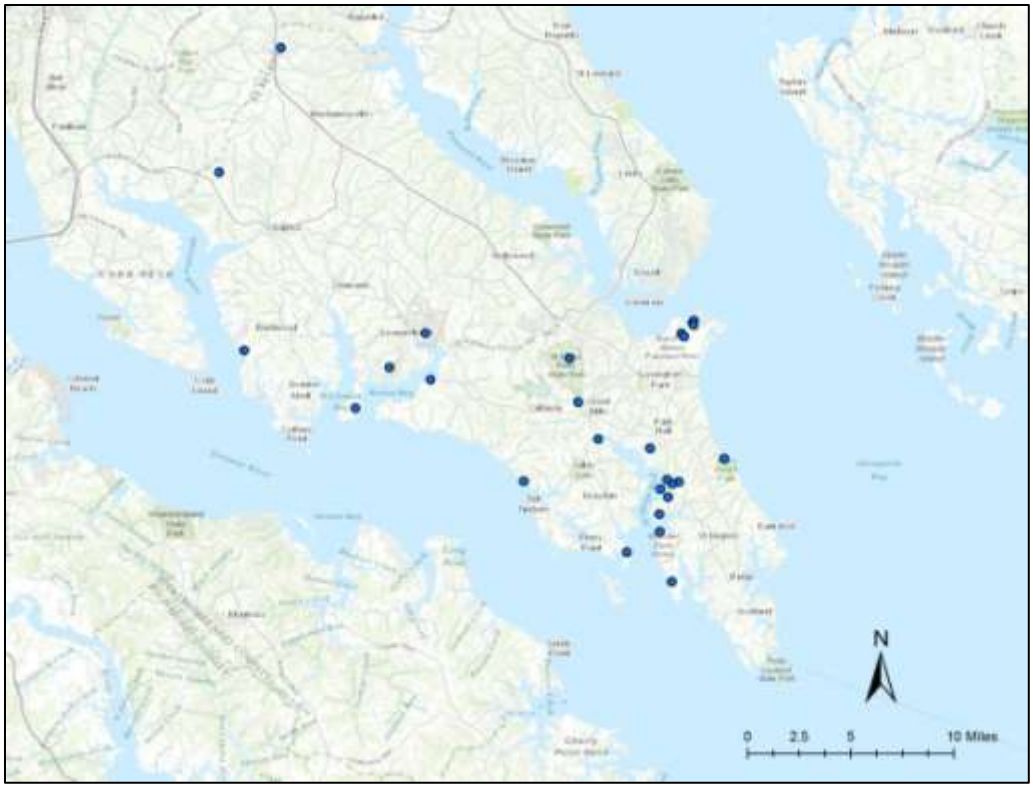

Figure 5. Middle Archaic-period site locations.

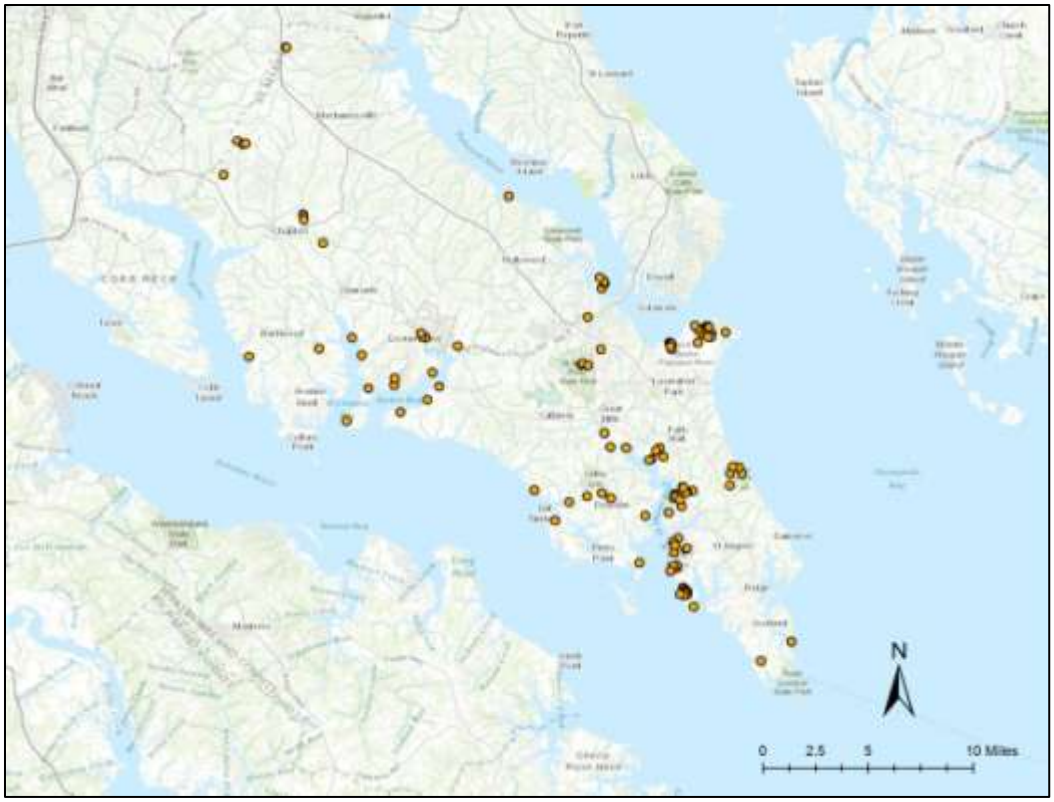

Figure 6. Late Archaic-period site locations.

By the Late Archaic-period, there appears to be a shift towards the coastal areas and away from inland creeks and streams. The range of landscapes where Late Archaic-period sites are found appears to be more restricted to coastal areas than inland waterways. During this period it has been noted that the overall territorial range of people began to decrease with the establishment of more permanent habitation (Wanser 1982:93). A relatively large number of sites are recorded tidal waterways such as the St. Mary's River, Breton Bay, and St. Clement's Bay. Unlike the Zekiah Swamp in Charles County, which saw an increase of population during the Late Archaic period (Wanser 1982:129), there appears to be a shift towards more estuarine environments in St. Mary's County. This may be indicative of a shift in subsistence strategy, with increased consumption of fish, shellfish, and waterfowl. Relatively few Late Archaic period sites are found directly along the shores of the Potomac and Patuxent Rivers, as well as the Chesapeake Bay.

This trend continues throughout the Woodland period (Figures 7-9). A gradual shift is seen towards coastal areas of the Potomac and Patuxent Rivers. By the Middle Woodland-period, very few sites are found further inland. Most sites are found along low-lying coastal waterways, extending inland only slightly beyond the freshes of the largest rivers. Seasonal hunting base camps were located further in the interior to exploit resources such as deer. The Woodland-period saw a rise in agricultural subsistence. Low-lying coastal areas are the veritable breadbasket of St. Mary's County, with the most agriculturally productive soils (Figure 10). There is a curiously low number of Middle Woodland period sites recorded

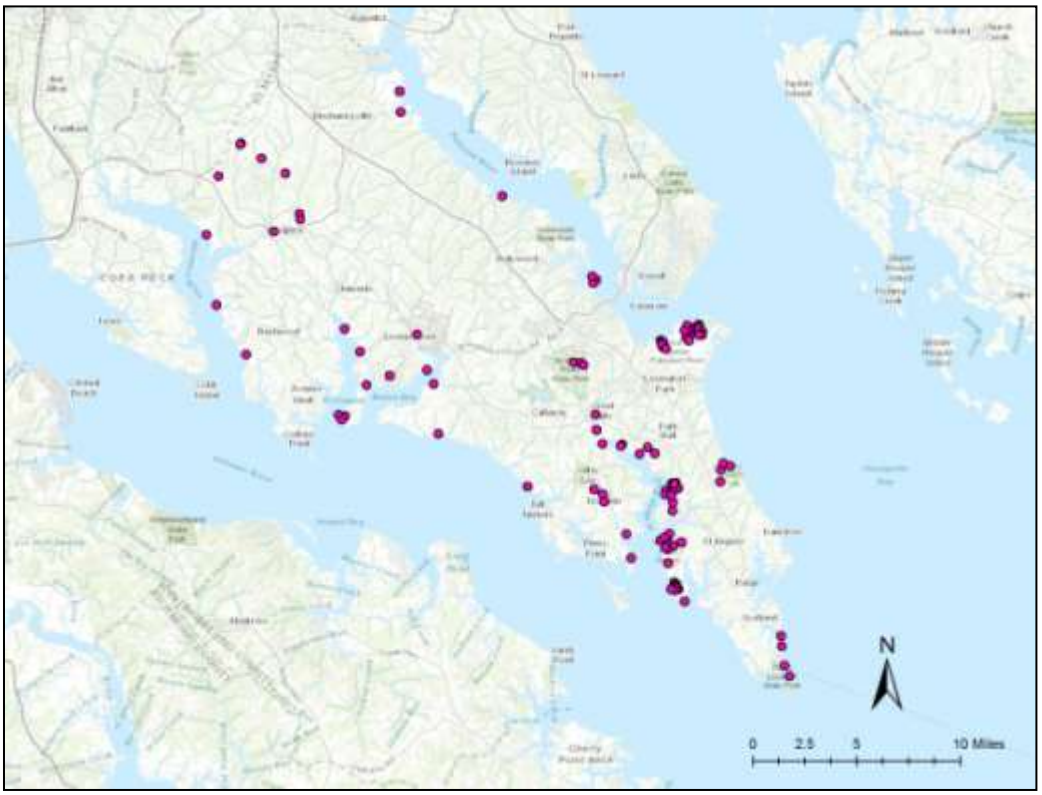

Figure 7. Early Woodland-period site locations.

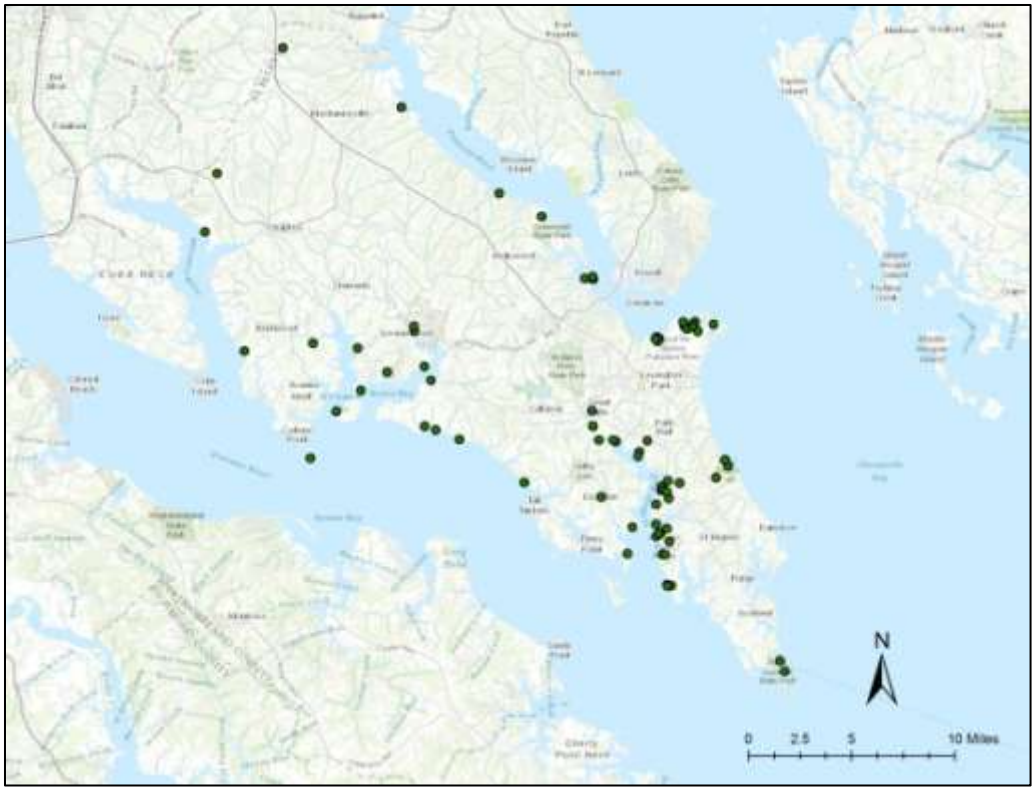

Figure 8. Middle Woodland-period site locations.

Figure 9. Late Woodland-period site locations.

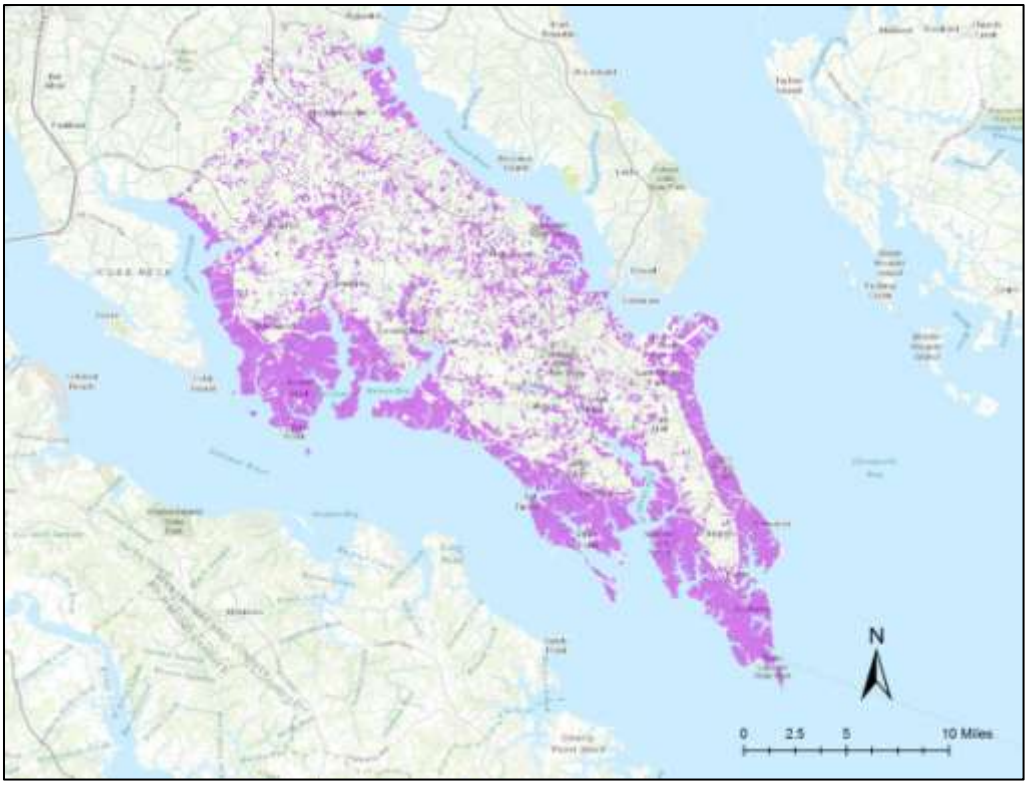

Figure 10. Agriculturally productive soils of potential over 100 bushels/acre of corn, non-irrigated.

in the county when compared to the Early Woodland period preceding it, and the Late Woodland period following thereafter. Middle Woodland sites are recorded at nearly half the frequency of Late Woodland sites. This discrepancy may be explained by the manner in which sites have been identified and recorded in the past. Re-examination of collections from sites with unidentified prehistoric or unidentified Woodland-period components (Chapter 8 of this report) revealed that 7 out of 29 sites analyzed had Middle Woodland-period diagnostic artifacts.

As larger, more centralized, and sedentary settlements were established throughout the Late Woodland, the more necessary it was to be able to produce surpluses of food to feed the growing population. Indeed, a large number (N=147) of sites are dated to the Late Woodland, suggesting the rich resources available in the county to Native people and their communities. Their distributions are found throughout all coastal areas within the county, and are recorded less frequently in the higher interior portions of the county.

Individual site typologies recorded among prehistoric sites include villages, hamlets, base camps, short-term resource procurement sites, quarries, shell middens and lithic scatters (Table 5). Lithic scatters and shell middens make up a large portion of the prehistoric components of recorded sites. These typologies are among the two least descriptive. Lithic scatters and shell middens are more descriptive of the extent to which sites were recorded rather than being descriptive of the use of the site itself. Sites such as 18ST153 was initially recorded as an unidentified prehistoric shell midden through a non-systematic surface survey of the site. A Phase I shovel test survey revealed that in addition to containing a shell midden, the site was primarily the location of a Late Woodland village (King, Trussell, and Strickland 2014). Village sites are the least frequently identified prehistoric site type. This is likely a product of both misidentification, as typified in the case of 18ST153, and the role of villages as larger and more heavily populated sites. All village sites recorded date to the Late Woodland period (18ST1, 18ST1-13, 18ST1-

115, 18ST1-265, 18ST1-267, 18ST17, 18ST71, and 18ST74), though several contain Middle Woodland components.

Only eight sites are reported as being "contact period" sites; by "contact," MHT refers to sites occupied in the historic period by Native American households and communities. The count would probably be higher if later Late Woodland sites occupied at the time of early English colonization were recorded; the challenge is recognizing Late Woodland sites that were occupied into the early or mid-17th century. Archaeologist Norma Baumgartner-Wagner (1979:52-58) has also suggested that post-Contact Native sites in Maryland are difficult to identify in the archaeological record because of their dispersed, low density character. More specifically, Baumgartner-Wagner (1979:54) suggested that post-Contact Native sites have not been found because "we [have not been] looking for the correct artifact assemblages." Archaeological investigations at the Posey site, located along Mattawoman Creek in Charles County, provided an opportunity to evaluate Baumgartner-Wagner's observations. The Posey site, which was occupied from c. 1660 until 1685, is characterized by thousands of artifacts, suggesting that at least some post-Contact Native sites have left a rich, definitive archaeological signature. But the Posey site, which contains European materials, was initially misidentified as an early 17th-century site, in large part because the European materials were not more precisely identified (Potter 1993:205-206). A reevaluation of the Posey site material revealed two things: that the comparatively few European artifacts recovered from the site dated no earlier than the second half of the 17th century and that at least some post-Contact Native sites would be characterized by a preponderance of Potomac Creek ceramics.

Site Component	Count
Village	8
Hamlet	15
Base Camp	27
Short-Term Resource Procurement	228
Quarry	17
Shell Midden	166
Lithic Scatter	272

Table 5. Prehistoric site typologies.

It is also the case that Native settlement at the time of contact was not evenly distributed across southern Maryland but concentrated along selected rivers and creeks, especially Nanjemoy, Mattawoman, and Piscataway creeks. Lord Baltimore's colonists encountered Yaocomico Indians on the St. Mary's River in 1634, and these Indians were glad to welcome the colonists as a buffer between them and northern Indian groups, particularly the Susquehannock, who often made predatory raids into the Potomac drainage. Merrell (1979) has suggested that the colonists and the Piscataway maintained generally good diplomatic relations because members of both nations generally stayed out the other's territory. The historical evidence suggests, then, that more "contact-period" sites should be located in Charles and Prince George's counties than in St. Mary's.

St. Mary's County probably has the largest concentration of 17th-century European sites in the state. Seventy-five 17th-century European sites have been found in the county. Three, including St. Mary's City (18ST1), Old Chapel Field (18ST330), and Clifton (18ST794), predate 1650 and constitute the earliest colonial sites anywhere in the state.

As expected, the number of historic period sites dating to the 17th-century and on increase moving forward through time as permanent European settlements are established and population rises. The distribution of known 17th-century sites (Figure 11), is restricted primarily to the agriculturally rich and desirable coastal area. Settlement was sparse during the early years of colonial settlement, with no well established towns or ports, despite several acts towards that end.

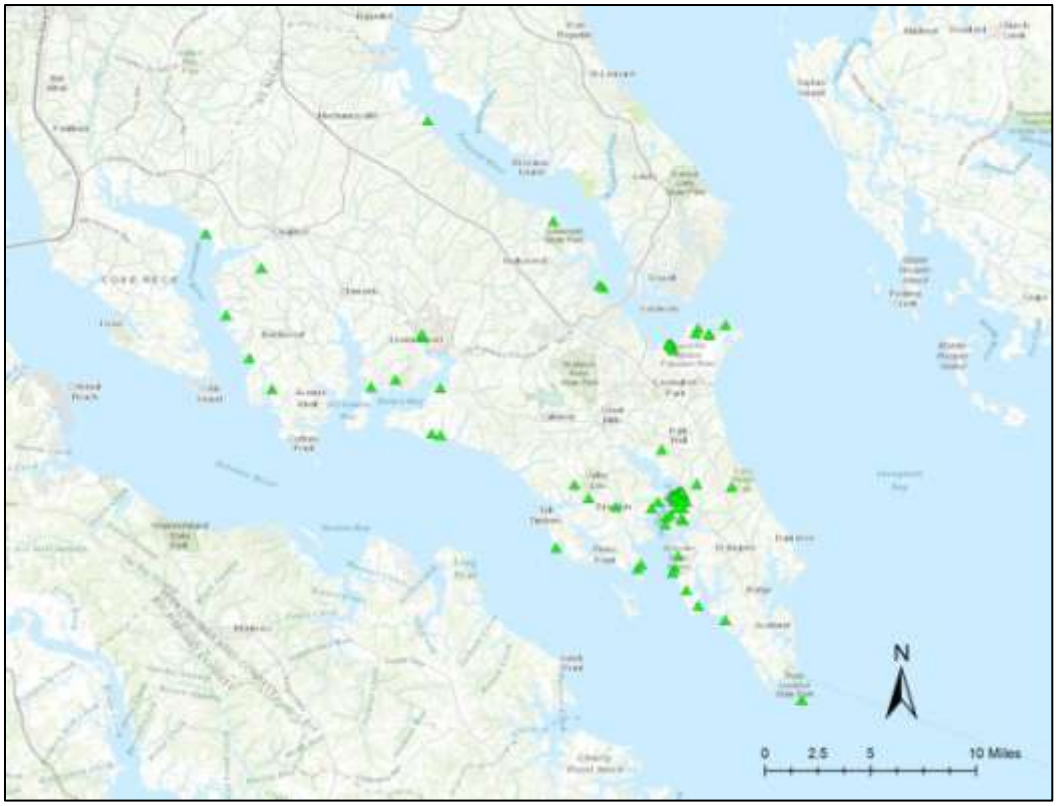

Figure 11. 17th-century site locations.

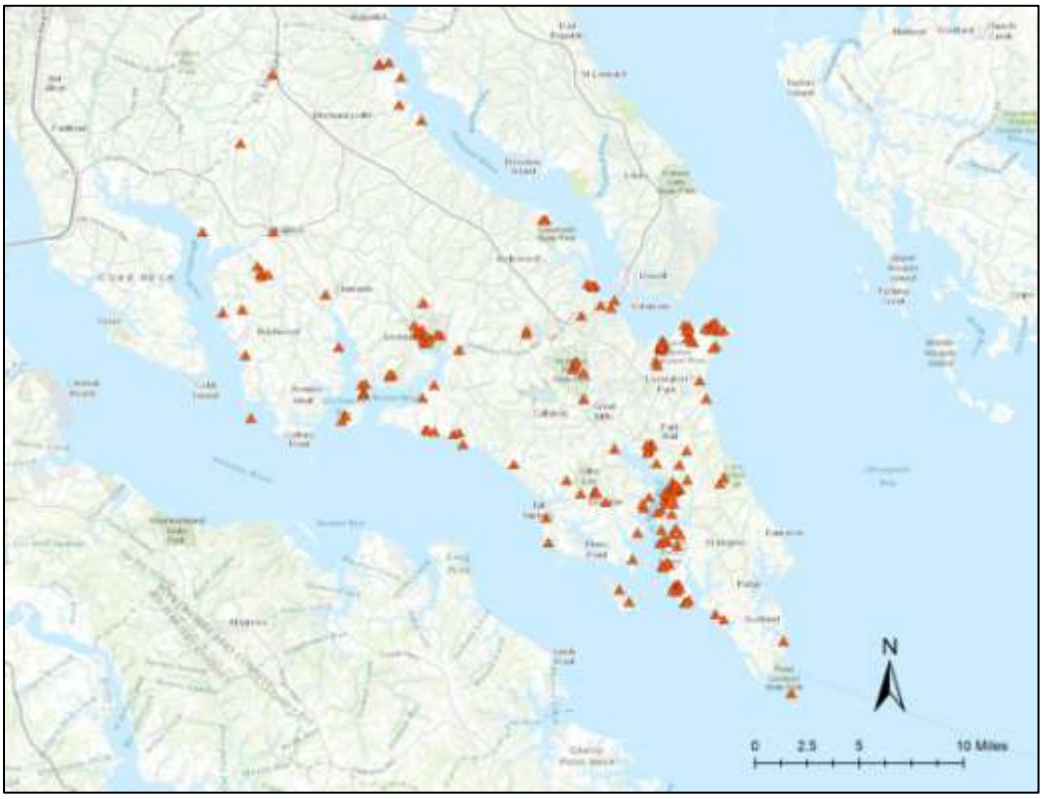

Figure 12. 18th-century site locations.

By the 18th-century, much of the best and most profitable land along the coast had been taken up. As a result, settlers began moving further inland where land was still available. The distribution of 18th-century sites (Figure 12) indicates that while the coastal areas were still the main areas of habitation, the inland areas too were being more intensely settled. This trend continued into the 19th- and early 20th-centuries. Inland settlement was aided by the establishment of roads and later railways, with less reliance on travel by boat on rivers as the main mode of transportation throughout southern Maryland.

Historic-period sites, as recorded with the Maryland Historical Trust consist of domestic, industrial, transportation, military, sepulchre/cemetery, religious, commercial, education, and non-domestic agricultural sites (Table 6). Domestic sites, the most numerous of all site types, include plantations, tenant farmer, and other dwelling sites.

Site Component	Count
Domestic	365
Industrial	17
Transportation	53
Military	13
Sepulchre/Cemetery	21
Religious	9
Commercial	6
Education	2
Non-Domestic Agriculture	13

Table 6. Historic site typologies.

There is considerable overlap between industrial, transportation, and commercial sites recorded. Industrial sites include oyster packing plants, wharves, railroads, mills, and brick clamps. Transportation sites include remnants of colonial roads such as the Mattapany path (18ST85) and rolling roads (18ST770), lighthouse sites, wharves, Civil War coaling stations (18ST574), wharves, landings, railroads, and shipwrecks. Military sites include Civil War related sites at Point Lookout such as a Fort Lincoln (18ST57), camps (18ST59), a hospital (18ST61), and shipwrecks. More modern military sites recorded include World War I debris field (unknown function, 18ST812), and sunken World War II shipwrecks. Commercial sites include 17th-century taverns (18ST1-19 & 18ST1-145), whole communities (18ST470), the town center of St. Mary's City (18ST1-13) 19th-century hotels (18ST59), and 20th-century fishing shacks (18ST529).

Overlap in the recordation of site typologies exists between sepulchre/cemetery sites and religious sites. All burial sites associated with a church (18ST1-103, 18ST16, 18ST398, 18ST618, & 18ST859) are classified as both sepulchre/cemetery sites and religious sites. Other burial sites include cemeteries of families and the enslaved. Other religious sites include church sites with no known associated burials.

Education sites include the Charlotte Hall Military Academy (18ST400), first established during the late 18th-century, and a single late 19th- early 20th-century schoolhouse lot (18ST155).

Non-domestic agricultural sites include livestock stream crossings (18ST563), barns, stables, and other farm related structures dating throughout the historic period from the 17th-century and into the 20th-century.

Chapter 7.
Methodology

As part of this project we were to assess the condition and accuracy of recorded archaeological sites within St. Mary's County and to identify what threats pose the greatest risk to these sites. Due to the high number of sites and a limited timeframe, a series of analyses using data layers within a Geographic Information Systems (GIS) database was undertaken. By reviewing site condition through data themes such as high resolution aerial orthography, land use, and impervious surface data, the extent of disturbance to a site could be more easily assessed.

In addition to assessment of site condition, the accuracy of site recordation was also undertaken. Chiefly among this task was the identification of occupational periods recorded as unknown. This was completed by re-examining collections curated at the Maryland Archaeological Conservation Laboratory for any unrecorded diagnostic materials.

Fieldwork was also conducted in areas where little archaeological survey has taken place in order to demonstrate the area's archaeological potential. Areas near the water were targeted as a priority as will be discussed further in this chapter.

GIS Methodology

Site spatial data, provided by the Maryland Historical Trust (MHT), was analyzed using ESRI ArcGIS software. Data provided by MHT included archaeological site polygon shapefiles and polygon shapefiles for most Phase I survey areas. Each set of shapefiles included a Microsoft Access database file with additional information take from site recordation forms previously submitted to MHT. This additional data elaborates details found within each associated shapefile's attribute data. These shapefiles and databases proved crucial to interpreting sites in relation to chronology, environment, and climatology.

There are limitations to the shapefile data for sites. While site boundaries may be shown generally close to their actual location, there may exist errors that stem from the relative inaccuracy of the quadrangle maps on which they were originally mapped. Quadrangle maps follow the United States National Map Accuracy Standards, which applies to all mapping products made between all Federal agencies. The standards dictate that 90% of points used to generate maps must be accurate within 1/50th of an inch at map scale. The 7.5 minute quadrangle maps most commonly used are set at a scale of 1:24,000. At this scale, the standards of accuracy are to be +/- 40 feet (USGS 1999). In archaeological contexts, especially for small sites, this range of accuracy has the potential to skew results when using GIS to measure impacts. For instance, a small site located 20 feet off of the shore could be digitized from a quadrangle map and be shown to be partially in the water when overlaid onto aerial imagery.

Checking the spatial accuracy of all recorded sites in the county would be a large undertaking, well beyond the scope of work of this project. In light of these potential pitfalls, the site spatial data was analyzed against a number of different variables in order to measure the current status of any disturbance and predict future impacts to site integrity. This included high resolution aerial orthography, land use, impervious surface, sea-level rise predictions, erosion rates, and protected land areas.

The first data theme analyzed included high resolution aerial orthographic photos, originally taken in 2007 and made available by the Department of Land Use and Growth Management. Data came in the form of raster MrSID (multiresolution seamless image database – file extension *.sid*) data broken into three parts (North, Center, South). Though not the most recent orthographic aerial images, they are of the

highest resolution and the easiest to store, manage, and interpret. The following methods in interpreting the aerial imagery in this section is not without its problems. These methods are not true statistical assessments and should not be considered as part of any regulatory framework, but should only be used as a way to quickly gather information about general impacts to sites. Interpreting via aerial imagery is not a substitute for field checks, but serves to narrow down any sites of questionable preservation to be scrutinized further.

Each site polygon was given a score based upon a visual ranking of impacts within the site's boundaries. Different landscape features and types were given a numerical value to determine which sites have been impacted the most. The guide to the scores is shown in Table 7.

Initial scores were assigned based on relative and generalized levels of disturbance. A disturbance score of 0 represents areas in which damage caused by development and erosion have not taken place. Areas with a disturbance score of 1 are those that have been disturbed by human activity, but to a minimal degree. This includes cemeteries, where disturbance is somewhat limited in scope. Reconstructions at Historic St. Mary's City are included within this score because, while they have been disturbed by large scale excavation, standard practices were taken in order to properly document the sites. A disturbance score of 2 represents area where minor grading and wetland encroachment have taken place. This includes the construction of farm roads and gravel parking, where grading might have occurred. A score of 3 denotes areas where more intense, but localized, grading has occurred. This is particularly in regards to single family home development. A score of 4 represents areas in which grading and wetland encroachment and erosion has taken place over a majority of a site area. A score of 6 was assigned to areas that are completely developed in order to allow sites recorded within these areas to stand out as likely being completely lost.

Disturbance Score	Landscape Feature/Type
0	Wooded
	Open Field/Agriculture
	Overgrown/Brush
	Currently standing/ruin
1	Cemetery
	Reconstruction (Historic St. Mary's City only)
	Garden
	Overhead Utility
	Deforested
2	Gravel Parking
	Farm Road
	Marsh
3	Partially Developed/Relocated dwelling
	Moderate Grading
	Paved
4	Heavy Grading
	Developed
	Submerged
	Eroded
	Storm Water Pond
	Pier/Dock/Boardwalk
6	Completely Developed

Table 7. Landscape feature disturbance score guide.

Any and all landscape features/types observed within defined site boundaries were individually noted and attributed to all 909 site polygons in order from the most prevalent feature to least prevalent feature. At most a site would contain a total of four distinct landscape features. Because landscape features were attributed to each site in rank order (i.e., most to least prevalent), their Disturbance scores were adjusted in kind (see Table 8 for example). The cumulative score for each ranked value would then be taken. The most prevalent landscape features were given the initial disturbance score shown in Table 5, while the second most prevalent would have the score adjust to 0.75 times its value. Likewise, the third

most prevalent landscape feature disturbance score would be adjust to 0.5 times its value, and the fourth most adjusted by a factor of 0.25. This was done to make a more accurate determination of site condition from qualitative data observations performed visually.

Site #	Aerial Observations	*Rank 1*	Rank 2	Rank 3	Rank 4	*Adj. Rank 2*	*Adj, Rank 3*	*Adj. Rank 4*	Final Score
18ST100	*Developed, Open Field, Partially Eroded*	***4***	0	4		***0***	***2***	***0***	**6**

Table 8. Example disturbance score adjustment.

The final score for each site fell into a range varying between 0 (completely undisturbed) to 7 (very heavily disturbed/lost). The classification of each score is shown in Table 9.

Additional information provided by the St. Mary's County Department of Land Use and Growth Management included impervious surface data derived from aerial photos. Areas of impervious surface, such as roads, houses, and pavement indicate areas on archaeological sites that are likely completely or substantially destroyed due to their construction. This data allowed for a quantitative value of a single type of disturbance to be attributed to each site boundary.

Score Range	Condition Classification
0 - 1.75	Undisturbed/Mostly undisturbed
1.75 - 3.5	Minor disturbance
3.5 - 5.25	Moderate disturbance
5.25 - 7.0	Heavy disturbance/Lost

Table 9. Final disturbance score classification.

Data came in the form of polygon shapefiles according to type of impervious surface (airstrips, bridges, buildings, driveways, parking lots, roads, and sidewalks). In order to find the percent of each site affected by impervious surface construction quickly, the impervious surface and archaeological site shapefiles were converted into raster files to perform raster analysis through zonal statistics. Each site as a raster was given a unique value based on the site number. Likewise, all impervious surface areas were given a value of 1 and all pervious surfaces given a value of 0.

Zonal statistics calculates the raster values within designated raster zones. Archaeological site boundaries defined by their site numbers represent different zones. The impervious surface value raster (with values between 0 and 1) serves as the variable to examine within each zone. By applying binary values for areas of pervious and impervious surface, the mean of these values within a zone/site will give you the percentage of a site that is impacted by impervious surface area.

Zonal statistics calculations were again applied to areas of protected land, to determine which sites might be in areas where little future impact due to development is expected. Protected lands include Rural Legacy properties, private conservation easements, forest conservation easements, Federally-owned land, county-owned lands, Maryland Environmental Trust easements, Department of Natural Resources land and conservation easements, and agricultural land preservation easements. Data was acquired from the Maryland Department of Natural Resources in the form of polygon shapefiles for each protected land type. The polygons for each shapefile were merged into a single shapefile denoting total protected land area, which were then converted into a raster file for analysis. The same technique used to calculate impervious surface impact were used to define percent of site areas given protected status. In this case the binary values were assigned as 0 for unprotected land and 1 for protected land.

Land cover data for the county (from 2010) was acquired from the Coastal Change Analysis Program (C-CAP) of the National Oceanic and Atmospheric Administration. The data consisted of a single raster file with values representing land cover codes. These numeric value codes correspond to

different land cover types. There are a total of 24 different land cover classifications used by C-CAP, though not all are present within St. Mary's County (such as tundra or snow/ice). The land cover data was reclassified into three categories: Wet, Developed, and Good. The reclassification scheme is seen in Table 10.

Wet (Major Natural Disturbance)	Developed (Major Artificial Disturbance)	Good (Minimal Disturbance)
Palustrine Forested Wetland Palustrine Scrub/Shrub Wetland Palustrine Emergent Wetland Estuarine Forested Wetland Estuarine Scrub/Shrub Wetland Estuarine Emergent Wetland Unconsolidated Shore Water Palustrine Aquatic Bed Estuarine Aquatic Bed	Developed - High Intensity Developed - Medium Intensity Developed - Low Intensity	Developed - Open Space Cultivated Pasture/Hay Grassland Deciduous Forest Evergreen Forest Mixed Forest Scrub/Shrub Bare Land

Table 10. Reclassification scheme for NOAA/C-CAP land cover classifications.

Binary value classifications were applied for the three reclassified raster files seen in Table 10 (Wet: 1=wet, 0=not wet; Developed: 1=developed, 0=not developed; Good: 1=good, 0=not good). Zonal statistics were calculated for these variables.

Sea-level rise data was obtained from the Maryland Department of Natural Resources as raster image files. The data came in two sets, one showing a predicted rise of 0-2 feet and the other a 2-5 feet inundation. This is based on climate models and LiDAR- (light detection and ranging) derived elevation models developed by the Center for Geographic Information Sciences at Towson University and the Maryland Commission on Climate Change. The data already came in a raster format with binary values so no additional processing was necessary in order to compute the necessary zonal statistics for each site boundary.

Site Form/Collection Review Methodology

All zonal statistics data were brought into an Access database (hereafter referred to as the Site Impact Database) where analysis could begin. This database includes basic archaeological site data taken directly from the MHT site shapefile attribute table. In addition, site chronology data, Tax ID numbers and real property links were incorporated into the database. Tax ID numbers and real property hyperlinks were included for use in identifying current ownership of properties where recorded sites are located. A schema of the Site Impact Database design is shown in Figure 13. All spatial and tabular data used and created as part of this project was maintained and stored on a single-user computer used solely by the project archaeologist in order to protect sensitive site information. It is the intention of this project to transfer all data, including the Site Impact Database, directly to the Maryland Historical Trust. The Site Impact Database will also be transferred to the Historic Preservation Planner of the St. Mary's County Department of Land Use and Growth Management, with Tax ID and real property hyperlinks removed as per Maryland Historical Trust data licensing agreements. Pending any future hiring of a staff archaeologist at the county, the redacted information will be transferred over upon request.

The Site Impact Database became a tool for focusing efforts in the re-examination and re-analysis of collections and for narrowing down a list of at-risk/lost sites. It was decided that priority for re-analysis should be sites recorded prior to 1990 with unidentified chronological components. Excluded from the list were sites on US Navy property and property owned by Historic St. Mary's City. A total of 302 sites were

generated from the list (nearly a third of all sites recorded in the county). Of the 302 sites, only 73 had collections curated at the Maryland Archaeological Conservation Laboratory.

Artifact catalogs exist for some of the collections and report diagnostic materials not initially mentioned when the sites were recorded. All collections were pulled and re-examined for diagnostic artifacts where there was insufficient, incomplete, or non-existent catalogs on record. In total it was determined that 31 of the collections examined contained diagnostics, allowing for the development of a more refined chronology of those sites. Many sites consisted of only surface collections or a mix of both systematic and non-systematic surface surveys. Where diagnostic artifacts were present, they were in small numbers. A more detailed discussion of the results of this review are in Chapter 8. As a result of the re-analysis, all 31 sites had their site forms updated with the site registrar at the Maryland Historical Trust.

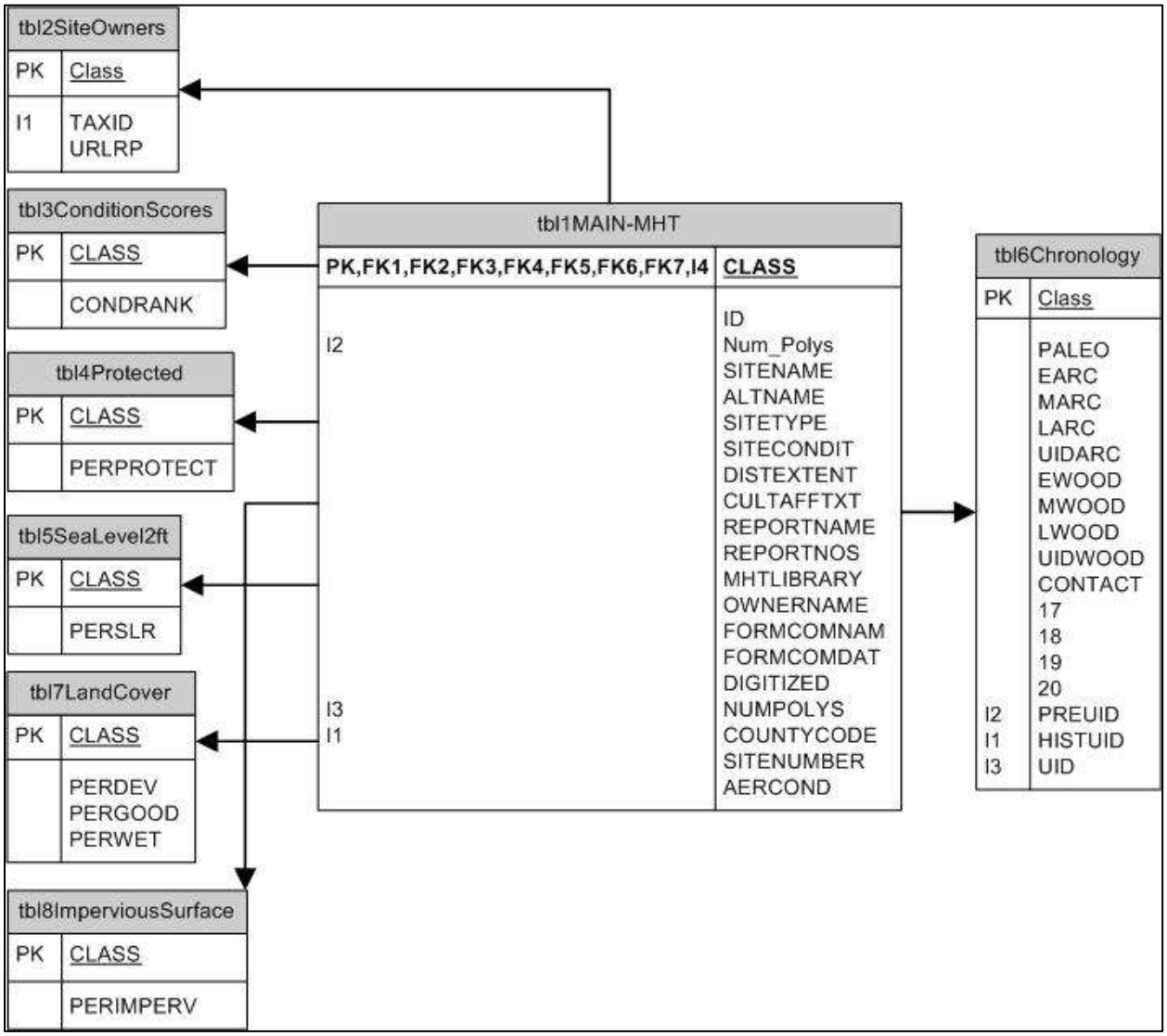

Figure 13. Site impact relational database schema.

Identifying areas of interest

Visual analysis of site locations throughout the county revealed a pattern of relative under-representation in certain areas of the landscape. Areas where numerous sites have been recorded include along the St. Mary's River, Newtowne Neck, Patuxent River Naval Air Station, and on state-owned park land. This high frequency of recorded sites in these locations is due to increased archaeological survey. Many are sites recorded in areas in compliance with Sections 106 and 110 of the National Historic Preservation Act.

Plotting the density of recorded sites has a bias towards areas of extensive archaeological survey. This may lead to cursory observations that the frequency of sites in these locations is a matter of them being areas of unique cultural importance, therefore more sites are located there. The density of sites, rather, is an artifact of incomplete survey data. Therefore, areas where fewer sites are found are more likely to represent areas where sites remain undiscovered or undocumented, not where sites are simply absent.

Identifying underrepresented areas became the basis for determining where to focus fieldwork efforts. Particular attention was paid to areas containing high-yielding agricultural soils along at-risk shores. Underrepresented areas with high agricultural value include Chaptico, Bushwood, Avenue, and Colton's Point along the Wicomico River and the east side of St. Clement's Bay, as well as along the Chesapeake Bay shore south of the Patuxent River Naval Air Station towards Dameron, and along the Patuxent in the vicinity of Hollywood and Mechanicsville. Using data and layers in the geodatabase and in consideration of time constraints, the area around the *7th District* of St. Mary's County was the focus of all fieldwork efforts as part of this project. Survey focus was placed in an area that runs roughly from the south side of Chaptico Bay and down the Wicomico River to Colton's Point.

This project area, located on the east side of the Wicomico, contained a number of advantages compared to other areas of the county that may be under-represented. This area of St. Mary's County remains rural and tracts of land measuring several hundred acres in size survive with little to no urban or suburban development. Large amounts of ground could be covered by securing permission from only a handful of owners in this area. Historically, this area is known to be rich in early colonial and contact period settlement and encounters (Strickland and King 2010; Bauer, King, and Strickland 2013; King, Trussell, and Strickland 2014).

Fieldwork Methodology

Once property owner permission was obtained, fieldwork could begin. A systematic surface survey method was chosen to quickly cover large tracts of land where ground visibility was considered good. A system of walking transects spaced approximately 100 feet apart was implemented. Any artifacts observed along and in sight of each transect was flagged, cataloged, and a GPS coordinate acquired. A detailed catalog for each site can be found in Appendix IV. Except under special circumstances, all artifacts were left in situ and no artifacts were recovered. A land title and historical records review was conducted for each site located through the surface survey.

To record important spatial and artifact catalog data, a field catalog (template found in Appendix V) was written with an accompanying GPS coordinate associated with the find(s). Photographs of selected artifacts (diagnostic, unusual) were taken and documented according to provenience in order to more precisely identify later. In rare circumstances, artifacts were collected, bagged, washed and processed for a more in-depth analysis of finds deemed difficult to identify in the field or from photos.

GPS coordinates were acquired through the use of the *GPSRecorder* or *My GPS Coordinates* apps for iOS™ and Android™ operating systems. Smartphone apps were chosen for the sake of simplicity, usability, accessibility, and portability. Each app was chosen based on sharing like-qualities and display information so that data could be used interchangeably. All coordinates were given in World Geodetic System 1984 (WGS84) in decimal degrees to 6 decimal places, with an overall accuracy of +/- 16 feet (or 5 meters).

Where ground visibility was greatly inhibited by grass, scrub, and/or shrub growth, shovel test pits were determined to be the best method for surveying. Shovel test pits – test holes approximately one foot in diameter and from one-half to two feet deep – are useful for documenting soil stratigraphy and recovering artifact samples and spatial information across broad areas.

At only one property, Little Hackley, were conditions unfavorable for systematic surface surveying. A total of 6 shovel tests were dug at Little Hackley. These shovel tests were spaced at 25 foot intervals in a single transect line between two abandoned buildings. The shovel tests were recorded using an arbitrary grid system with an origin point of N1000, E1000 (Figure 14). The grid system was tied into a known coordinate system by use of GPS location and measurements off of known landmarks and structures.

Figure 14. Shovel test pits in yard area - Little Hackley.

Shovel tests were excavated using round-point shovels and soil was screened through ¼-inch hardware cloth to standardize artifact recovery. All artifacts, including brick and shell, were retained. Each shovel test was carefully recorded using a Munsell soil color chart along with a list of the artifacts

recovered from each test. After recordation, all shovel tests were backfilled. Field measurements were made in feet and tenths of feet.

Artifacts and records were further processed according to state standards at the Archaeology Lab at St. Mary's College of Maryland. Artifacts were washed, dried, labeled, cataloged, and packaged using standard practices, and the collection was prepared for long-term curation. Spreadsheets containing artifact catalogs were developed for reporting and GIS mapping purposes.

Artifact distribution maps were created within an ArcGIS geodatabase. Distributions from the surface survey were completed by creating presence/absence maps as well as creating kernel density maps with a minimum radius of 100 feet. The minimum radius of 100 feet was implemented because of the 100-foot spacing of surface survey transects. Shovel test distribution maps were created using inverse distance weighting interpolation with contour classifications made based on standard deviations.

Chapter 8.
Results of GIS & Collections Analysis

As stated in the previous chapter, site impacts and the accuracy of site recordation were examined as part of this project. Site impact results were recorded in the Site Impact Database which were then queried and summarized in the results below. Sites with unidentified occupational periods were queried and examined for unrecorded diagnostic materials. Re-examination of collections allowed for the correction of 31 sites with previously unidentified chronological components.

GIS Analysis Results

As stated in the previous chapter, no comprehensive attempt was made at the verification or field checking of site location spatial data. All results reviewed in this section are made from the site location data as currently inventoried by the Maryland Historical Trust. These results serve as a means of making general statements about the data as it is currently recorded.

Using the methods detailed in the previous chapter, the impact of each recorded site was examined through high resolution aerial orthography. Each site was given a score which would determine a condition classification. A total of four condition classifications were generated and described as either undisturbed/most undisturbed, minor disturbance, moderate disturbance, and heavy disturbance/lost. A summary of the results of this analysis can be seen in Table 11. As stated in the previous chapter, this particular analysis was done only as a means of making general and quick assessments of site preservation and integrity and it is not a substitute for field verification. Because of limitations with aerial condition scoring, other variables discussed in the previous chapter will also be examined.

Score Range	Condition Classification	Sites	%
0 - 1.75	Undisturbed/Mostly undisturbed	625	*68.75%*
1.75 - 3.5	Minor disturbance	177	*19.47%*
3.5 - 5.25	Moderate disturbance	89	*9.79%*
5.25 - 7.0	Heavy disturbance/Lost	18	*1.98%*

Table 11. Summary disturbance scores for recorded sites.

According to the aerial condition scoring the vast majority of recorded sites (68.75%) are relatively undisturbed, as can be visually inspected through aerial photos. Sites with minor disturbances accounted for 19.47% of recorded sites. Sites with heavy disturbance or have been lost consisted of sites at water's edge that have eroded, or have been completely or nearly completely developed. Sites with these types of encroachment account for only 1.98% (N=18) of all recorded sites in the county. Development accounts for 4 of the 18 sites found to have been impacted by heavy disturbance. Erosion is to blame for 4 of the 18 sites having been heavily disturbed. Site 18ST539 has been completely lost due to erosion. This site is notable for having originally been a 19th-century tide mill in Westmoreland County, Virginia, near the boundary of Stratford Hall plantation and Westmoreland State Park. The shoreline change due to erosion has caused this site to be located well into the Potomac River, and putting it within the jurisdiction of St. Mary's County. A combination of both development and erosion is the cause of the heavy disturbances to 10 of the 18 sites. One of the sites impacted by erosion, 18ST51, has been re-investigated as part of this project and will be more fully discussed in Chapter 11.

Sites with good levels of integrity remain undisturbed or include only minor disturbance. These sites account for 88.22% of the total. Those with moderate to heavy disturbances, with poor integrity, stand at 11.77% of all sites.

It should be noted, however, that these statistics were generated using the available data and knowledge about the location and extent of each site boundary. If there are errors in the way sites were

recorded, especially those recorded before the widespread use of GPS and GIS systems, this can affect the overall statistical outcome of all data listed within this chapter (see Chapter 14 for data limitations and recommendations). It should be further noted that in very few cases have these sites been determined to be eligible for the National Register of Historic Places. It is likely that at least some, including the most well-preserved sites, may not be NR-eligible. For purposes of this report, the assumption is that additional work is necessary to provide NR determinations; the information presented here should serve as an overall guide to the nature of all archaeological sites now known in St. Mary's County.

Aerial photos alone can be problematic so it is important to take into account other sources of data when measuring site impacts. For example, observing a site is confined to an area of tree cover gives you little information about the stability of the ground surface, such as whether there are swamps or other wetlands impacting the site. Land cover data was also examined and separated into the classifications of Good, Developed, and Wet, as discussed in the previous chapter. It should be noted that due to the resolution of this data, areas such as developed land, for example, often include areas that are not necessarily developed, and this information provides only a generalization about the overall land use.

Areas were tabulated using zonal statistics to find how much of the three designated land cover types were present within each site boundary. The results for each of the 3 land cover types are shown in Table 12. As stated in the previous chapter, these statistics do not include underwater sites such as shipwrecks and wharves.

Percent Coverage	Sites - Good	% of sites	Sites - Developed	% of sites	Sites - Wet	% of sites
0 - 25%	250	*30.3%*	695	*84.2%*	530	*64.2%*
25 - 50 %	54	*6.5%*	26	*3.2%*	65	*7.9%*
50 - 75%	95	*11.5%*	32	*3.9%*	61	*7.4%*
75 - 100%	426	*51.6%*	72	*8.7%*	169	*20.5%*

Table 12. Summary coverage of reclassified NOAA/C-CAP land use for recorded sites.

As shown in Table 12, 84.2% of sites are located in areas where little development is taking place. A total of 51.6% of sites are located in areas considered good or well preserved, being relatively un-impacted by either development or encroaching wetlands. Unfortunately, more than a quarter of recorded sites are 50-100% impacted by wetlands like the conversion of dry land to marsh land.

To examine the impact of development on site integrity in finer detail, impervious surface information was acquired from Sue Veith, an Environmental Planner at the St. Mary's County Department of Land Use and Growth Management. Impervious surfaces are any hard surfaces through which water will not penetrate. This includes pavement, driveways, sidewalks, buildings, and airport runways. Excluded from this analysis were shipwreck and other underwater sites. Zonal statistics were performed in relation to the archaeological site boundaries and the impervious surface areas. The results can be seen in Table 13.

Percent Impervious Surface Impact	Sites	Percent
0 -25 %	842	*97.8%*
25 - 50 %	15	*1.7%*
50 - 75%	1	*0.1%*
75 - 100%	3	*0.3%*

Table 13. Summary of impervious surface coverage for recorded sites.

Nearly 98% of recorded sites have relatively low impacts due to the construction of impervious surface. Four sites were impacted by impervious surfaces of 50% or more. These sites would be among those included within the 18 sites listed as having heavy disturbances as assessed by aerial photos.

The four sites with the greatest impervious surface impacts are 18ST1-29A, 18ST1-29D, 18ST619, and 18ST621. Site 18ST1-29A is recorded as a late 18th-early 19th-century possible slave

quarter or tenant house. This site now lies under a gravel parking lot servicing dormitories and the gym at St. Mary's College of Maryland. Located just 200 feet to the south in the same parking lot is 18ST1-29D, an Early & Late Woodland site with small 17th century component with palisade fence. It should be noted, however, that 18ST1-29A and 18ST1-29D are impacted by semi-impervious gravel constructed at-grade, with minimal ground disturbance. Site 18ST619 is recorded as as a Late Archaic lithic scatter. This site is located in what is now the Hickory Hills apartment complex in California, Maryland. Site 18ST621 is a 19th/20th century house site which now lies under Maryland Route 235 at Old Rolling Road, also in California, Maryland.

Other forces are at play in terms of impacting the integrity of recorded sites, aside from the impact due to development – which, at least in St. Mary's County, appears to be rather minor as of late. However, archaeological sites are a non-renewable cultural resource and any loss can be seen as something that can happen to any site. No assessment can be made about the future impact to sites due to as yet unforeseen development projects.

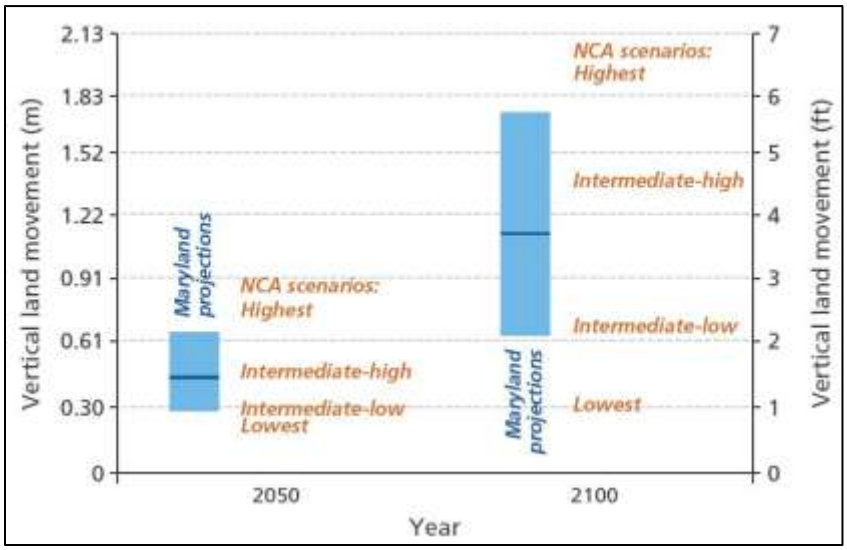

Figure 15. Sea-level rise predictions (Source: Boesch et al. 2013).

A more predictable threat to sites in St. Mary's County is the threat of storms, erosion, and rising sea-levels. The Maryland Climate Change Commission climate models and projections (Figure 15) estimate that, by the year 2050, the rise in relative sea-level will be between 0.9 and 2.1 feet, with a best estimate at 1.4 feet. By the year 2100, the projected range is between 2.1 and 5.7 feet, with a best estimate of 3.7 feet. Sea-level rise is a consequence of both rising average surface temperatures throughout the globe, and land subsidence due to postglacial rebound or sinking following the end of the last ice age approximately 12,000 years ago (Boesch et al. 2013).

These projections and estimates are based on multiple data sources such as CO2 emissions projections, global temperature monitoring, and local and studies on tidal changes and rates. Tidal gauges installed on Solomons Island in Calvert County, Maryland between 1937 and 1999 have measured an average rate of sea-level rise of 1.08 feet per century. Land subsidence rates (Figure 16) for nearly all of St. Mary's County are estimated at 0.66 feet per century (MCCC 2008). A total of 310 sites -- fully one-third of the presently known recorded sites -- would be impacted in some way by a 2-foot rise in sea-level (Table 14). These sites include those of all chronological periods from the Paleo period and into the 20th-century, many of which are multi-component sites. Among sites at risk include an unknown Woodland period burial (18ST18) located on St. Clement's Island. Most of the 310 sites consist of prehistoric shell middens and lithic scatters located directly at water's edge.

The percent inundation shown in Table 14 indicates the total site area that would be lost or inundated as a result of a 2-foot rise in sea-level, based on zonal statistics. Though data was acquired modelling both 2-foot and 5-foot rise in sea-level, the most conservative estimate was used to determine impacts under a best-case scenario. A conservative estimate of a 2.1-foot rise in sea-level by at least 2100 is expected. Nearly 10% of sites within St. Mary's County are at risk of losing 50% or more of their total site area.

Percent Inundation Due To 2 Foot Rise	Sites	Percent
No Impact	599	*65.9%*
0.1 - 25%	169	*18.6%*
25 - 50%	52	*5.7%*
50 - 75%	41	*4.5%*
75 - 100%	48	*5.3%*

Table 14. Summary of impacts due to 2-foot sea-level rise for recorded sites.

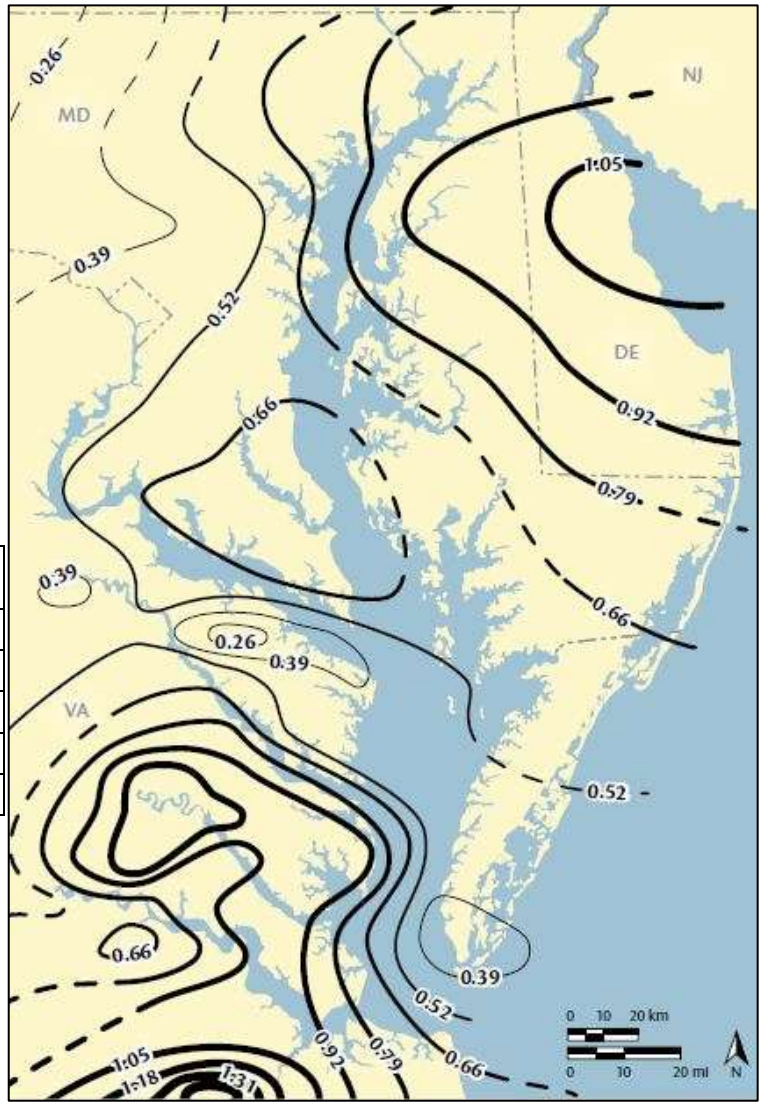

Figure 16. Land subsidence rates (Source: MCCC 2008).

Those most affected with an inundation of greater than 75% include a single site with a Middle Archaic component (18ST357), two sites with Late Archaic components (18ST129 & 18ST357), five sites with Early Woodland components (18ST28, 18ST227, 18ST228, 18ST357, & 18ST422), five sites with Middle Woodland components (18ST129, 18ST227, 18ST357, 18ST375, & 18ST686), and six sites with Late Woodland components (18ST44, 18ST227, 18ST228, 18ST265, 18ST357, & 18ST686). Three sites with 17th-century components (18ST323, 18ST357, & 18ST360) would be affected with a 75% inundation. All three of these sites are listed as 17th-century artifact scatters. Seven sites with 18th-century components would also be affected (18ST323, 18ST52, 18ST228, 18ST357, 18ST791, 18ST816, & 18ST818).

The areas in the county most at risk by a rise in sea-level are around Pt. Lookout and Scotland, both located at the very southern end of the county. Figure 17 depicts the impacts due to both a 2-foot and a 5-foot rise in relative sea-level in this area of lower St. Mary's County. Pt. Lookout State Park alone contains 13 recorded archaeological sites. With a 2-foot rise in sea-level, at least 6 of these sites will be completely inundated with water. With a 5-foot rise in sea-level, the number of known sites that will remain is 2, and both of these sites would be partially impacted by the effects.

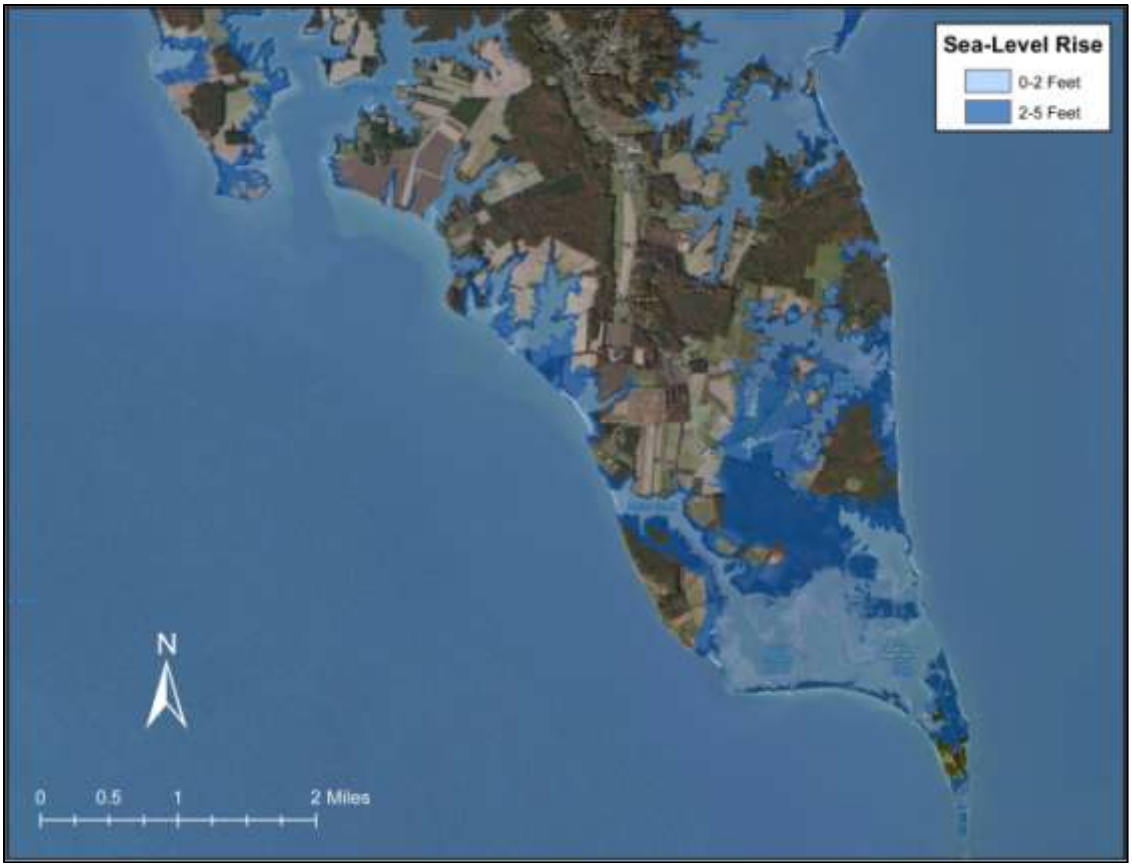

Figure 17. Sea-level rise predictions, lower St. Mary's County.

Erosion and shoreline loss is another contributing factor to the loss of archaeological sites in the county. The highest rates of erosion, according to the Maryland Geological Survey and the Center for Geographical Information Sciences at Towson University, are located along the shore of the Chesapeake Bay in Lexington Park and Dameron, south of the Patuxent River Naval Air Station. Erosion rates (Figures 18 and 19) in some areas of the county are estimated at upwards of 12 feet of shoreline lost per year. Few areas in the county experience rates of accretion or land gain. The erosion rate data was calculated by calculating the change in the shoreline edge over time using recent and dated coastal survey maps and aerial images. These measurements were taken every 20 meters, comparing the shoreline position over several years.

Though there are several threats to archaeological resources in the county, there are instances in which sites have been inadvertently preserved. Several data layers were obtained by the Maryland Department of Natural Resources that they classify as protected land as discussed in Chapter 7. Federally owned land is subject to cultural resource mitigation through Sections 106 and 110 of the National Historic Preservation Act of 1966.

Excluding shipwrecks and other underwater sites, zonal statistics were used to calculate the total area of each site protected by one of the above listed land and easement types (Table 15). Though a slim majority of recorded sites are unprotected, there is a surprising percentage of sites that are protected. A total of 360 sites (41.8%) are between 75-100% protected. Of those 360 sites, 340 of them are more than 90% protected.

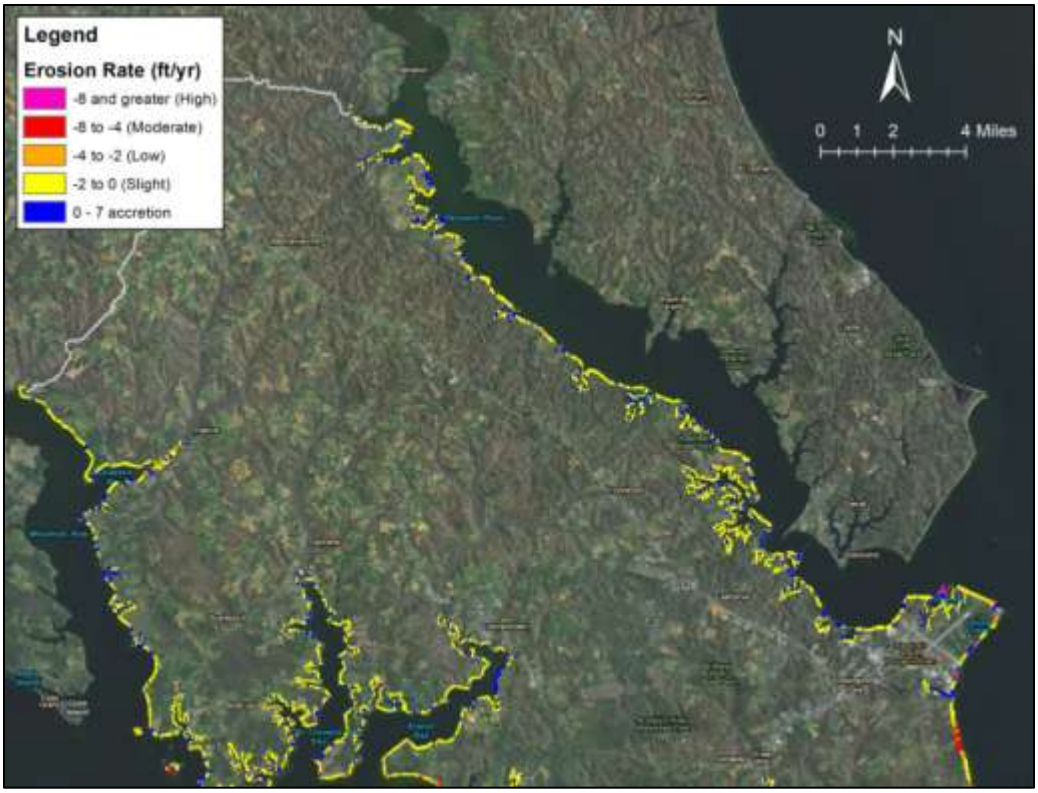

Figure 18. Recent erosion rates, northern St. Mary's County.

Figure 19. Recent erosion rates, southern St. Mary's County.

As stated in Chapter 7, all statistical data derived from the GIS database was compiled into a Microsoft Access database to identify at-risk sites. The Access database was also used to query the Maryland Historical Trust data for each site to identify sites with unidentified chronological components. Where possible, collections for these unidentified sites were re-examined – the results of which will be discussed in the following section.

Percent Protected	Sites	Percent
Unprotected	451	*52.4%*
Up to 25 %	20	*2.3%*
25 - 50 %	11	*1.3%*
50 - 75%	19	*2.2%*
75 - 100%	360	*41.8%*

Table 15. Summary of protected land coverage for recorded sites.

MAC Lab Collections Re-Examination

A total of 302 sites had unidentified components according to data from the Maryland Historical Trust. These sites were given classifications such as Archaic Unknown, Woodland Unknown, Prehistoric Unknown, Historic Unknown, or outright Unknown or unidentified sites. Only sites recorded prior to 1990 were considered for re-examination. This cut-off date was chosen as a manageable arbitrary starting point to narrow the focus to sites of the earliest provenience, when diagnostic information (particularly for prehistoric ceramics) was not as well known.

Of the 302 sites identified, 73 had collections curated at the Maryland Archaeological Conservation Laboratory. If available, artifact catalogs for the sites were re-examined. Several of the catalogs yielded important diagnostic information that was not available at the time the sites were recorded. Other catalogs contained vague descriptions, especially in regards to ceramics, both prehistoric and historic. Where no catalog existed, or if a catalog was vague or incomplete, the collection was pulled and examined for diagnostic artifacts.

A total of 31 out of the 73 collections at the MAC lab contained previously unreported or erroneously cataloged artifacts. These diagnostics allowed for better associating sites with chronological periods. The site forms for all 26 collections were subsequently updated and sent to the Maryland Historical Trust for their records. Appendix I contains summary of the diagnostic materials observed in the 31 collections.

Chapter 9.
Fieldwork Survey Locations

Fieldwork project areas consisted of four properties and locations measuring a total of 623.25 acres. The properties are here referred to by their project names: Montfort, Lower Brambly, Wicomico Fields, and Little Hackley. Total area covered at all four locations of the survey measured approximately 290 acres. All four locations are located in the Wicomico River Valley in St. Mary's County (Figure 20). The Council for Maryland Archeology has classified this region of the state, which is the western shore coastal plain, as Maryland Archaeological Research Unit Number 10 (Figure 21). As a result of the fieldwork, nine new archaeological sites were identified and the files of two previously recorded sites were updated.

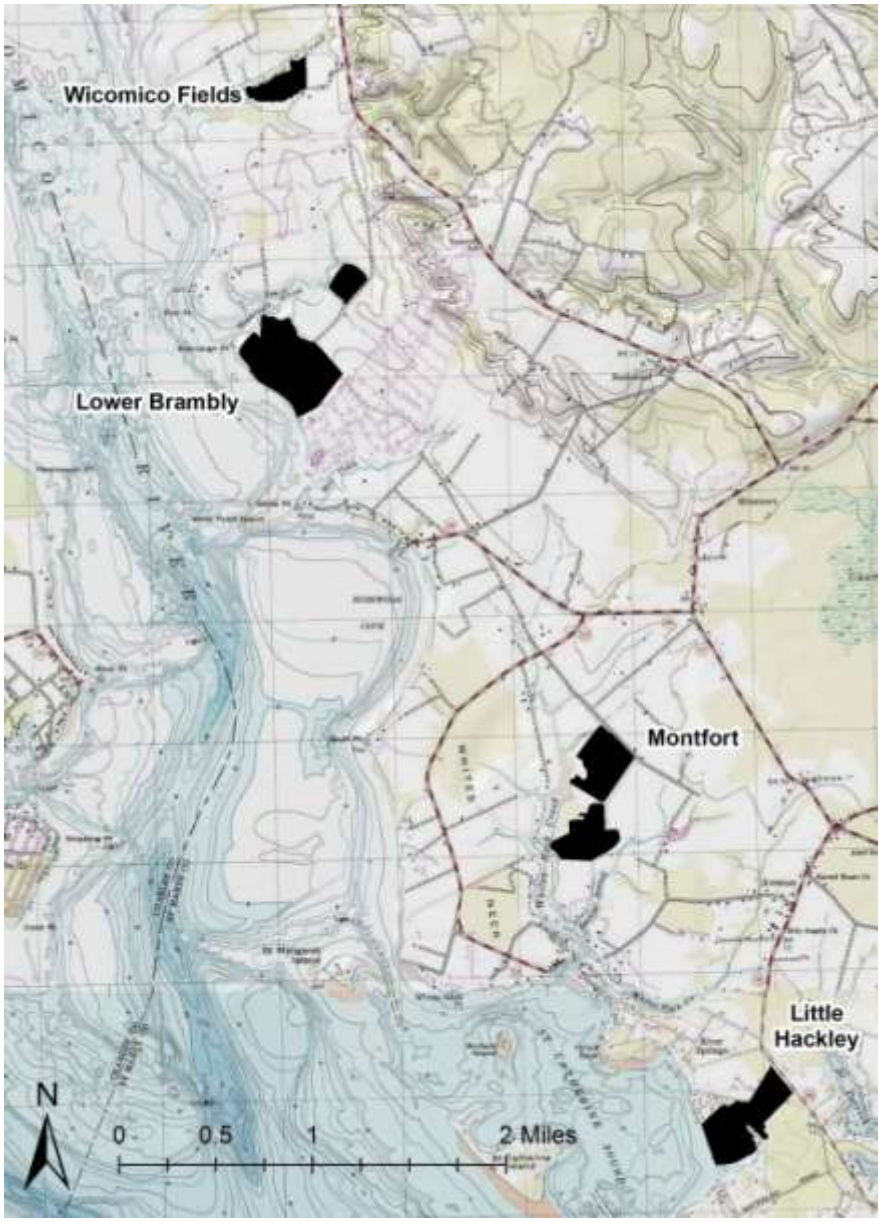

Figure 20. Location of project survey areas.

At the Montfort property, newly identified sites include Montfort 1 (18ST885), a prehistoric lithic and shell scatter and 19th-century artifact scatter; Montfort 2 (18ST886), an unknown prehistoric lithic and shell scatter, and 19th and 20th-century barn site; Montfort 3 (18ST887), an unknown prehistoric quarry and lithic scatter and mid-18th- to early 19th-century domestic site; and Montfort 4 (18ST888), an unknown prehistoric lithic and shell scatter. Additionally the Clifton site (18ST794) was updated to include a mid-18th through 19th-century domestic component in addition to the known 17th-century component.

At the Lower Brambly property, the Longview Beach site form (18ST51) was revised to reflect a large multi-component site, alternatively renamed as the Lower Brambly 1 site. This site is now classified as a Middle to Late Archaic lithic scatter, Early to Late Woodland village, possible Contact

village, a mid-18th- to late 19th-century plantation, and late 19th- through 20th-century farmstead. Lower Brambly 2 (18ST884), an unknown prehistoric shell midden and lithic scatter and possible 18th-century artifact scatter, was also recorded at the Lower Brambly property.

Two new sites were identified at the Wicomico Fields property. Wicomico Fields 1 (18ST882) was identified as a Late Archaic and possible Woodland resource procurement site with a mid- to late 18th-century plantation site. Wicomico Fields 2 (18ST883) was identified as an unknown prehistoric resource procurement site.

Lastly, two new sites were identified at the Little Hackley property. Little Hackley 1 (18ST889) was identified as an unknown prehistoric shell midden, 18th & 19th-century plantation, and 20th-century farmstead site. Little Hackley 2 (18ST890) was identified as a 19th to early-20th century farmstead, and 19th-century road site.

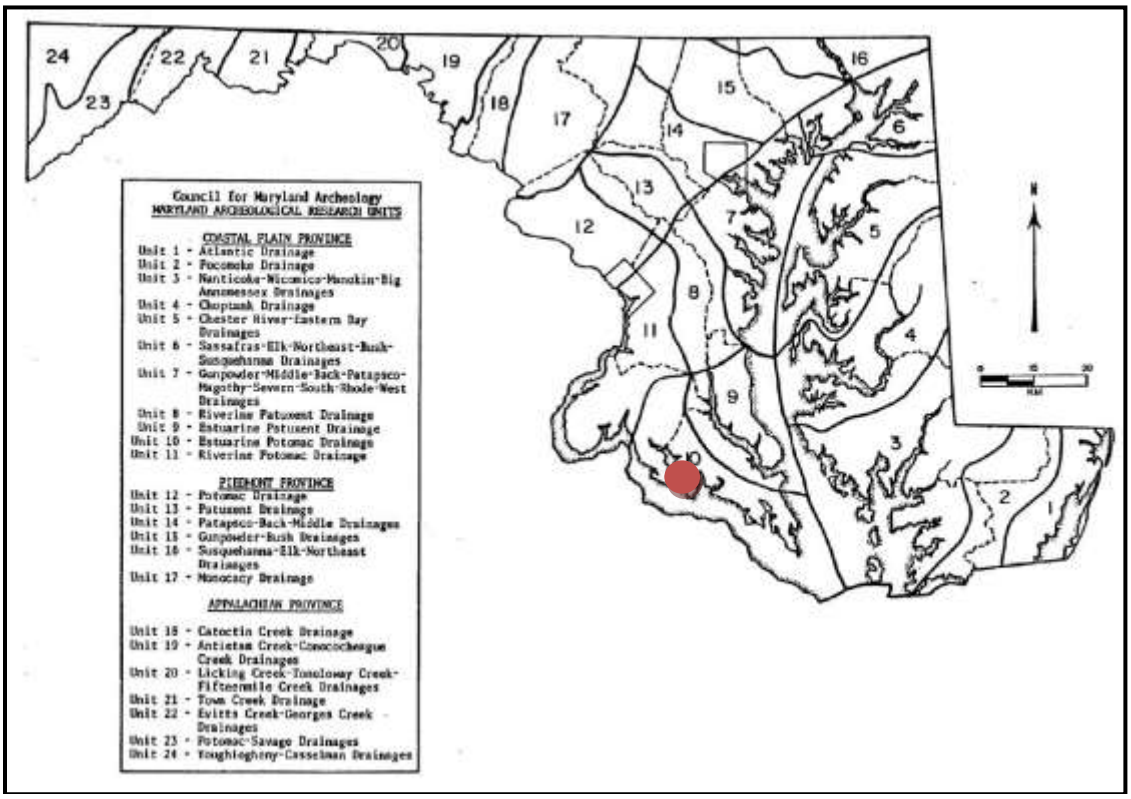

Figure 21. Maryland Archaeological Research Units.

Chapter 10.
Montfort Properties

The Montfort properties were surveyed beginning on March 10, 2015. The Montfort properties were chosen because of their proximity to the early 17th-century Clifton site (18ST794), the area of accessible land to cover, and the highly productive agricultural soils found on-site and in the vicinity. The site proved ideal to begin fieldwork, with high levels of ground surface visibility.

Project Area

The Montfort project area consists of three separate tracts owned by various members of the Montfort family. These tracts lie along the west side of Montfort Road, beginning at the intersection of Oscar Hayden Road in Avenue, Maryland. The three tracts are owned by Trueman Montfort (56.54 acres), James "Max" Montfort (20 acres), and Virginia Montfort (37.3 acres), for a total of 113.84 acres. The total area covered by the surface survey (where ground visibility was greatest) measured approximately 83.3 acres (73% coverage). Much of the land of Max Montfort was covered in tall grass and inundated with water, making a more comprehensive surface survey unfeasible.

The fields at the Montfort properties are situated on a low, relatively flat terrace with slopes measuring between 0 and 5 percent. To the west of the project area lies Whites Neck Creek. Several small inlets or springs draining into the creek are partially silted in with areas of marsh. To the east on the opposite site of Montfort Road lies Avenue Branch. Avenue Branch has undergone several changes during the last century in which several agricultural dams have been built, creating areas of marsh and inundating low-lying adjacent ground.

At the time of the Montfort properties survey, which took place in mid to late March, the fields were planted with a winter wheat cover crop which had not yet begun to sprout. The project area consisted of 4 such fields, separated by long drainage ditches and a driveway (Figure 22). The fields at Montfort have long been used as agricultural land. Figure 23 shows the different soil types in the Montfort properties project area.

Tract History

The Montfort properties sit on land once more commonly known as St. Clement's Manor. St. Clement's Manor was first patented to Thomas Gerard in 1642, and is described as followed:

> …a tract of land bounding upon the south with Potomeck River upon the west with Wiccocomico River upon the east with St. Clements bay called the fresh Creeke and likewise three Islands the one in Potowmock River called St. Clements te secon in the mouth of St. Clements bay called St. Katherines Island and the third lying neer unto it in the mouth of Wiccocomico River called St. Margaretts Island the said tract of land and Islands containing 6,000 accres in the whole (Archives 748:120).

Thomas Gerard willed his land to his son Justinian following his death in 1673 (SMC Wills 4:221). Records indicate that Justinian was living on a tract called Brambly, which was part of St. Clement's Manor. Due to the size of St. Clement's Manor, a lack of surviving colonial land records, and a penchant for not renaming parcels taken out of the original 6,000 acre tract, it becomes very difficult to accurately trace the land title of this particular property.

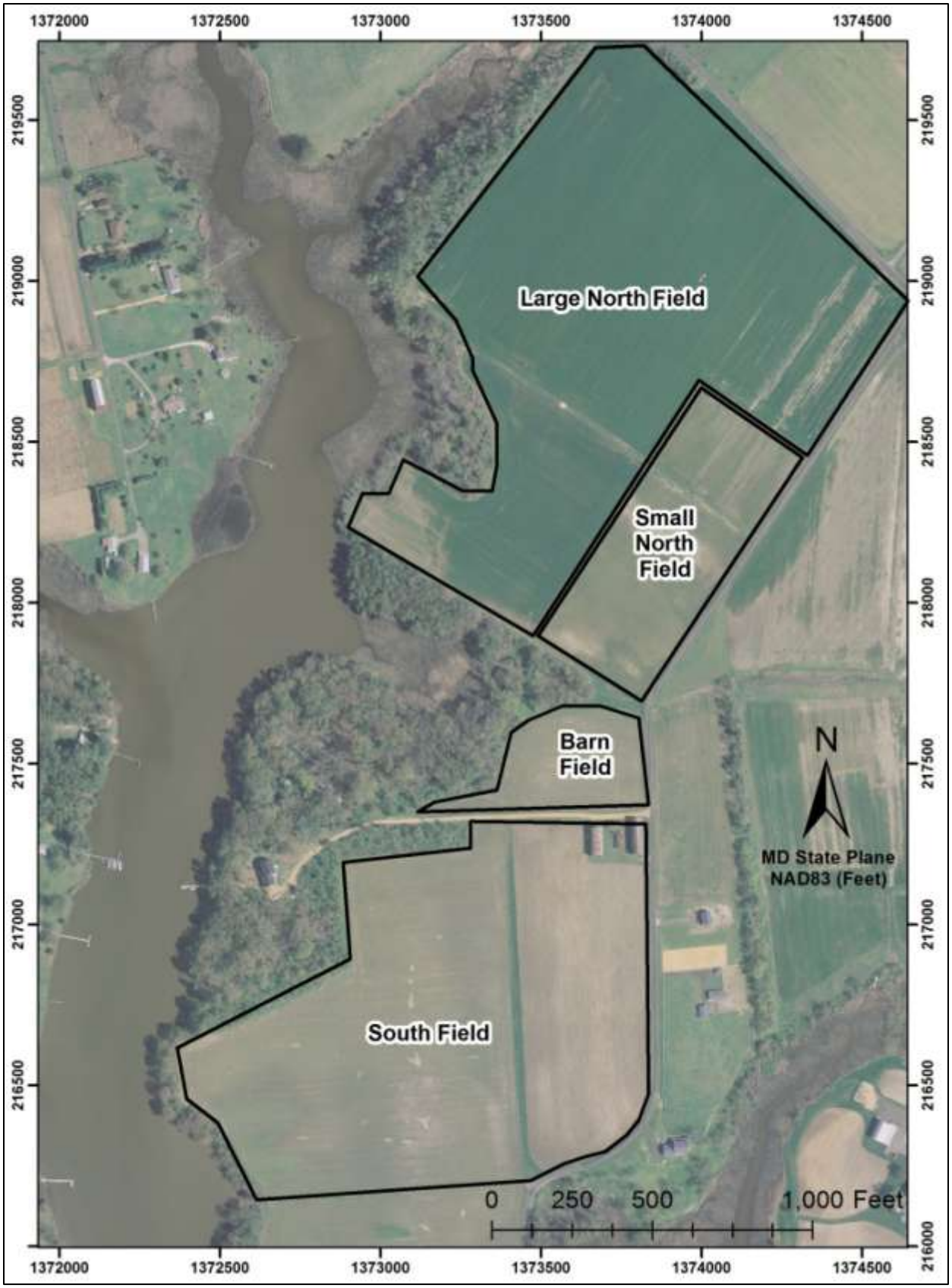

Figure 22. Montfort field areas.

Figure 23. Soil types in the Montfort project area.

A more complete title (Table 16) specifically attributed to the Montfort tracts cannot extend further than the 19th century at this time. The property was under the ownership of Richard H. Miles sometime prior to 1887. Miles owned several thousand acres of land in the area, making it difficult to identify a specific tract of land and track its ownership prior to Miles' acquisition. The problem is further exacerbated by the continued use of the name St. Clements Manor in the many tracts subdivided from it over the course of several hundred years.

Date	Grantee	Reference
Before 1/23/1991	James B. Montfort	Plat Book 34:61
1945	Anne Tilghman Montfort	SMC Wills JWG 01/254
Unknown	Josephine Garner Slingluff	SMC Wills JWG 01/254 (mention)
8/23/1887	Richard H. Garner	SMCLR JFF 10/183
Between 1868-1887	Richard H. Miles	SMCLR JFF 10/183 (mention)
1/17/1868	Richard H. Garner	Land Commissions JAC/185
Unknown	Josephine Miles Garner	Land Commissions JAC/185 (mention)
1855/1859	William H. Garner	SMCLR JTB 2/138 & 3/92
Unknown	John F. Lawrence	SMCLR JTB 2/138 & 3/92 (mention)
Unknown	Joseph F. Lawrence	SMCLR JTB 2/138 & 3/92 (mention)
	MISSING RECORDS	
1673	Justinian Gerard	SMC Wills 4/221
1642	Thomas Gerard	Archives 748:120

Table 16. Montfort property chain of title.

It is probable that Miles received the land, known then as *Springfield*, from a relative, Richard H. Garner sometime between 1868 and 1887. Garner received 140 acres, called Springfield, out of a land commissions court case involving Josephine Miles Garner in 1868. The commissioners determined that the land was to be appointed to Richard H. Garner as the division of the real estate of the deceased William H. Garner. No tract can be found definitively identifying when William H. Garner received the land, but he was sold two 100-acre parts of St. Clement's Manor by John F. Lawrence in 1855 and 1859. These tracts could possibly be what later became Springfield. John F. Lawrence had inherited the land from his father, Joseph.

Following Richard H. Miles' death sometime around 1887, the property went to his heirs, Oscar and Eleanora Miles. Oscar and Eleanora sold the land to their brother in-law, Richard H. Garner, the widower of Oscar's sister Josephine. In the deed from Oscar Miles to Richard H. Garner, Miles states that he was given far too generous portion of his father Richard H. Miles' estate, and wanted to leave it to the heirs of his deceased sister, Josephine. The land was later passed down to Josephine Garner. Josephine Garner married Trueman Cross Slingluff. At her death in 1945, Josephine left the land to her daughter, Anne Montfort. It is Anne Montfort's heirs who are the current owners of the property, the property having remained with the family since at least 1887.

Previous Investigations

Previous investigations undertaken at the Clifton property, located on the east side of Montfort Road, uncovered evidence of the home of Dr. Thomas Gerard. The site was first discovered in 2005 by Dr. James Clifton, the property's owner, when he was building a horse paddock and related structures. Dr. Clifton amassed a collection of 17th-century materials and contacted archaeologists at the Maryland Archaeological Conservation Laboratory. Julia King and Ed Chaney dug a series of 31 shovel test pits in order to increase the artifact sample for better dating of the site. This site was recorded as 18ST794, and is known as the Clifton site (King et al. 2012).

In the fall of 2012, students from the St. Mary's College of Maryland's Anthropological Research Methods class conducted a systematic shovel test survey of part of the Clifton property. A total of 155 shovel tests were dug at 25-foot intervals. Artifact distributions indicated a multi-component site consisting of 17th century material associated with Thomas Gerard at the north end of the survey area and a later 18th-and 19th-century occupation at the southern end of the survey area (see Figures 24 and 25). The extent of the later occupation was explored further through the surface survey at the Montfort properties directly adjacent to the Clifton property.

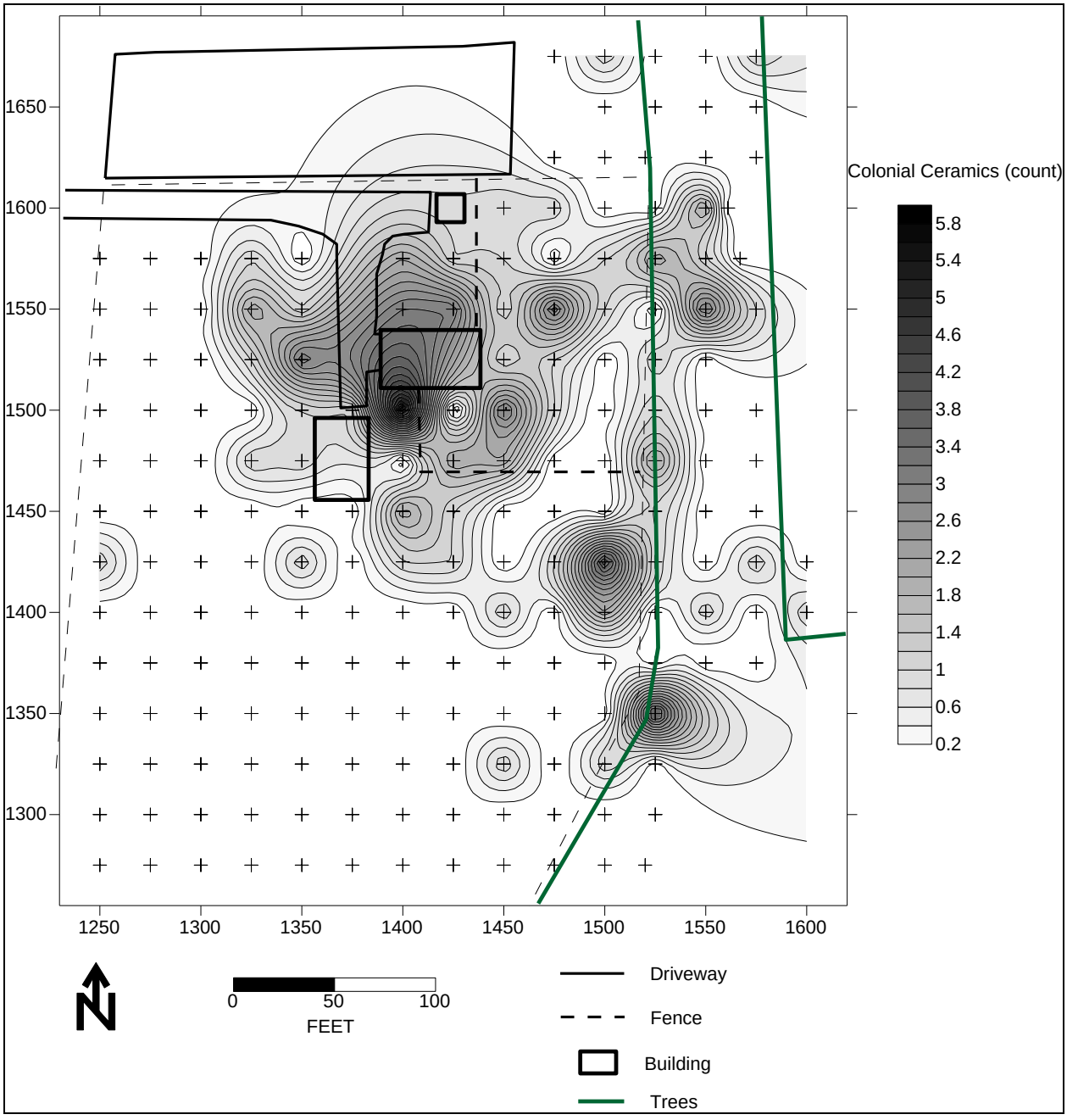

Figure 24. Distribution of colonial ceramics, 2012 shovel test survey, 18ST794.

On the Virginia Montfort tract, on the south side of a driveway leading to the home of Trueman Montfort, sit 2 tobacco barns said to have been built between 1920 and 1950. These barns are recorded in

the Maryland Inventory of Historic Properties under number SM-836 as part of a 2000 regional architectural survey by Kirk Ranzetta (MDIHP SM-836).

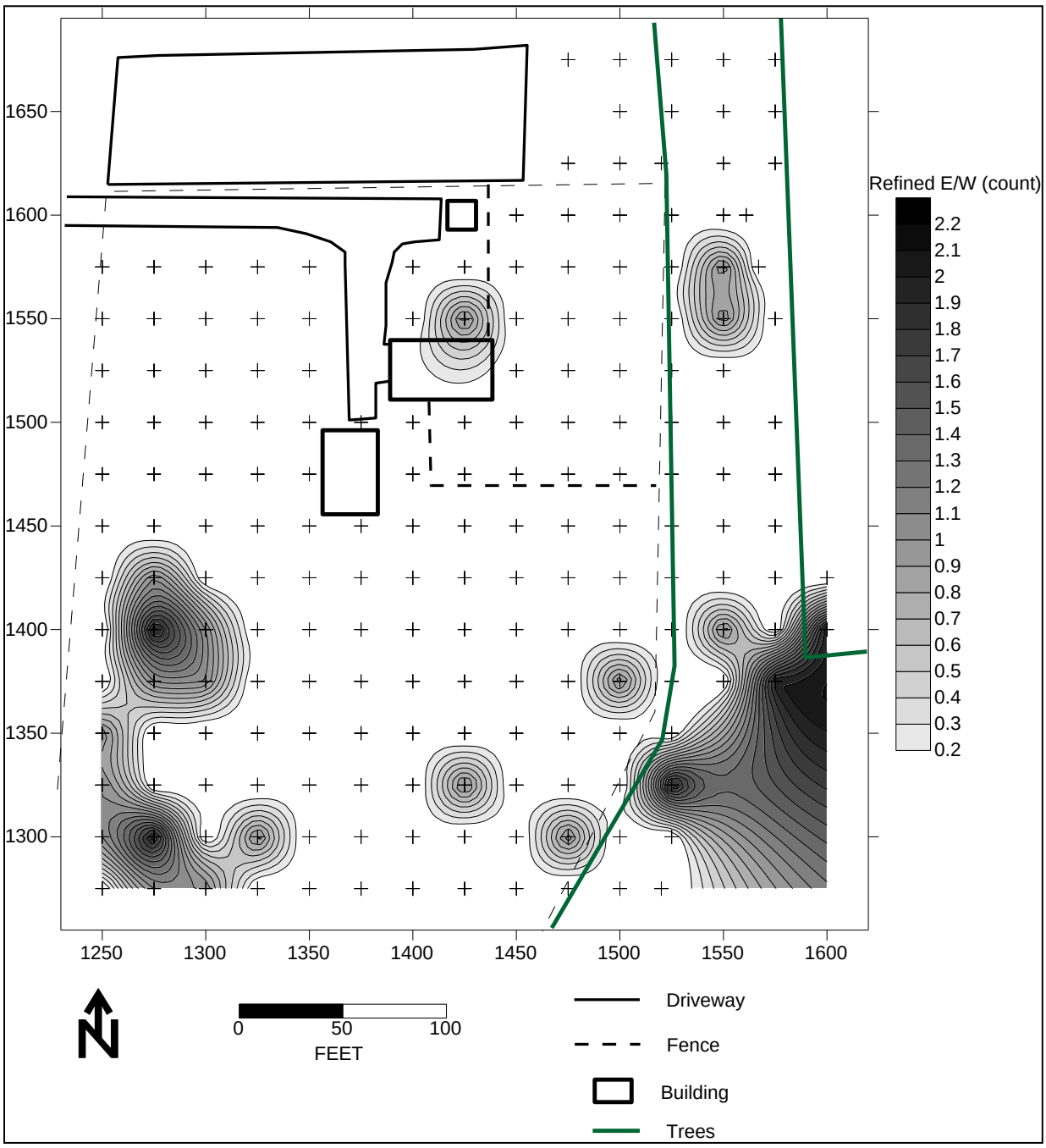

Figure 25. Distribution of refined earthenware, 2012 shovel test survey, 18ST794.

At least one of these large barns appear to have been constructed sometime after 1952. Aerial photos during that time depict a single barn structure that was oriented in a different direction to the current standing barns recorded in the inventory. By 1960 a second barn appears directly to the west with roughly the same size, dimension, and orientation as the barn present in 1952. It is also possible that the current barns were moved to their present locations. By 1970 the easternmost barn appears to have been re-oriented or replaced. Artifacts observed in the vicinity of the barns indicates the presence of earlier

structures. Through correspondence, Trueman Montfort has indicated that one or both of the barns at this location were lost to a tornado sometime in the mid to late 1960s, and was replaced sometime around 1970. National Weather Service records indicate a storm produced a tornado in St. Mary's County on January 27, 1967, though it can't be said this was the same storm event. It is therefore most likely that the barns at SM-836 date to sometime around 1970.

Distributions

A total of four new sites (Figure 26) were identified as part of the survey of the Montfort properties. Given the close proximity of each site, their distributions will be discussed as a whole. Additionally, the Clifton site (18ST794) was expanded to the south and west from what was previously recorded in 2005. Rather than record the whole area as one large site, the site boundaries are roughly based on the dominant chronological period in each area. The Clifton (18ST794), Montfort 2 (18ST886), and Montfort 3 (18ST887) sites areas were delineated primarily by their historical contexts, while the Montfort 1 (18ST885) and 4 (18ST888) sites are delineated because of their predominantly prehistoric context. Artifact distributions can be seen in Figures 27 through 34.

The distribution of red brick (see Figure 27) on the Montfort properties was concentrated in three main areas. Red brick was found in the south fields to the northwest of the Clifton home on the west side of Montfort road across from the horse paddock, around the location of the two tobacco barns (Montfort 2 site, 18ST886), and in the northern field approximately 400 feet north of the tobacco barns (Montfort 3, 18ST887). The cluster of brick at the Montfort 3 site also denotes an area strewn with large quartz and quartzite cobbles. It is unknown at this time whether this outcrop of stone is natural or if it implies some sort of architectural use. No mortar could be seen on any of the cobbles observed. A single unidentified square nail was found roughly in the center of the brick distribution at the Montfort 3 site area as well.

The distribution of red brick is roughly the same as the distributions of other historic materials such as ceramics (see Figure 28). The highest concentration of ceramics was found in the south field within the Clifton site (18ST794). There appears to be a pattern in regards to the distribution of coarse earthenware versus refined earthenware (see Figure 29) at the Clifton site. The distribution of coarse earthenware within this site area are tightly clustered in an area measuring roughly 150 feet square. The distribution of refined earthenware, however, covers an area roughly 850 feet in length. The tight clustering of refined earthenware may suggest the location of utilitarian rather than domestic activities. Porcelain (see Figure 30) was found within the Clifton (18ST794), Montfort 2 (18ST886), and Montfort 3 (18ST887) site areas. The distribution of porcelain appears to be separate from the main distributions of brick and other ceramics. The sample size of ceramics observed at the Montfort 3 site is too low to make any accurate determination about the use of space.

White clay tobacco pipes (see Figure 31) were found in small quantities, and only at the Clifton (18ST794) and Montfort 3 (18ST887) sites. Interestingly, no glass (see Figure 32) was found to be associated with the Montfort 3 site. Glass was primarily found associated with the Clifton site area. A single fragment of milk glass was observed within the Montfort 1 site area.

Lithic material (see Figure 33) is found throughout all five site areas. The heaviest concentrations appear in the south field. Another notable cluster of lithic material is in the Montfort 3 (18ST887) site area, roughly in the same area as the red brick and the area of large quartz and quartzite cobbles. This may imply that the outcrop of cobbles is a natural formation, and indicate a prehistoric resource procurement component to the Montfort 3 site. A secondary outcrop of cobbles was also seen roughly 1,000 feet to the northwest of this area, in the southwest corner of the Montfort 4 (18ST888) site. Interestingly, few lithic artifacts were observed at this site area.

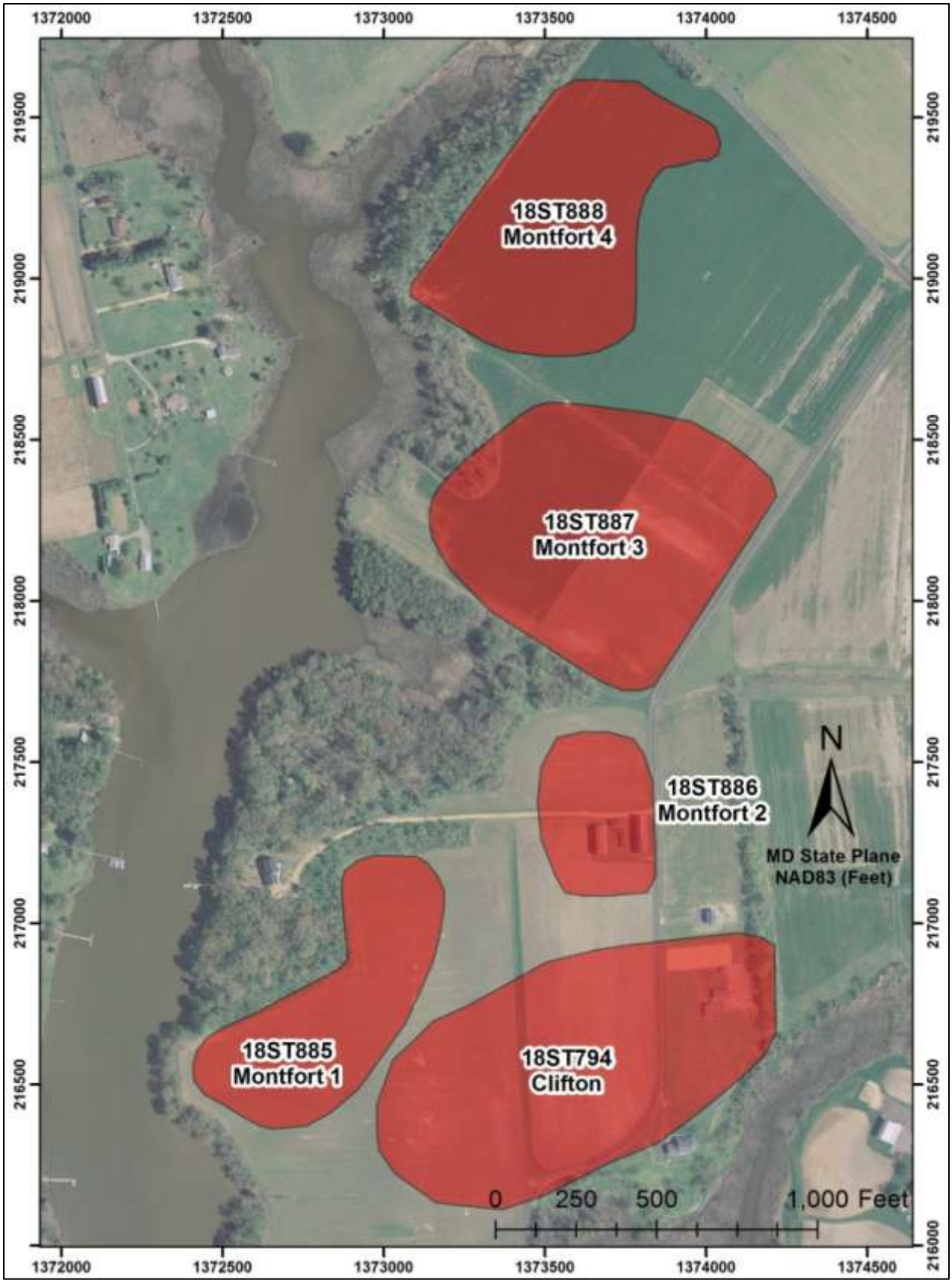

Figure 26. Montfort sites map.

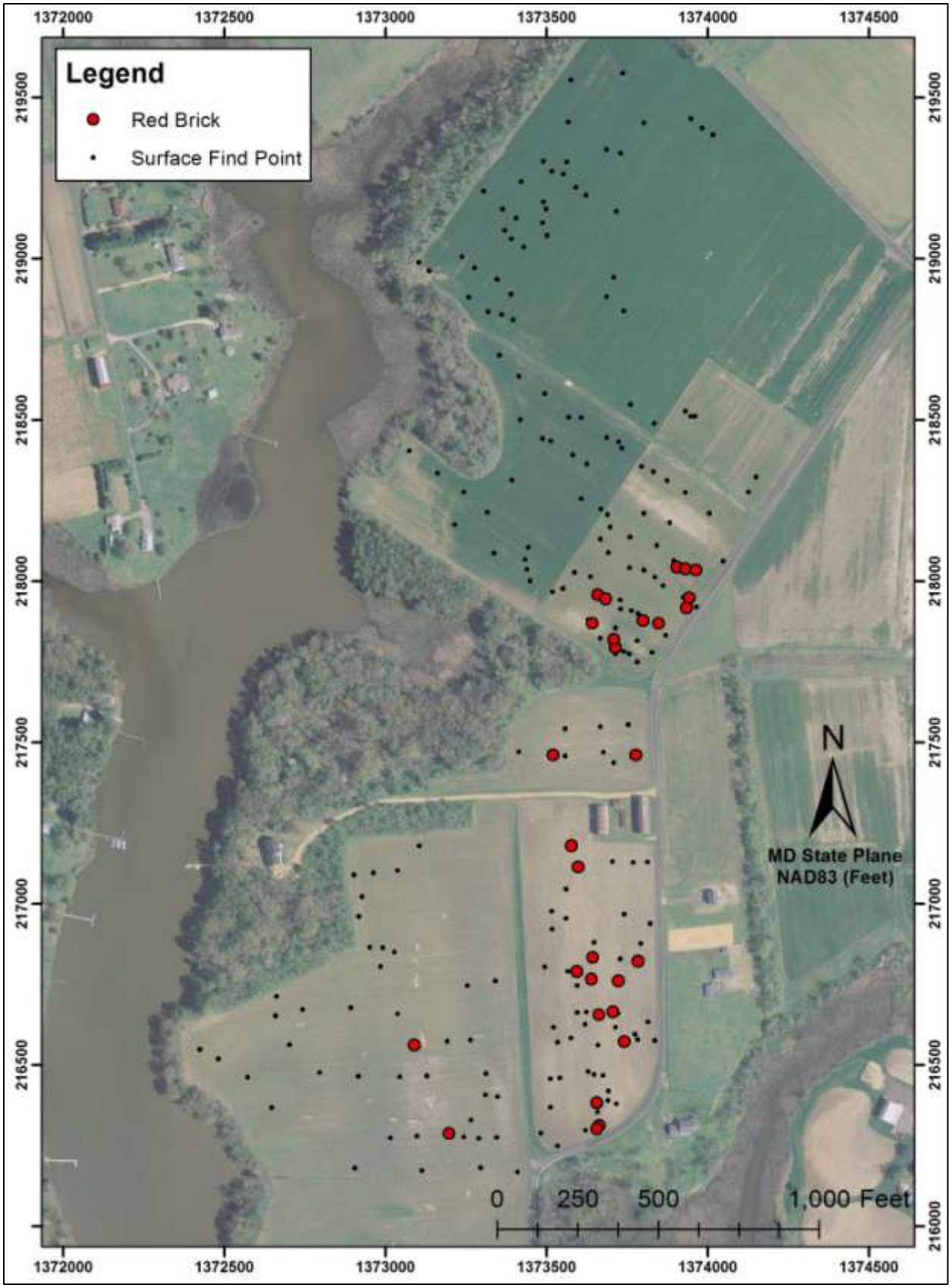

Figure 27. Distribution of brick - Montfort.

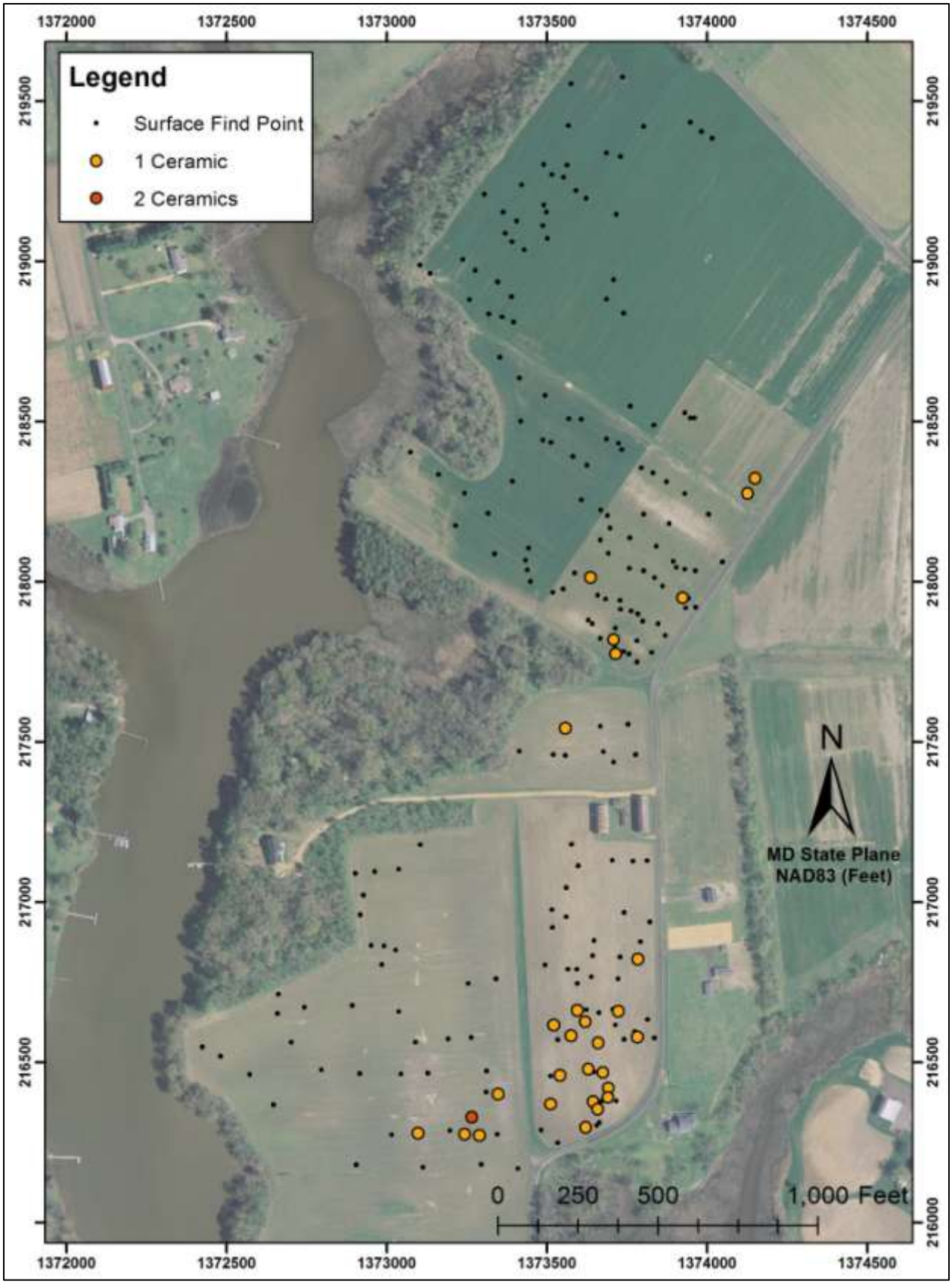

Figure 28. Distribution of ceramics - Montfort.

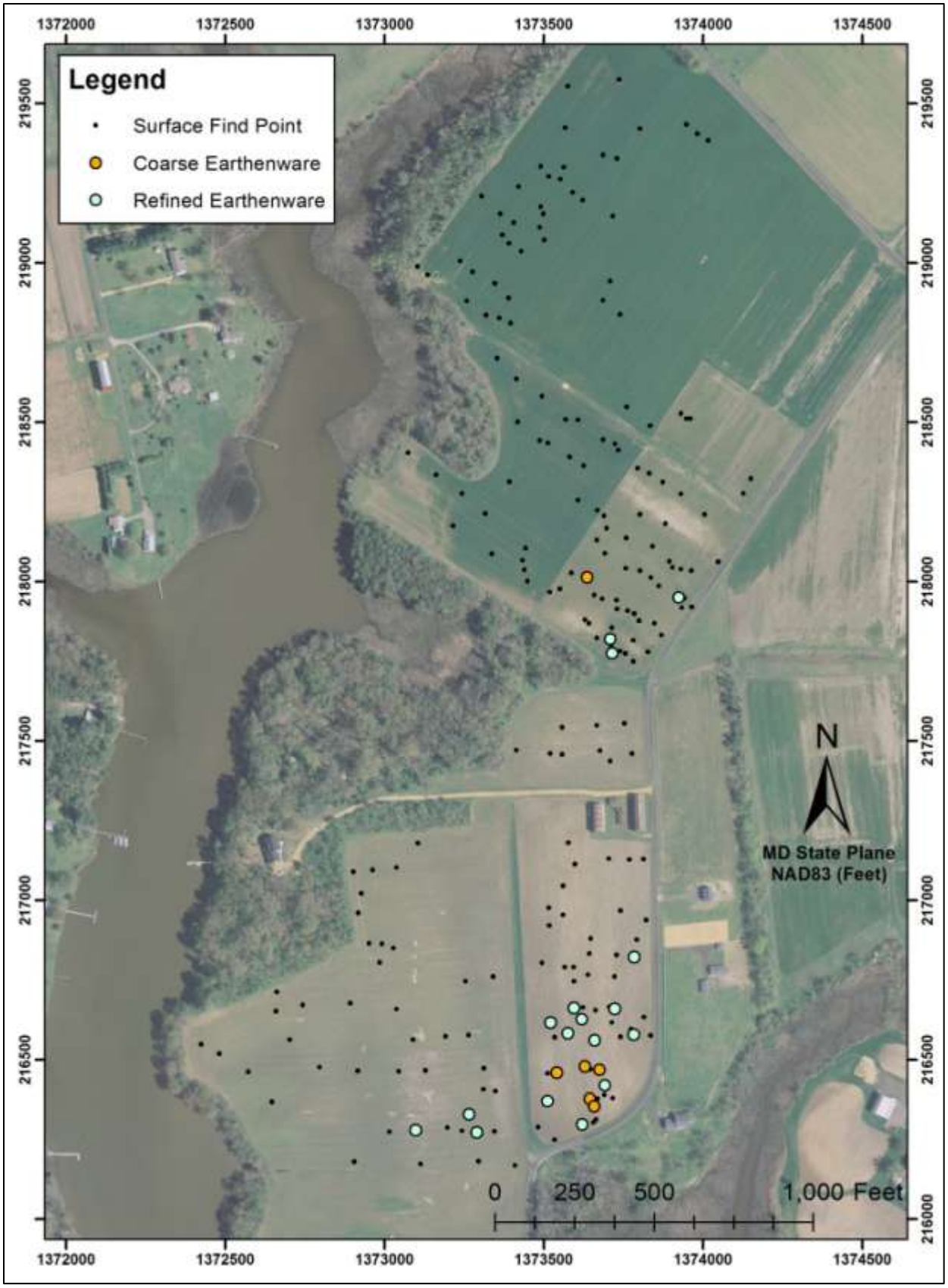

Figure 29. Distribution of coarse and refined earthenware - Montfort.

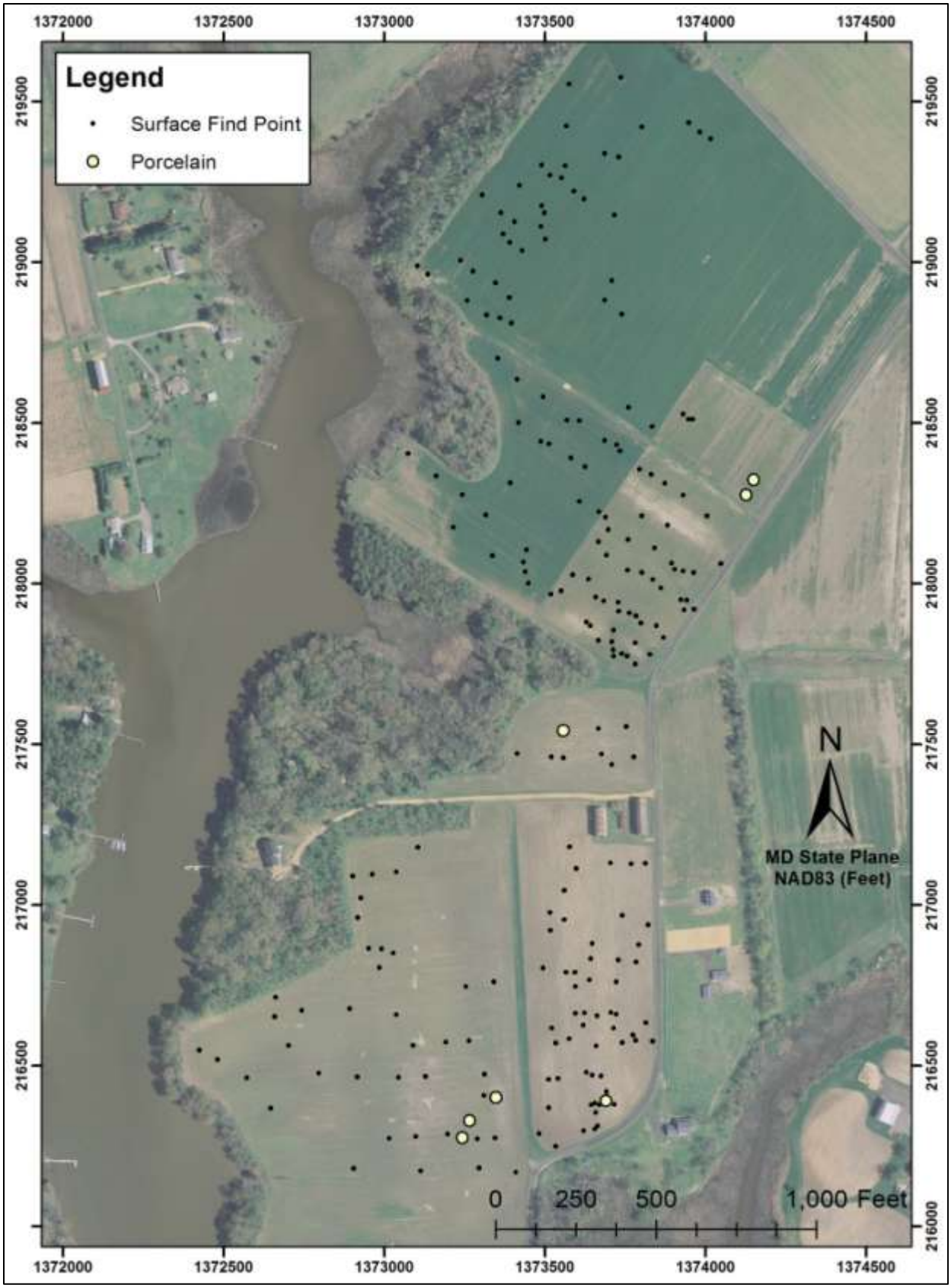

Figure 30. Distribution of porcelain - Montfort.

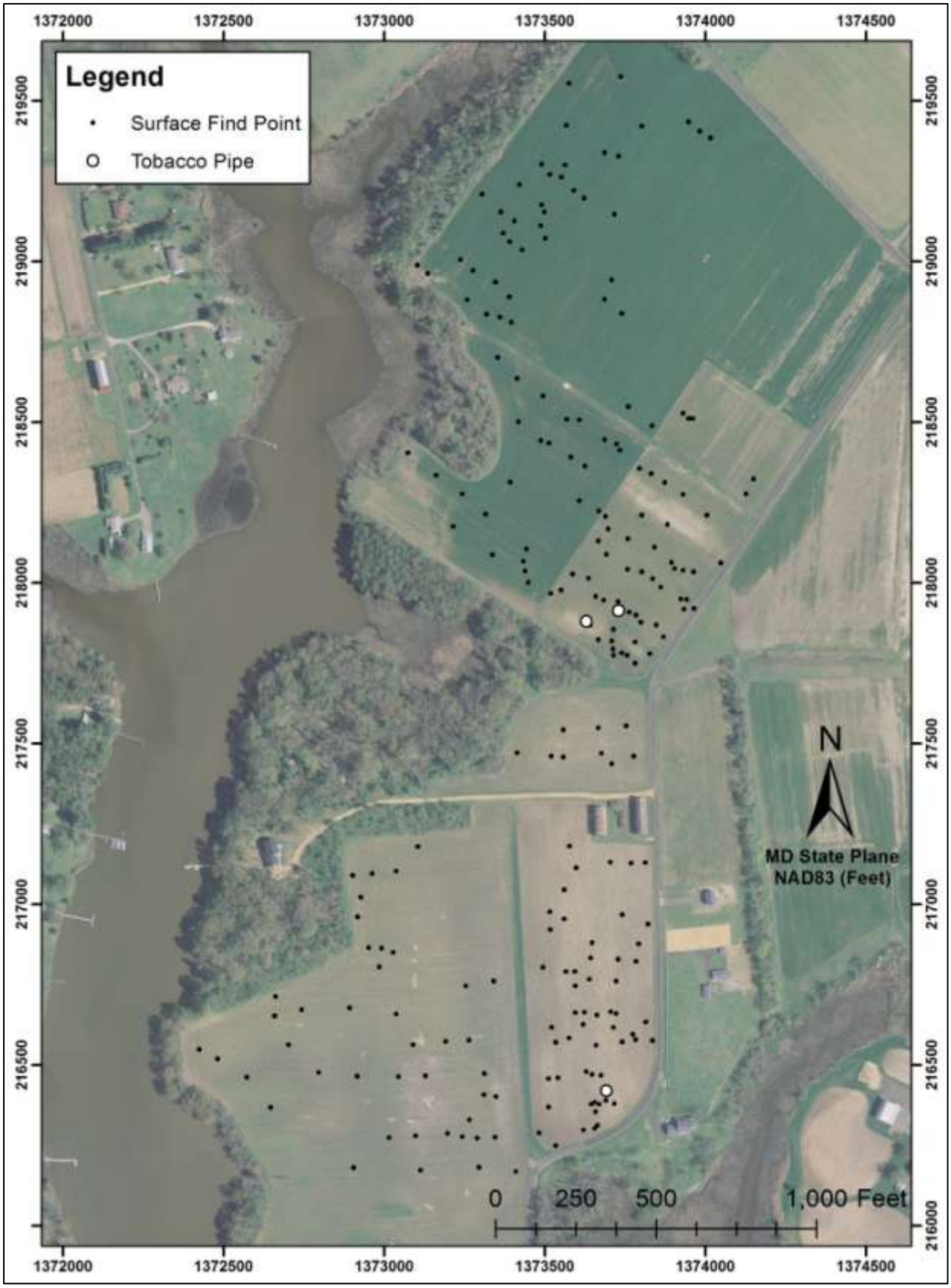

Figure 31. Distribution of tobacco pipes - Montfort.

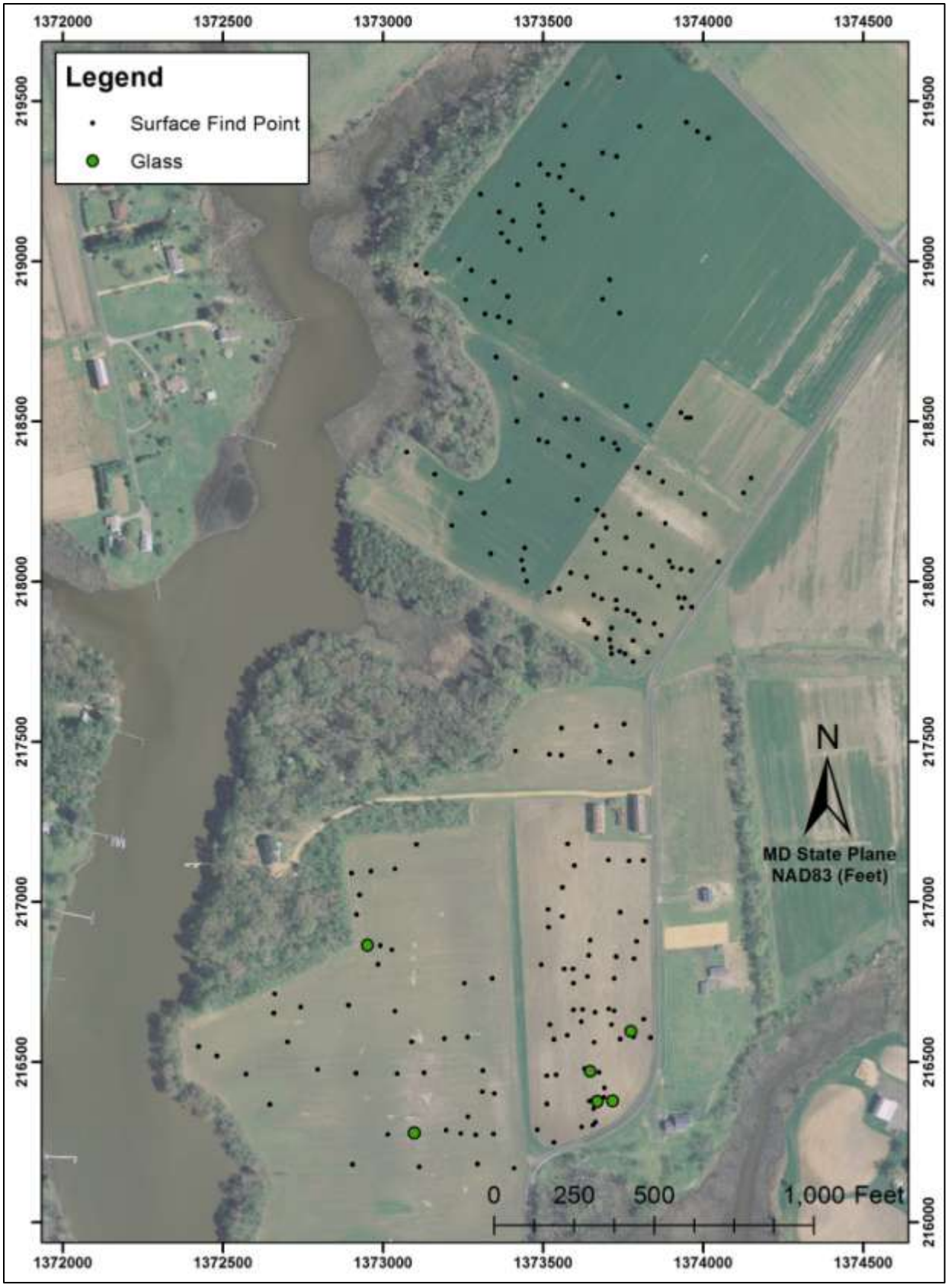

Figure 32. Distribution of glass - Montfort.

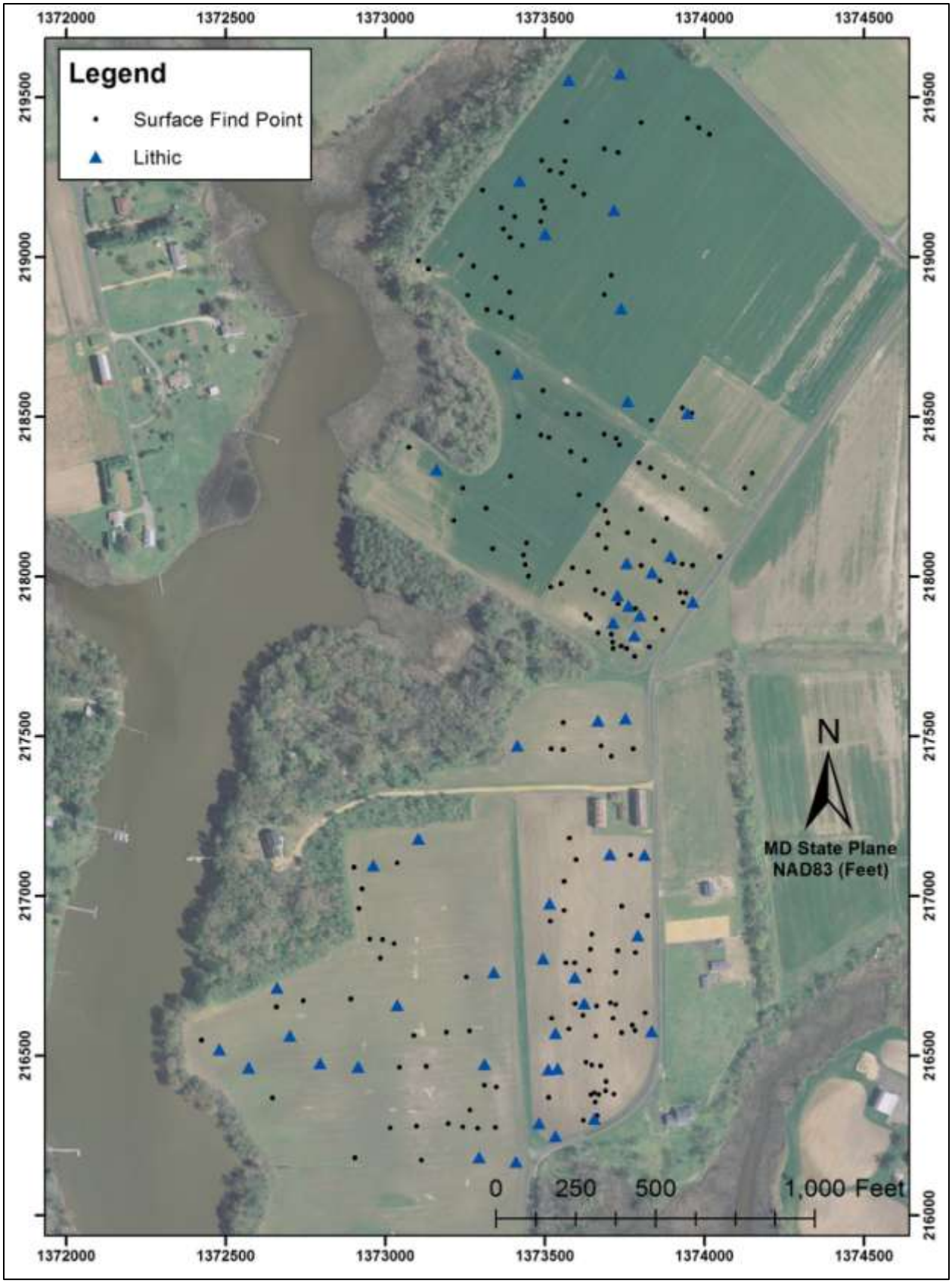

Figure 33. Distribution of lithics - Montfort.

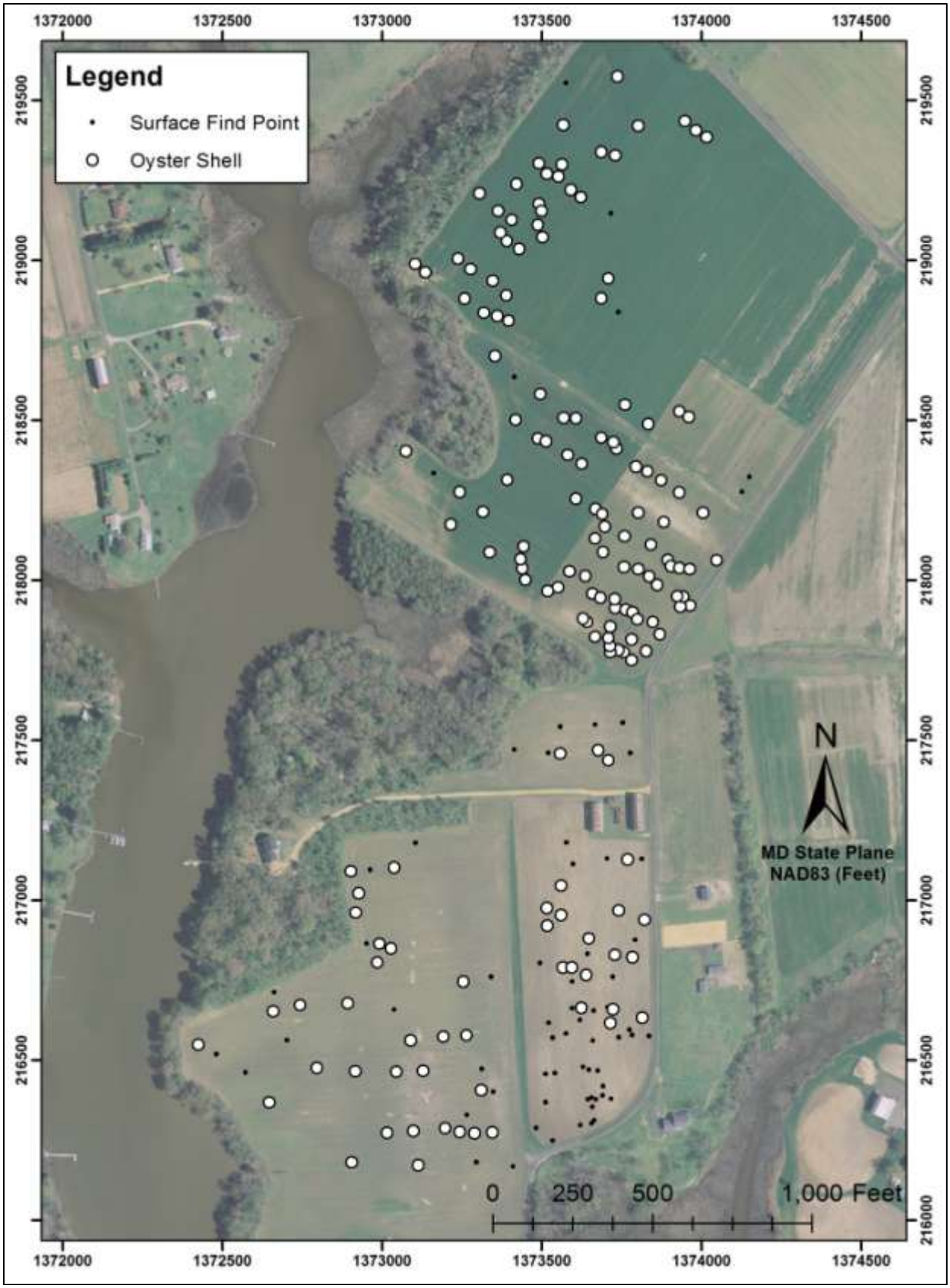

Figure 34. Distribution of oyster shell - Montfort.

Oyster shell (see Figure 34) is found at all five site areas. The distribution of shell at the Clifton site (18ST794) appears just outside the main core of historic artifacts. Shell is distributed rather sparsely at the Montfort 1 site (18ST885). Larger concentrations may yet be found in the wooded area to the north of this site area, which was not surveyed as part of this project due to issues with ground visibility. Oyster shell at the Montfort 2 site area (18SR886) is also sparse. Large concentrations of shell are seen at the Montfort 3 and Montfort 4 sites (18ST887 and 18ST888). The heaviest concentration of shell at the Montfort 3 site area appears associated with the distributions of historic materials. The extent of shell at this site area to the north of the historic core may represent part of the prehistoric component noted at this site. The shell at the Montfort 4 site area is more or less in a linear distribution, running parallel to an unnamed tributary stream and mark that drains into Whites Neck Creek.

Results – Clifton (18ST794)

Lithics	
Projectile Point	1
Core	1
Flake - Tertiary	2
Flake - Secondary	1
Fire Cracked Rock	11
Shatter	1
Tobacco Pipes	
White Clay Pipe Bowl	1
Ceramics	
UID Coarse earthenware	1
UID LGEW	3
Whieldonware	1
Creamware	7
Poss. Creamware	3
Pearlware	1
Edgeware	1
Sponge-painted ware	1
Whiteware	3
Porcelain	4
Glass	
Olive green	1
Aqua	3
Tableware	1
Architectural	
Large Brick Fragments	12
Modern	
Modern Bottle	2
Plastic Button	1

Table 17. Artifacts recorded from surface survey – Clifton, 18ST794.

Artifacts recovered from the surface survey of the extended Clifton site (18ST794) area can be seen in Table 17. Artifacts recovered from shovel testing in 2005 and 2012 are not included. As of the writing of this report, excavation units are currently being dug at the 17th-century core of the site on the east side of Montfort Road by the St. Mary's College of Maryland Survey Field School. A total of 63 non-shell artifacts were recorded. Though oyster shell was present, the quantity was so numerous throughout all of the sites that accurate counts could not be made. Shell was recorded only to the extent so that the extent could be spatially recorded.

Only one diagnostic prehistoric lithic artifact, a Piscataway or Rossville projectile point fragment, was observed during the surface survey. Piscataway and Rossville points are morphologically similar points, though Piscataway points generally date from the Late Archaic and into the Early Woodland. Rossville points, on the other hand date from the Early Woodland into the beginning of the Middle Woodland period. Other lithic material includes a single quartz core, two tertiary flakes, one secondary flake, 11 fire cracked rocks, and one lithic shatter.

Historic artifacts at the extended Clifton site are more numerous. A single white clay tobacco pipe bowl with possible molded design was recorded. A total of 25 historic ceramics were observed, including a single unidentified red coarse earthenware sherd, unidentified lead glazed earthenware sherds (n=3), a single sherd of Whieldon ware, creamware (n=7), possible creamware (n=3), pearlware (n=1), blue edgeware (n=1), sponge-painted refined earthenware (n=1), whiteware, and porcelain.

The earliest ceramics in the assemblage are the sherds of creamware and Whieldon ware. Both ceramic types were developed by Josiah Wedgewood in the mid 18th-century. Whieldon ware was created in partnership between Wedgewood and Thomas Whieldon, the namesake for the ware. Both wares were popular into the 1770s and 1780s, though creamware was known to be made into the early 19th-century (Miller and Hunter 1990:110; Barker and Halfpenny 1990; Noel Hume 2001:204, 209; Hildyard 2005:92).

Post-colonial ceramics include pearlware (1780-1830), blue edgeware (throughout 19th-century), sponge painted refined earthenware (1820s-1860s), and whiteware. Given the ubiquitous nature of porcelain without identifying markings or decorations, it is uncertain whether the porcelain observed at the Clifton site date to a colonial or post-colonial occupational period.

Glass tableware and bottle glass consisted of one fragments of olive green colonial-era bottle glass, three aqua-colored glass, possibly from pharmaceutical bottles of either colonial or post-colonial provenance, and a single fragments of colorless glass tableware. Two fragments of modern and molded bottle glass were also recorded.

Architectural artifacts consisted of only red brick fragments. Not every brick observed was recorded due to how numerous the fragments were on the surface. Large bricks at the site were noted for spatial distribution purposes. A total of 12 large brick fragments were recorded, including one which was a handmade brick bat. No dimensions were taken in the field.

Few modern or 20th-century artifacts were observed, other than the two fragments of bottle glass. A single plastic button was also observed.

Results – Montfort 3 Site (18ST887)

The Montfort 3 site (18ST887) survey revealed a total of 41 non-shell artifacts (summarized in Table 18). Lithics accounted for nearly 37% of the entire assemblage. Lithic material included a single core, worked cobble fragments (n=2), a single tertiary flake, a single secondary flake, two scrapers, fire cracked rock (n=6), and lithic shatter (n=2). No diagnostic prehistoric material was observed.

Though counts were not taken, oyster shell was found throughout the site area. The highest density of shell was observed in the immediate vicinity of historic materials.

Historic material accounted for the remainder of the artifact assemblage. Two fragments of white clay tobacco pipe were observed – a single undecorated pipe bowl, and a single pipe stem with a bore diameter of either 4/64" or 5/64". Historic ceramics included a single unidentified lead glazed earthenware sherd, creamware (n=2), pearlware (n=1), a refined earthenware identified as possibly creamware or pearlware, and two sherds of porcelain.

Architectural material consisted mostly of red brick fragments. A total of 16 large brick fragments were observed, though this is not representative of the total brick scatter throughout the site. A single unidentified square nail fragments was also observed. Given the provenance of the other historic material, this nail was most likely wrought as opposed to a cut nail.

An outcrop of quartz and quartzite cobbles was found in the same concentrated area of historic artifacts. It is possible that this outcrop of stone is architectural in nature, though no mortar was observed on the stone surfaces.

Lithic	
Core	1
Worked Cobble	2
Flake - Tertiary	1
Flake - Secondary	1
Scraper	2
Fire Cracked Rock	6
Shatter	2
Tobacco Pipes	
White Clay Pipe Stem	1
White Clay Pipe Bowl	1
Ceramics	
UID Lead-glazed earthenware	1
Creamware	2
Pearlware	1
Creamware or Pearlware	1
Porcelain	2
Architectural	
Large Brick Fragments	16
UID square nail	1

Table 18. Artifacts recorded from surface survey – Montfort 3, 18ST887.

The presence of creamware and pearlware suggests an occupation beginning as early as the mid-18th-century and terminating as late as about 1830. This site would have been occupied contemporarily with the earlier phase of the 18th/19th-century occupation at the Clifton site. The Clifton and Montfort 3 sites are separated by approximately 850 feet.

Results – Montfort 1, 2, & 4 Sites (18ST885, 18ST886, & 18ST888)

The Montfort 1, 2 & 4 sites (18ST885, 18ST886, and 18ST888) were all relatively low-density sites compared to the observed artifacts at the Clifton (18ST794) and Montfort 3 (18ST887) sites (Table 19). No diagnostic materials were observed at any of the three sites, though there may be some association with the historic and prehistoric components identifiable at the adjacent Clifton and Montfort 3 sites.

	Montfort 1 18ST885	**Montfort 2 18ST886**	**Montfort 4 18ST888**
Lithic			
Core	1	1	-
Biface	1	-	3
Scraper	-	1	-
Flake-Tertiary	2	-	-
Flake-Secondary	1	-	-
Fire Cracked Rock	4	2	2
Shatter	1	1	1
Historic			
Porcelain	-	1	-
Milk Glass	2	-	-
Large Brick Fragments	-	4	-
TOTAL	12	10	6

Table 19. Artifacts recorded from surface survey - Montfort 1, 2, & 4 - 18ST885, 18ST886, and 18ST888.

A total of 12 non-shell artifacts were observed in the Montfort 1 site area. The majority (83%) of the assemblage consisted of non-diagnostic lithic material. Lithics included one core, one unidentified biface, two tertiary flakes, one secondary flake, four fire cracked rocks, and one lithic shatter. A single milk glass fragment was the only historic period artifact found within the Montfort 1 site area (18ST885).

The Montfort 2 site (18ST886) is centered around the location of two mid-20th-century tobacco barns. Only 10 non-shell artifacts were found at this site. In this location there once stood a set of older tobacco barns, though their initial construction date is unknown. Historic material, likely associated with the tobacco barns, included one sherd of undecorated porcelain, and four large red brick fragments. Lithic material did not appear to be concentrated in a single area, and consisted of one core, one scraper, two fire cracked rocks, and one lithic shatter.

The Montfort 4 site (18ST888) is primarily defined by a long linear scatter of oyster shell. This shell runs parallel to an unnamed tributary stream and marsh that drains into Whites Neck Creek. The Montfort 4 shell midden consisted of six non-shell artifacts – none of which are diagnostic. Three unidentified bifaces, two fire cracked rocks, and one lithic shatter were observed. Like the Montfort 3 site, an outcrop of quartz and quartzite was observed in the southwest corner of the site boundary. This possibly represents a natural resource procurement area, as no historic period artifacts were observed.

Conclusions

Archaeological resources along Montfort Road and Whites Neck Creek are rich. Artifacts observed during the 2015 surface survey span a period of time as early as the Late Archaic period and

through the 19th-century. Diagnostic prehistoric materials were few, and it is unknown how the prehistoric occupations at each site might be related, if they are related at all.

Documentary evidence of the property during the 18th-century is indeterminate. Without knowing the ownership of the different Montfort tracts in the 18th-century it is difficult to say whether the later colonial occupations of the Clifton (18ST794) and Montfort 3 (18ST887) sites are related. The Montfort 3 site appears to be abandoned sometime in the early 19th-century, while the occupation at the Clifton site appears to continue well into and throughout the century.

The proximity of the 18th/19th-century occupation of the Clifton site to the 17th-century site of Thomas Gerard on the opposite side of Montfort Road is a testament to the desirability of this land during the historic period. The saying *a good place to live is a good place to live* is an accurate statement for this small peninsula of land. The proximity and extent of all the sites recorded here is indicative of this demonstrable fact.

Chapter 11.
Lower Brambly

Field surveying of the Lower Brambly property began on March 24, 2015. The Lower Brambly property was investigated at the advice of its owner, Ms. Nancy Wolfe. Ms. Wolfe had long suspected there to be a prehistoric village site on her property with a vast field of oyster shell. No sites had been recorded on the property, which had been very informally visited by archaeologists over the past 10 years. The Lower Brambly property, located along the Wicomico River, proved to be one of considerable archaeological value, as will be discussed throughout this chapter.

Project Area

At the time of the Lower Brambly survey, which took place in March and April of 2015, the fields were covered in winter wheat cover crop. Shortly after fieldwork began, herbicide was spread throughout some of the fields in preparation for the planting of soybeans. The property was divided into 6 large fields, which were separated by the long gravel driveway that runs roughly in an northeast-southwest direction throughout the entire length (Figure 35). Perpendicular to the driveway were a series of drainage ditches that feed into two small inlets of Bramleigh Creek on the north end of the property. Because 3 of the 6 fields were in active cultivation, only fields 1, 2, and 5 were investigated. Of all 6 fields, only Field 5 was left completely out of cultivation.

Figure 35. Lower Brambly field areas.

The Lower Brambly property has continually served as a plantation and a farmstead since the 17th century. The soil is highly productive, situated on a low terrace along the shores of the Wicomico River. Figure 36 shows the different soil types in the Lower Brambly Project area.

Figure 36. Soil types in the Lower Brambly project area.

The landscape is relatively flat with all areas surveyed having slopes measuring between 0 and 5 percent. To the north and west of the project area lies Bramleigh Creek. To the south and west is the Wicomico River, with stunning views across to Charles County, and across the Potomac River into Virginia, where the cliffs are clearly visible. To the south and east is a row of trees denoting the boundary between the property and the Longview Beach subdivision. Not far to the north and east stands a hill-slope leading to the upper terraces overlooking the Wicomico valley.

Field 1 (40 acres) consists of the area northwest of the gravel driveway and 19th century Lower Brambly house (SM-108), directly adjacent to the Wicomico shore. Field 2 (52 acres) lies directly across the driveway from field one, extending from the south side of the house to the property line with Longview Beach. Field 5 (15.5 acres) lies on the same side of the driveway as Field 1, but separated by Field 3, approximately 1,400 feet to the northeast.

Ground visibility on Fields 1 and 2 was between 75 and 100 percent once herbicide had been distributed. Field 5, which had been left fallow, had poorer visibility due to the excessive growth of grass, weeds, and wild flowers. However, visibility in Field 5 was between 25 and 50 percent.

Tract History

The Brambly tract, originally part of St. Clements Manor, was given to Justinian Gerard in 1663 by his father Thomas Gerard. Justinian called Brambly his home, even appearing in land records of Westmoreland County, Virginia as "Justinian Garrard of Bramly" (Westmoreland County Land Records 1665-1677, pp. 6). In Augustine Hermann's map of Maryland, published in 1673, the tract is labeled "Bromly". In his will, executed in 1688, Justinian bequeathed the land to his wife Sarah. Following this time it appears much of the Gerard family had relocated across the Potomac into Westmoreland County, Virginia. Sarah Gerard's will was proved there, as were her children's wills.

Who precisely had taken up the land following the tenure of Justinian and Sarah Gerard is unclear. It appears as though the land was in possession of their nephew John Gerard, the son of Justinian's brother of the same name. John Gerard was married to Jane Orill. Orill remarried a man named Richard Llewellin who survived her following her death in 1721. It is John Llewellin, the son of Jane and Richard that is known in later records to have taken up residence on the Brambly tract. The early chain of title (with citations) in Table 20 is reconstructed partly by the assumptions made based on these familial relationships.

Date	Grantee	Reference
08/03/1987	Nancy D. & Lawrence T. Wolfe	SMCLR MRB 369/321
04/27/1955	Augustus C.F. & Harold W.A. Wolfe	SMCLR CBG 56/293
Unknown	Anderson Dana Hodgdon	SMCLR CBG 56/293 (mention)
06/01/1883	Truman H. Thomas	SMCLR JFF 6/395
10/09/1866	Heirs of William H. Thomas	SMC Will JTMR 1/171
12/09/1857	William H. Thomas	SMC Will JTMR 1/1
10/10/1836	George Thomas	SMCLR JH 10/530
06/10/1833	Edward I. Heard	SMCLR JH 9/480
03/21/1827	Joseph Stone	Chancery Court Coombs vs. Jordan
09/24/1810	Jeremiah Booth	Chancery Court Coombs vs. Jordan
Before 1798	Richard Jordan	Archives 729:3091, SMCLR JH 9/480 (mention)
By 1748	John Llewellin	Inferred
05/02/1721	Richard Llewellin	MD Calendar of Wills 18:7
04/25/1711	Jane Oril Gerard	Westmoreland County wills page 46
Unknown	John Gerard	Inferred
01/22/1688	Sarah Tucker Gerard	Prerogative Court Wills 6/43
1663	Justinian Gerard	Archives 49:579

Table 20. Lower Brambly chain of title.

John Llewellin was a somewhat influential and well known person during the 18th century in the neighborhood around Bushwood Cove. John Llewellin served as the tobacco inspector for this area from at least 1748 to 1781. It was somewhere on or near his property of Brambly that he was known to have kept a tobacco warehouse. In 1759, the General Assembly enacted that public warehouses for the inspection of tobacco were to be established, with "one inspection at Wiccocomico or on the Land of John Lewellins" (Archives 58:448). The general location of Llewellin's home or the warehouse is depicted on several late 18th century maps of Maryland (Figures 37 & 38), indicating that Llewellin's property was a known landmark in the Wicomico landscape.

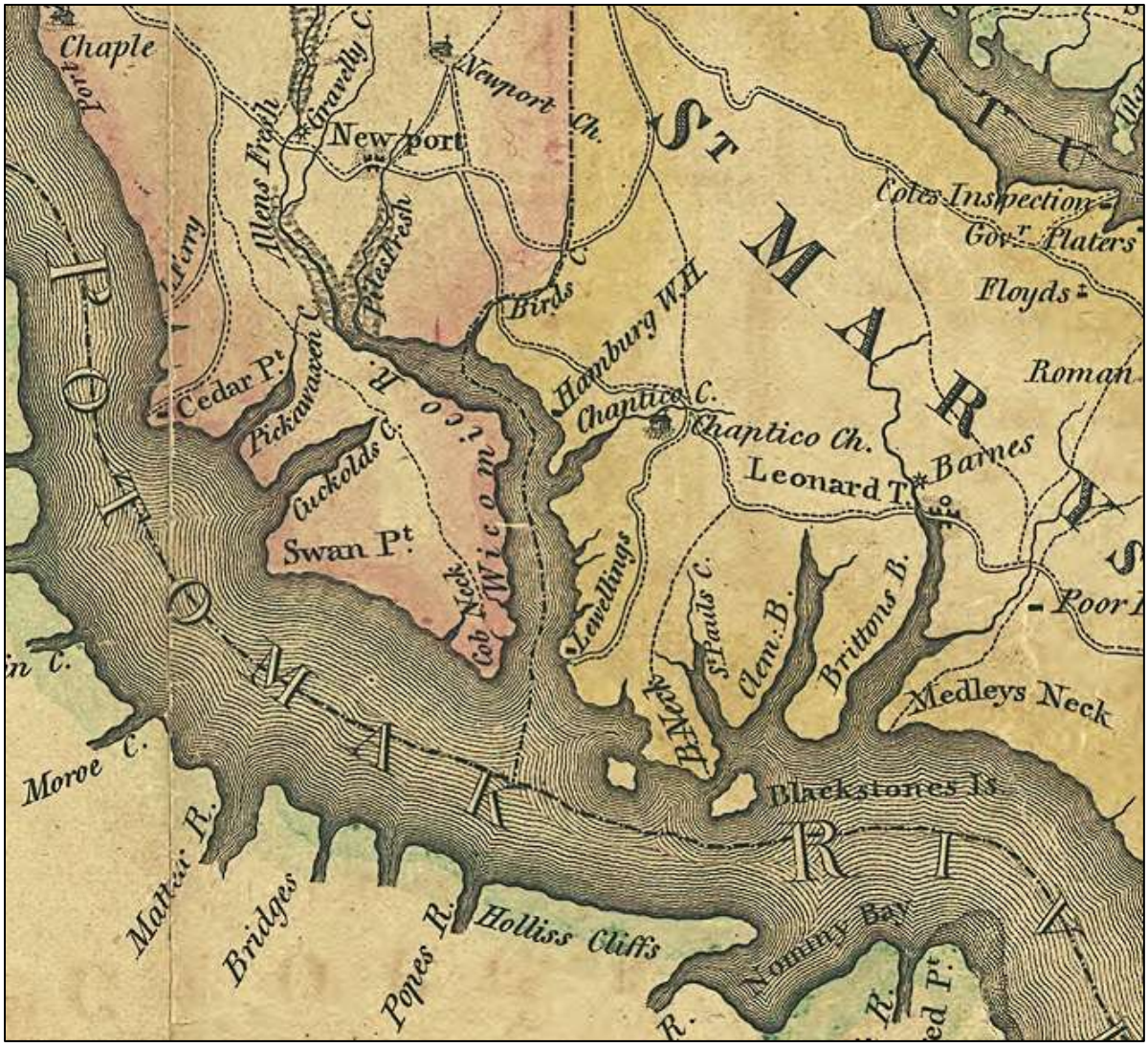

Figure 37. 1795 Dennis Griffith map showing Llewellin (Source: Library of Congress).

Llewellin played supporting roles for the patriot cause in St. Mary's County in the years during and leading up to the War for American Independence. He is described as being a member of the Committee of Safety and Correspondence for St. Mary's County in 1774 (Beitzell 1975:142). Committees of Safety and Correspondence were established throughout the North American colonies, which would later supersede colonial British government.

On June 13, 1778, the Maryland Council directed Captain Bennett Matthews to take the galley, called *The Independence*, "to Chaptico Warehouse on Wiccomico River and receive of Capt. John Thomas, who lives within a mile of it, the provisions that he has purchased, and call on your way down at the other landings on Patowmack, where he may have lodged any, and receive that also. If the Galley will, as we expect take more than Capt. Thomas has, of which you and he can judge, take so much of the contintental provisions at Llewellins Warehouse in the care of Mr. O'Neal, as will about make up your load" (Archives 21:134). The ship was then directed to bring the supplies to the head of the Elk River, on Maryland's Eastern shore – the closest port in Maryland Philadelphia. This was only days before the British forces completed their withdraw from Philadelphia. At this time General George Washington had

just left Valley Forge, ready to move against the British – ultimately clashing with the retreating British forces on June 28 at the Battle of Monmouth in New Jersey.

John Llewellin's will in 1785, then a widower, bequeathed his estate in St. Mary's County to be divided equally amongst his three sons, Charles, John, and Richard (SMC Wills JJ1/348). His son Richard died almost a year later. Llewellin's son John is described as living out of state in the 1785 will. Charles Llewellin is named the sole executor of the will, and it was he who likely later sold or made over the land.

According to Maryland Federal Direct Tax records, in 1798 the land is in the possession of Richard Jordan. It is unknown how Richard Jordan acquires the property, but it is most likely through family connections. John Llewellin was married to a woman by the name of Mary Jordan. It is possible that Richard Jordan is a member of the extended Llewellin family. The direct tax record describes the house, outbuildings, and tobacco warehouse once owned by John Llewellin. The house is said to be made of brick, measuring 28 feet square with at least 7 windows. Outbuildings include a kitchen, barn, and at least two non-descript outbuildings or outhouses (described as being decayed). Included in the description is "one half Llewellins warehouse lot", a grain house, kitchen, store house, and tobacco inspection house (Archives 729:3091).

Figure 38. 1797 C.E. Bohn map showing Llewellin (Source: Library of Congress).

Richard Jordan dies intestate sometime before June 30, 1810, when James Cook was named trustee of his estate. At the time, Richard Jordan's children were not yet of age to legally inherit the property. A suit was filed by Samuel Coombs against Cook, and the children of Richard Jordan, Ann and Richard, in the Chancery Court in 1832. The suit states that at the time of Jordan's death, he was indebted to Samuel Coombs. Cook was directed to sell the land to pay off outstanding debts. In September of that year Cook sold the property to Jeremiah Booth. Booth died intestate while owing money to the descendants of Richard Jordan. William D. Merrick was named trustee to again sell the land to recoup further money owed to the various estates. Merrick sold the land to Joseph Stone on March 21, 1827 (Archives 198 vol. 4:292-336).

Joseph Stone sold the land to Edward Heard in 1833, who later sold it to George Thomas in 1836. The deed from Stone to Heard describes the property as including a contiguous lot known as *Llewellins Lot* "on which is situated an old tobacco inspection house, store house, and brick dwelling house, formerly belonging to a certain Richard Jourdan" (SMCLR JR9/480). The Thomas family lived on the property for several generations. Oral history associated with the property suggests that shortly after Truman Thomas acquires the property in 1883, the original 18th century house burned to the ground. Truman Thomas replaced the house with the structure standing today known as Lower Brambly (MDIHP SM-108).

Brambly served as a plantation throughout most of its history. The property's first owner, Justinian Gerard, had 4 slaves and 2 servants listed in his probate inventory himself (Inventories & Accounts 10/223). Slavery was a prominent institution in the landscape for nearly 200 years. Following the emancipation of slaves in Maryland in 1864, many of the former unpaid laborers chose to remain at

the Brambly property, working as farm laborers and house maids or servants. Census records indicate that this number declined throughout the decades following emancipation. The first census after emancipation in 1870 lists 3 servants, 3 cooks, and 2 farm laborers at the house (US Census 1870). By 1880 there was 1 servant, 1 cook, and 3 farm laborers (US Census 1880). By 1900 only a cook and house servant remained at the Lower Brambly house (US Census 1900).

Among those working at Lower Brambly 1n 1880 were John and Catherine Butler. John is listed as being mulatto, or of mixed ancestry. John Butler is likely the descendant of Eleanor "Irish Nell" Butler and her husband Charles. Eleanor, and Irish indentured servant, and Charles, a slave, were once in servitude to Governor Thomas Notley, who lived at Notley Hall, directly adjacent to the Brambly property. Eleanor and Charles are listed in Notley's probate inventory of 1679, and also in the inventory of William Boarman in 1708. Many people with the surname Butler in St. Mary's County can trace their ancestry to Eleanor and Charles (Bauer, King & Strickland 2012).

Through the 19th and 20th century, occupation of the property transitioned from plantation to farmstead, and the home and outbuildings began to be slowly abandoned. Only two outbuildings remain today. The last barn to stand on the property was taken down just a few years ago. Today the property is owned by Nancy Wolfe, who is protecting the house and preserving the land from development through her Wicomico Valley Foundation. Wolfe and her brother Lawrence inherited the property from her father in 1987, who had bought the property from Anderson Dana Hodgdon, a member of the Thomas family, in 1955.

Previous Investigations

No formal survey has ever been conducted at the Lower Brambly property. In 1972, site 18ST51 was recorded by Barbara McMillan just beyond the property line on the Longview Beach subdivision (see Figure 39 for original location and revised extents). The site is identified only as an unidentified prehistoric lithic scatter. McMillan provides no maps of the site but describes it as being located along a strip of beach approximately 1000 feet north of Mill Creek and ½ mile south of Bramleigh Creek (McMillan 1972:148). McMillan's site form recorded with the Maryland Historical Trust goes into further detail, describing the site setting as a 5 to 10 foot wide strip of beach about 30 feet long. McMillan only investigated the beach, and described the field directly adjacent as being too grassy to visibly observe any artifacts. Of the artifacts recovered by McMillan, no diagnostics are recorded. Only 10 quartzite flakes and 6 fire cracked rocks were recovered. Due to the proximity of 18ST51 to the Lower Brambly property, the site was expanded to include new spatial data as part of this project.

In the 1880s, when looking for and identifying shell middens in the lower Potomac River, including the Wicomico River, Elmer R. Reynolds makes no mention of a shell midden at the Lower Brambly property. He does however describe at least 2 sites near Bushwood Wharf, located just south of Longview Beach. Reynolds describes a substantial shell field on what he calls the Plowden estate of St. Clement's Manor (Reynolds 1884; Reynolds 1889).

Though not formally surveyed, the Lower Brambly property has been visited by archaeologists in the recent past. The site was visited by Dr. Julia King and Ed Chaney of Jefferson Patterson Park and Museum in the early 2000's at the invitation of Nancy Wolfe. It was King and Chaney who impressed upon Ms. Wolfe that the property was the location of some sort of Native American village due to the presence of a thick layer of oyster shell and scattered fire cracked rocks. The Wolfe family had long suspected that their property was the site of either a Native American village or some more ancient natural shell bed. No doubt, the evidence of the site at Lower Brambly would've been visible to people for many generations.

Figure 39. Lower Brambly Site Locations.

Figure 40. Lower Brambly gravestone with deaths-head motif (Courtesy Ed Chaney, Maryland Archaeological Conservation Lab).

King and Chaney were also invited by Ms. Wolfe to investigate a curious gravestone (Figures 40 & 41) located along the banks of the Wicomico near the 19th century Lower Brambly house. The gravestone once lay upturned as a doorstep in front of the house. It is unknown for certain where the gravestone originally lay, but Ms. Wolfe states that there used to be a cemetery at the northwestern end of the property at the confluence of Bramleigh Creek and the Wicomico River. This cemetery is rumored to be completely eroded away. Ms. Wolfe also informs that while some graves were eroding into the Wicomcio, archaeologist Michael Humphries removed the remains and transferred them to the Smithsonian in Washington, DC. The whereabouts of the remains have not been verified. No writing on the gravestone is discernable at this time, having been greatly weathered by the waves of the Wicomico as they lap upon the shore. At high tide the gravestone is completely inaccessible. Ms. Wolfe and Ed Chaney of the Maryland Archaeological Conservation Lab inspected the stone in the early 2000's and were able to discern the surname Briscoe and a date of 1759. It is unknown if the date is the year of death or year of birth. It should be of note that John Llewellin's daughter Mary married a man named John Briscoe in 1772. It is likely the Briscoe gravestone is a member of the extended Llewellin family.

Artifact Distributions – Lower Brambly 1 (Longview Beach, 18ST51)

Using artifact spatial data gathered during the surface survey, presence/absence distribution maps were generated for Fields 1 and 2. Though the site was investigated using a systematic surface survey with transects spaced at 100-foot intervals, overall ground visibility was at such an extent that interesting patterns could still be discerned. The following discussion of distributions should therefore be taken as a generalization of the overall survey area.

Figure 41. Lower Brambly gravestone inscription, 18ST51 (Courtesy Ed Chaney, Maryland Archaeological Conservation Lab).

A good indicator of historic or prehistoric components at this site is best depicted through mapping clusters of brick and shell (Figure 42). Distributions of red brick is indicative of a number of individual structures throughout the property (possibly 17 in total). The largest concentration of red brick was observed near the center of Field 1 with scattered clusters throughout both Field 1 and Field 2. Chronology of the different clusters is better established in the distributions of diagnostic ceramic and glass artifacts (Figures 43-53). These distributions were further used to define areas of prehistoric, colonial, and post-colonial concentrations (Figure 54).

Figure 42. Location of brick and shell middens - Lower Brambly 1, 18ST51.

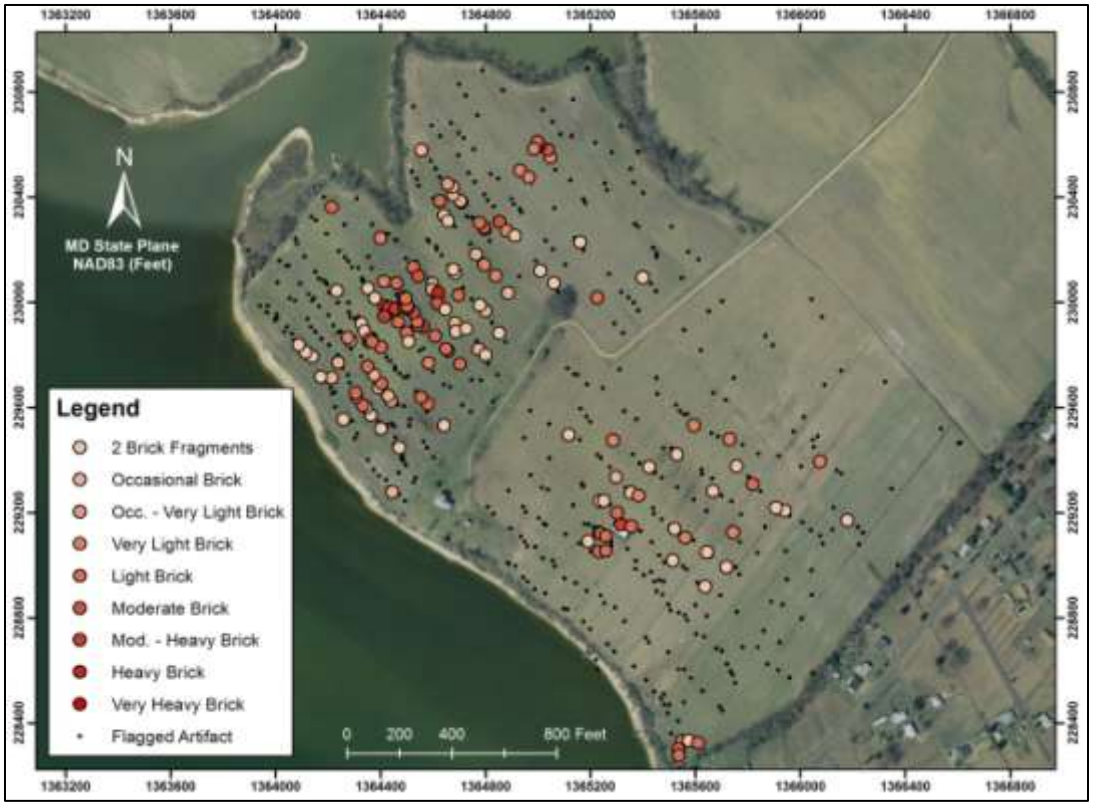

Figure 43. Distribution of brick - Lower Brambly 1, 18ST51.

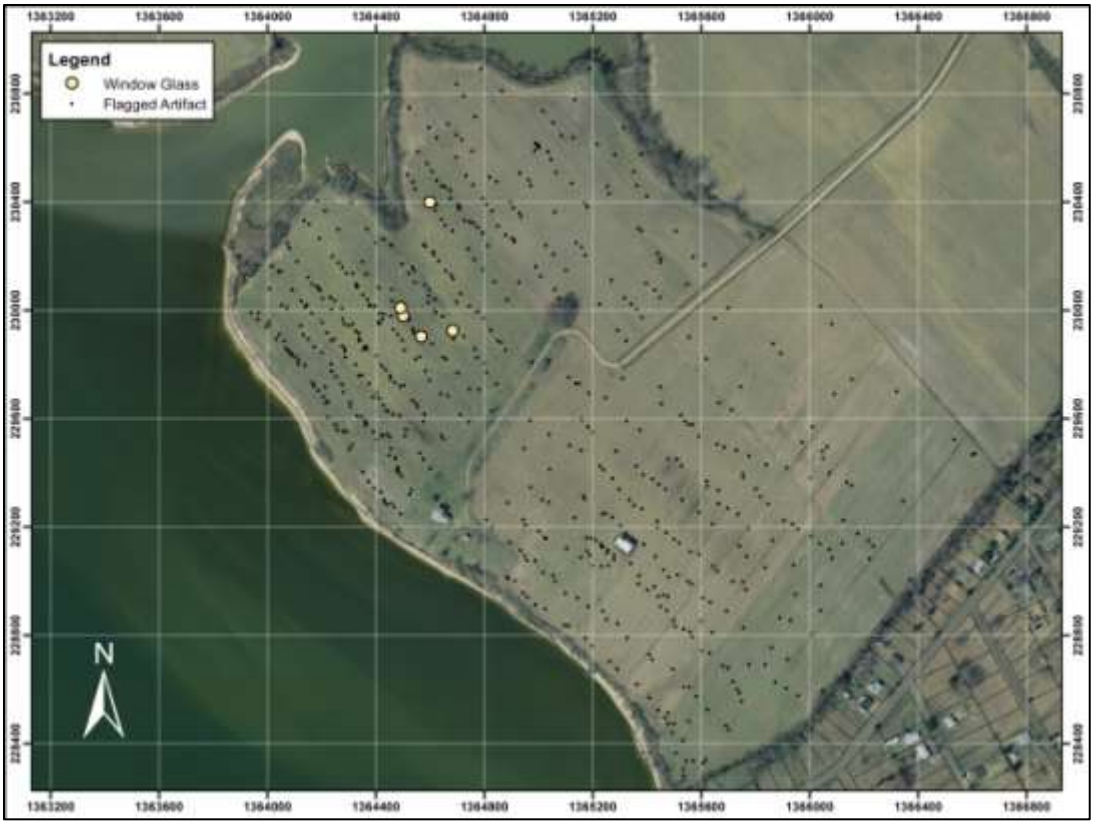

Figure 44. Distribution of window glass - Lower Brambly 1, 18ST51.

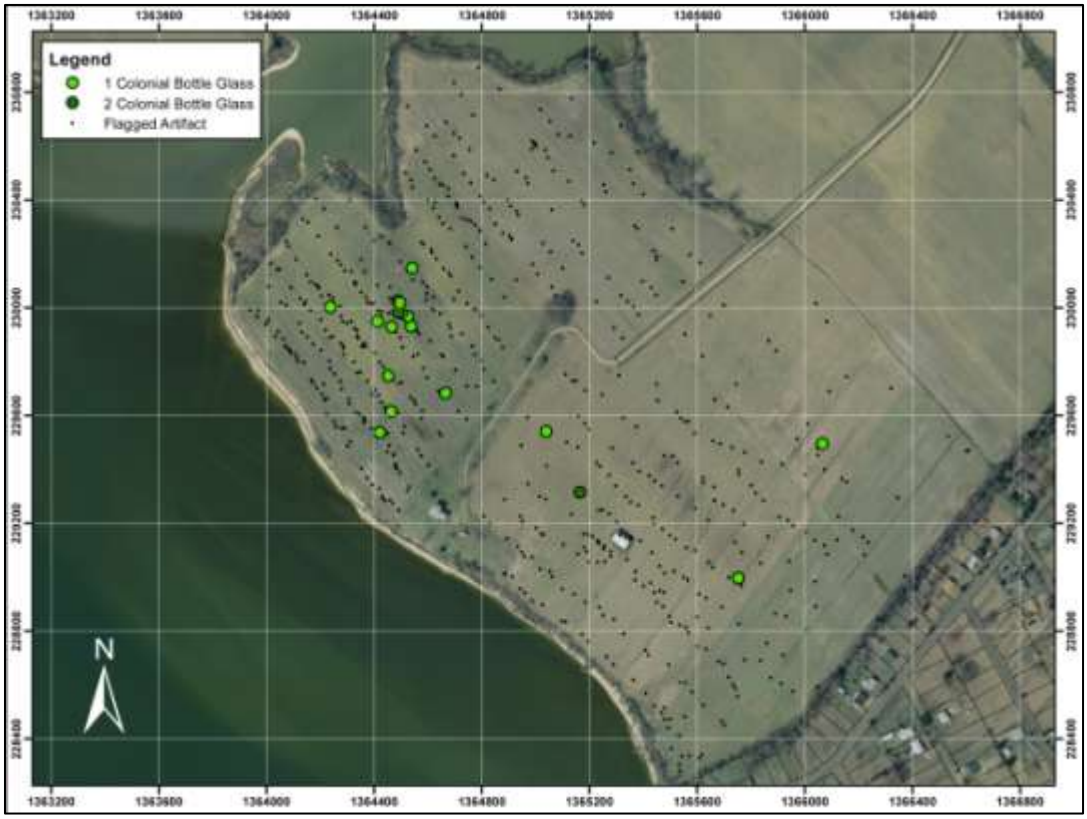

Figure 45. Distribution of colonial bottle glass - Lower Brambly 1, 18ST51.

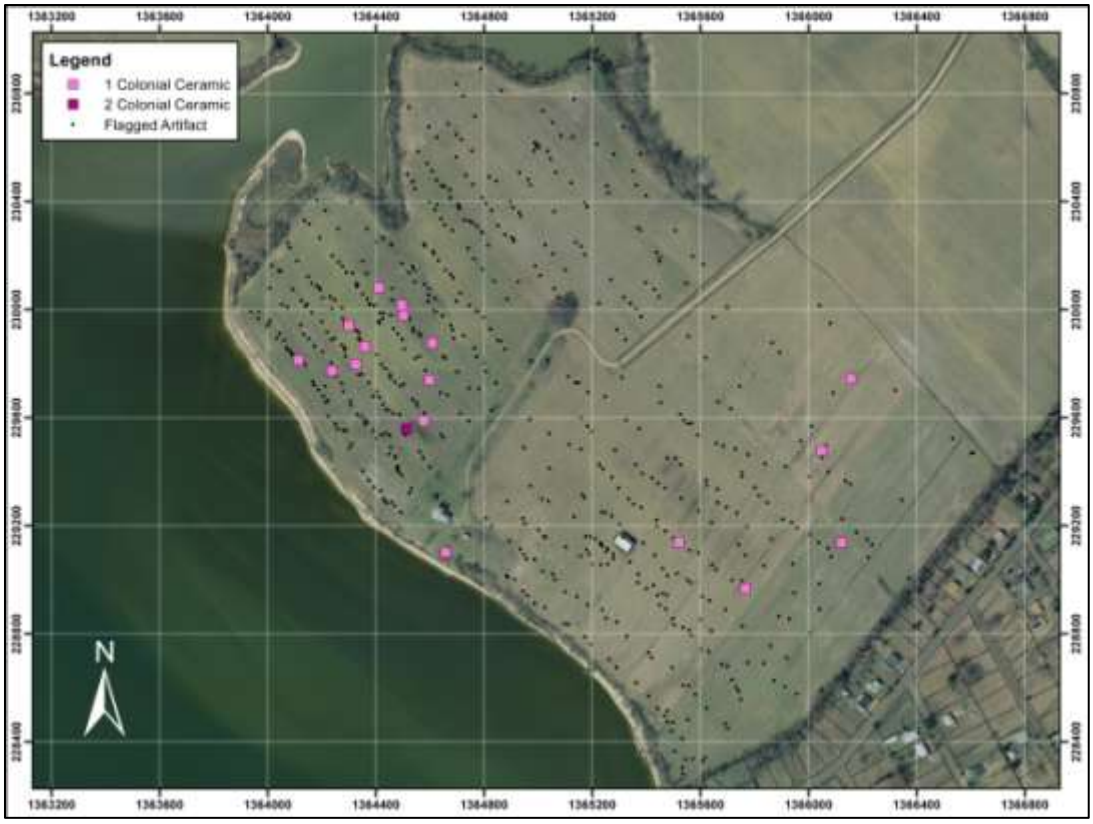

Figure 46. Distribution of colonial ceramics - Lower Brambly 1, 18ST51.

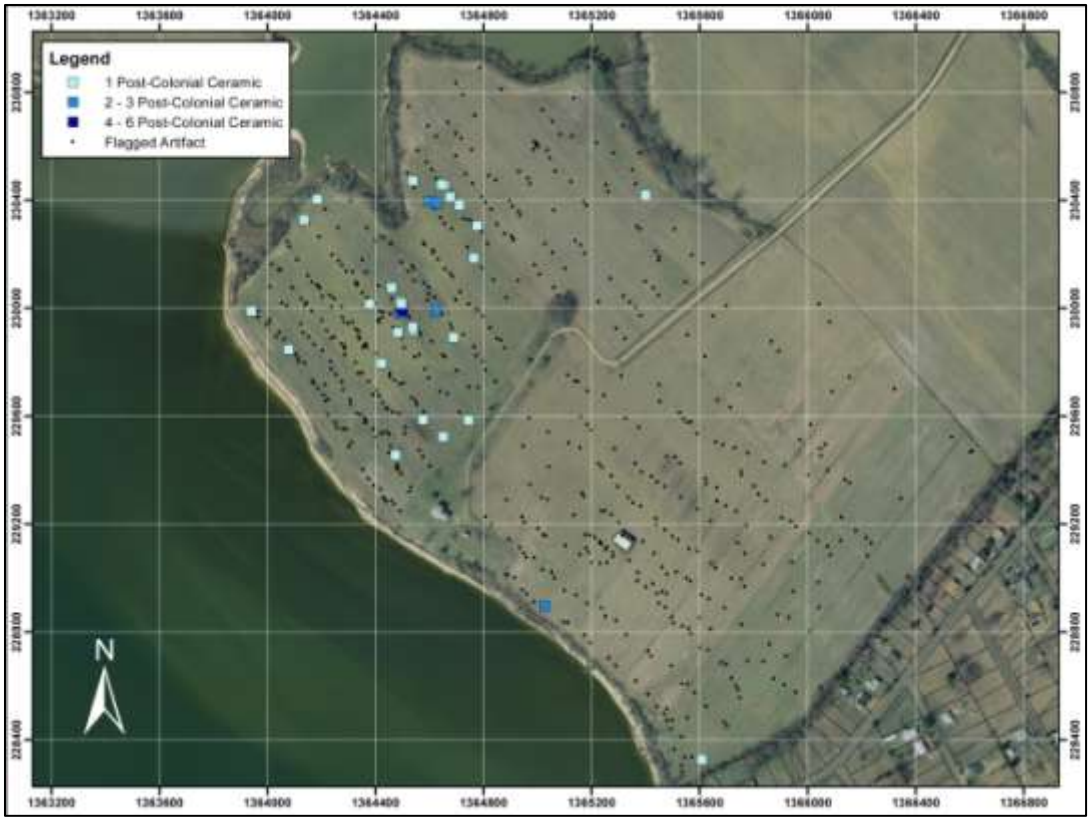

Figure 47. Distribution of post-colonial ceramics - Lower Brambly 1, 18ST51.

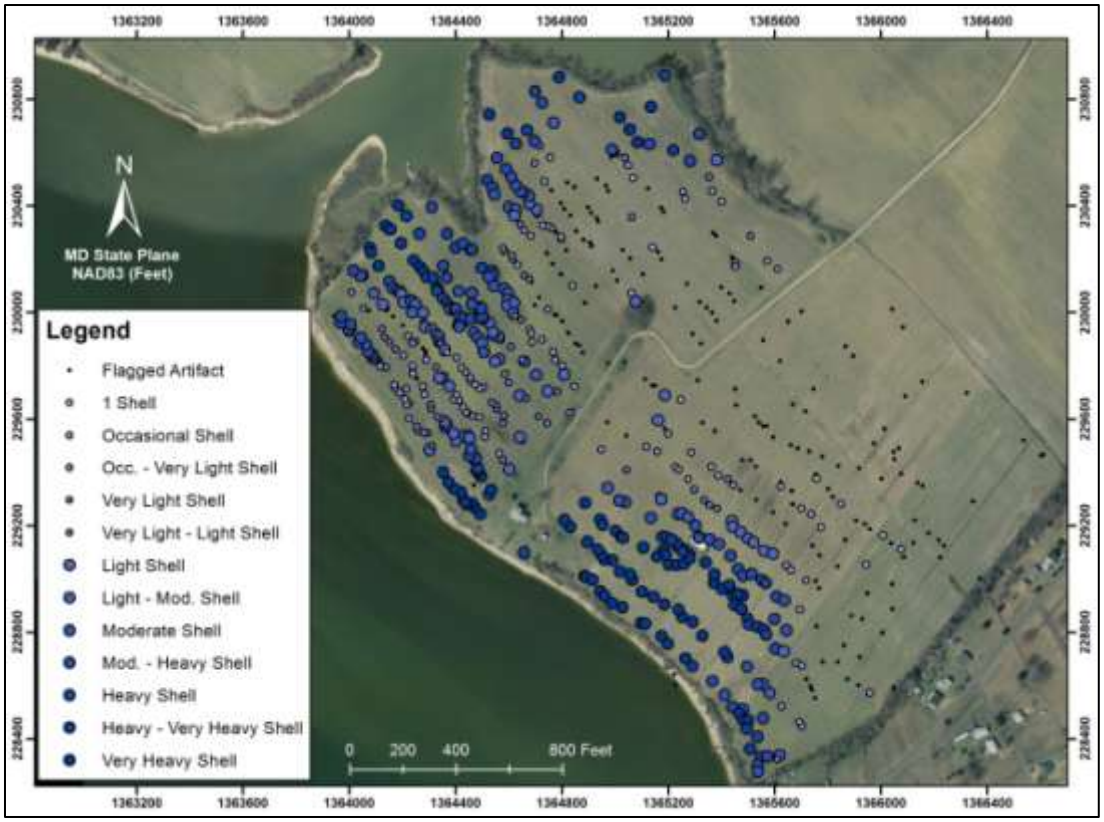

Figure 48. Distribution of oyster shell - Lower Brambly 1, 18ST51.

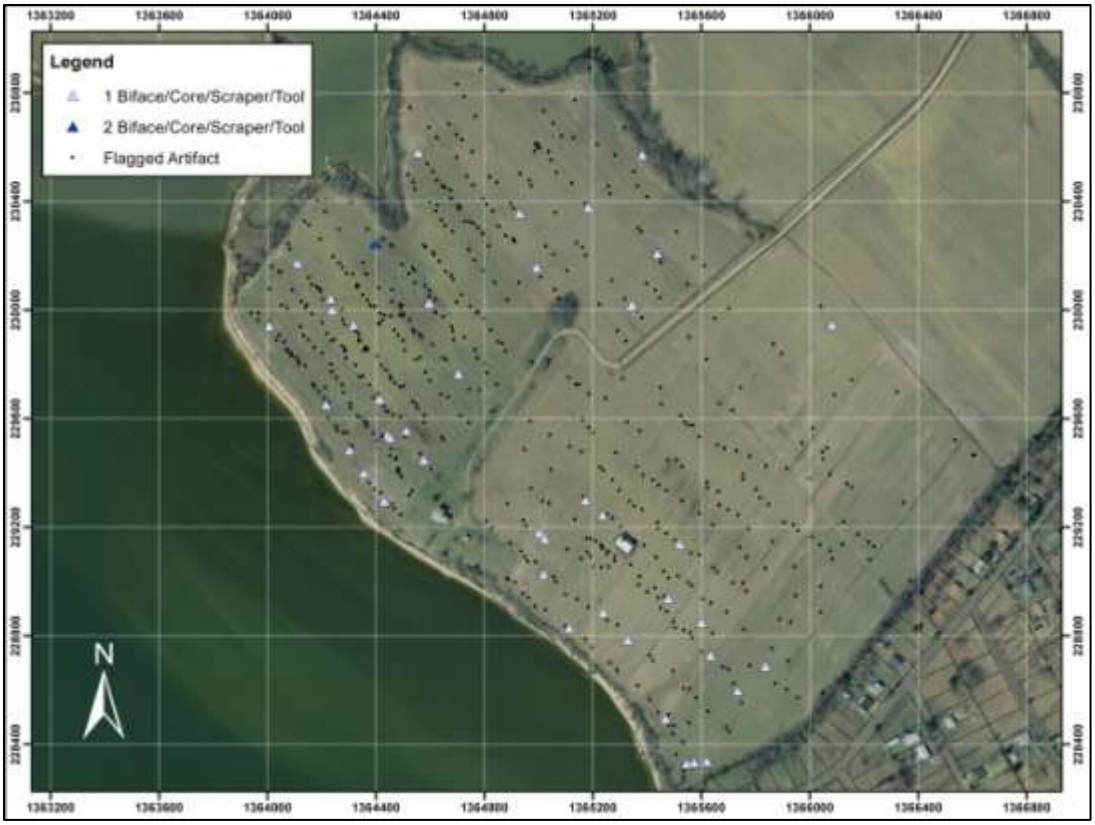

Figure 49. Distribution of bifaces, cores, and tools - Lower Brambly 1, 18ST51.

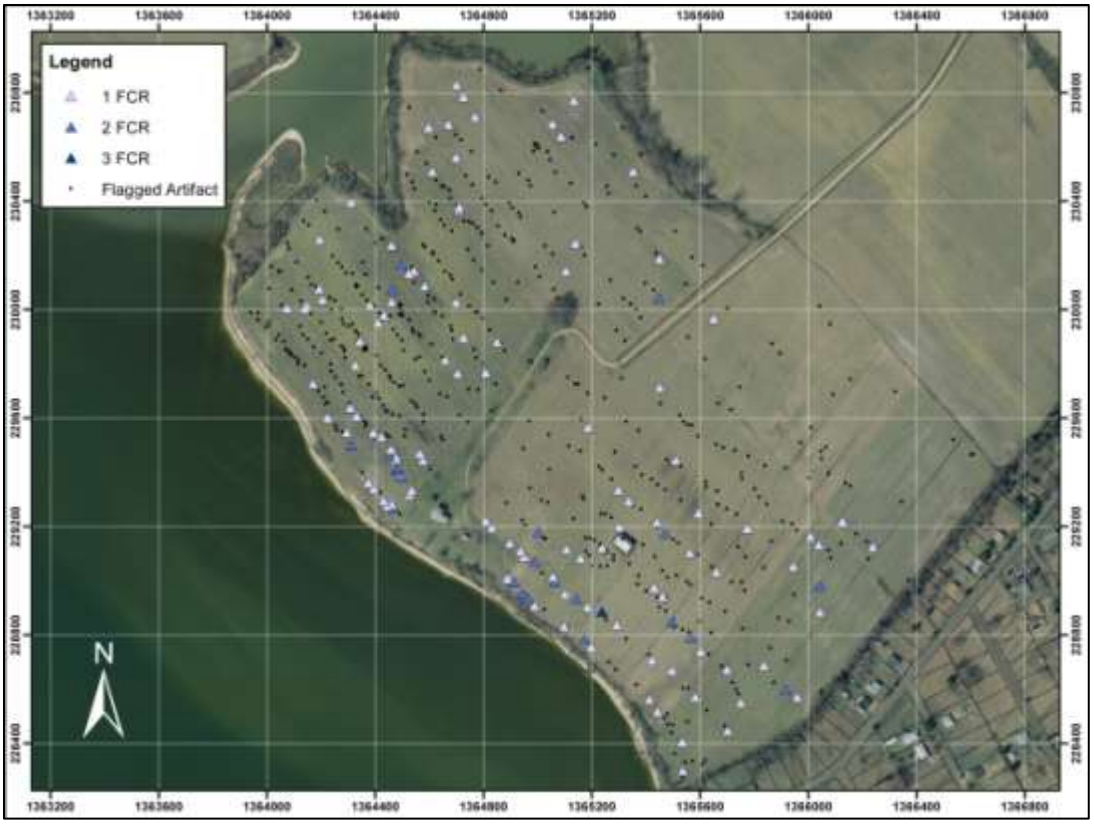

Figure 50. Distribution of fire cracked rock - Lower Brambly 1, 18ST51.

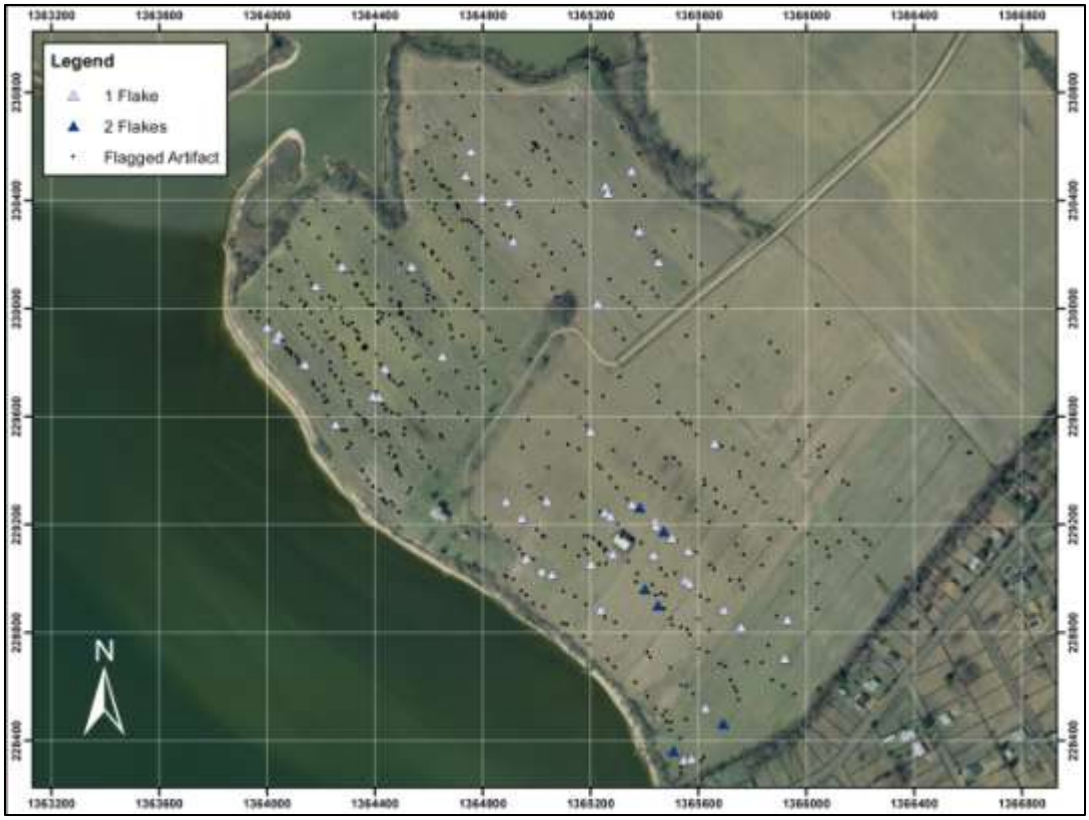

Figure 51. Distribution of flakes - Lower Brambly 1, 18ST51.

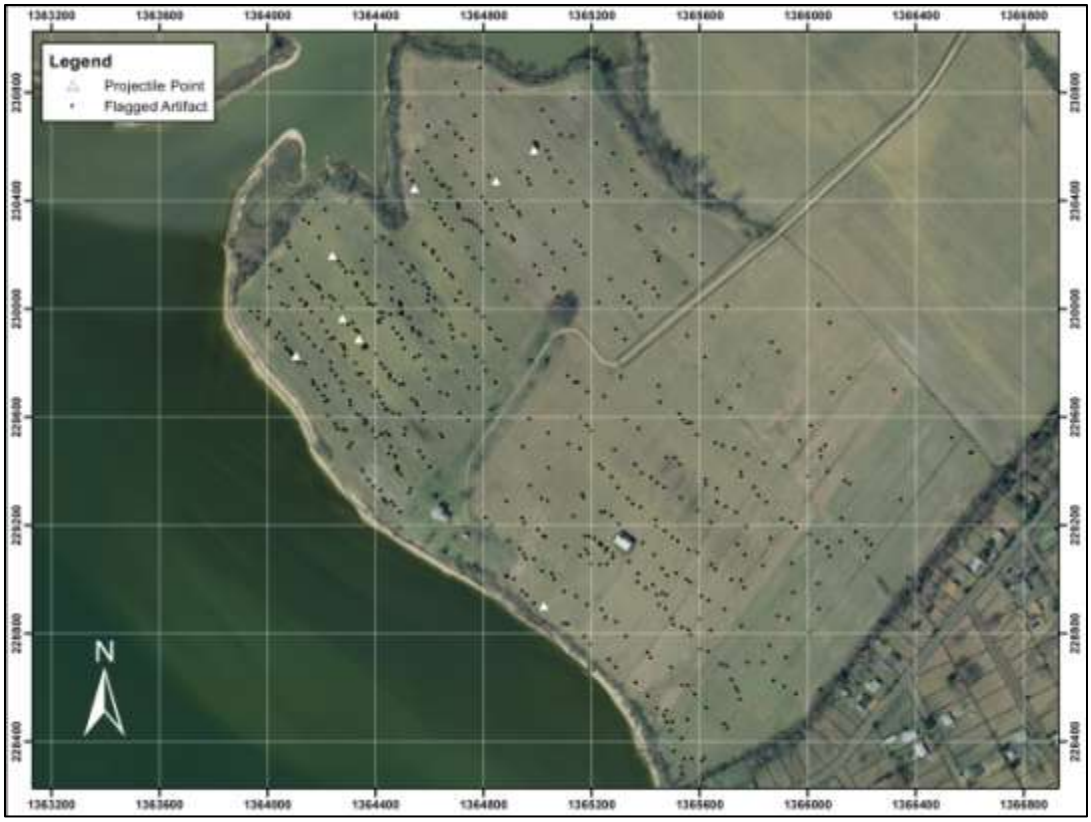

Figure 52. Distribution of projectile points - Lower Brambly 1, 18ST51.

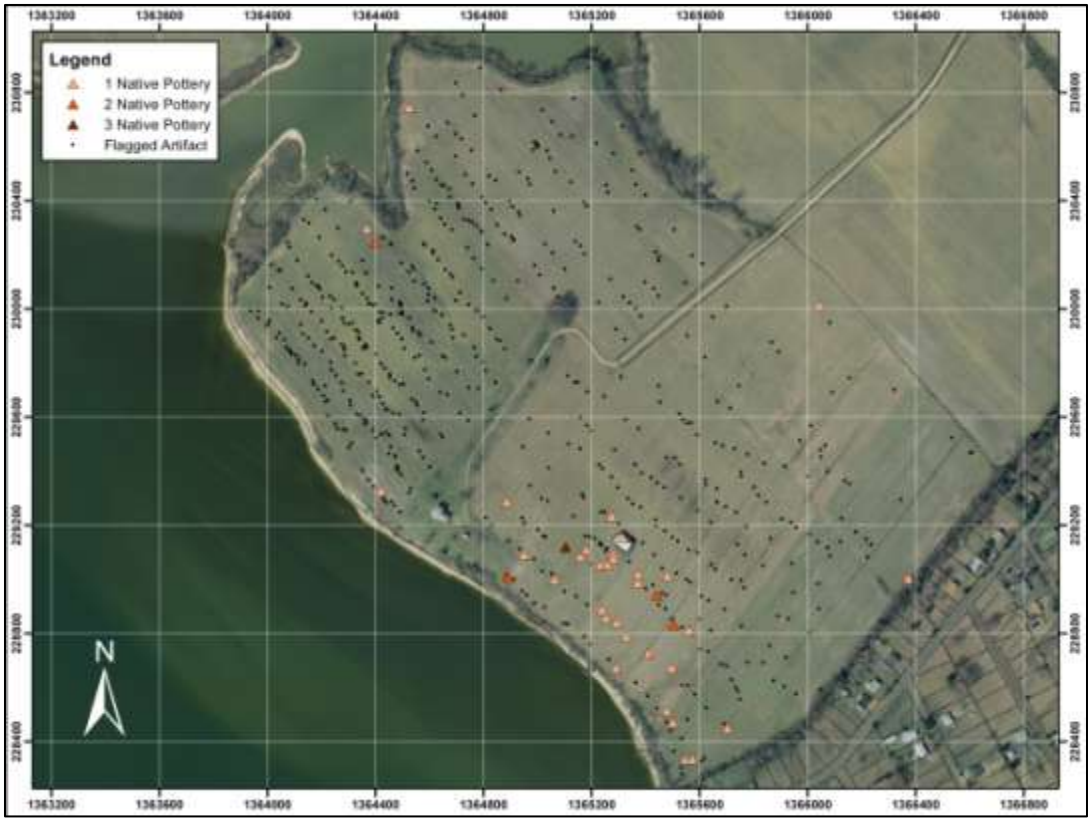

Figure 53. Distribution of native ceramics - Lower Brambly 1, 18ST51.

Figure 54. Chronological distribution areas - Lower Brambly 1, 18ST51.

The distributions of historical material observed in Field 1 will be discussed first. Before analyzing the distributions of domestic artifacts observed throughout the site, a closer examination of the architectural materials will be undertaken. Due to the high numbers of brick fragments observed throughout Field 1, a ranked system of observation was implemented in the field to later identify where the highest concentrations are located. Where brick was observed flags were roughly placed at well spaced intervals so as to not be burdened with the number of observations to be taken. Brick fragments were described as being fragments of occasional, very light, light, moderate, heavy, or very heavy scatters. Because of the subjectivity of this method of recording, all recording was made by a single observer. The same system was implemented in regards to the distributions of oyster shell, to be discussed later.

A widespread distribution of red brick fragments was observed in Field 1, with an area of notable high concentration compared to the rest of the field (see Figure 43). The distribution of window glass (see Figure 44) overlays quite well with this core area of red brick concentration. No nail fragments were observed in this area, possibly due to sampling strategy.

The most dense area of red brick in Field 1 corresponds with the highest concentrations of olive green colored colonial-era bottle glass (see Figure 45). Later 19th-century glass is found in two main clusters in Field 1, including in the same area as the colonial-era glass. This included aqua-colored, manganese, light blue, light green, brown, colorless, and true blue glass fragments – common types found throughout the 19th-century. It is notable that the highest concentrations of later glass is found in a secondary concentration away from the core concentration of red brick.

Colonial ceramics have a much wider distribution (see Figure 46), but centered around the core concentrations of red brick and window glass. Colonial ceramics observed includes Staffordshire

slipware, tin-glazed earthenware, Buckley, English brown stoneware, white salt-glazed stoneware, Rhenish blue and gray salt-glazed stoneware, and creamware.

Because of the low overall sample size and wide distribution area of colonial ceramics, it is not possible at this time to identify areas of differing function between utilitarian wares and food and beverage consumption wares. There is, however a clear core area of activity within the large red brick cluster in Field 1, indicating at the very least the location of a substantial primary structure.

Post-colonial ceramics (see Figure 47) were observed in high concentrations in the core area of brick and window glass. Post-colonial wares in this core area consisted of pearlware, transfer printed white refined earthenware, and North American gray salt-glazed stoneware. A secondary cluster of post-colonial ceramics was also observed approximately 300 feet northeast of the core area, which also corresponds to areas of 19th-century glass will be discussed later.

Figure 55. 1877 US Coast Survey map - Brambly (Source: http://historicalcharts.noaa.gov/)

The concentration of colonial artifacts clustered with and in close proximity to later 19th-century ceramics and glass indicates an area occupied for an extended period of time. This is very likely the house site occupied by John Llewellin throughout much of the 18th-century. The heavy concentration of brick in this area and the absence of any nails observed during the survey, suggests a house built primarily of brick rather than an earthfast of wooden framed building. The 1798 Federal Direct Tax description of a brick house seems to correspond well with this area. US Coast Survey maps from 1868 and 1877 (surveyed in the 1860s) depict at least five different structures in this area (Figure 55).

The secondary cluster of post-colonial ceramics and 19th-century glass in Field 1, is located near the head of a small inlet into Bramleigh Creek. These concentrations correspond with a concentration of red brick, though of notably less density than the probably 18th-century structure. The most striking difference between the 18th/19th-century core area and the secondary cluster is in the glass. Higher concentrations of 19th-century glass are found in the secondary cluster, which also lacks earlier colonial bottle glass. This secondary cluster also contains a cluster of true blue glass, which the 18th/19th-century core area does not.

This secondary artifact cluster likely represents some sort of wood framed building, as noted by the lower concentrations of red brick fragments. A single piece of window glass was also observed within this cluster. This structure likely stood contemporarily with the earlier structure for at least some time during the 19th-century. This later structure does not appear on the US Coast Survey maps, which were surveyed in the 1860s. Oral tradition dictates that the earlier structure burned down sometime in the early 1880s, but the fire does not appear to have affected this later wood framed structure.

According to aerial photos, this later structure appears to have still been standing in 1952 (Figure 56), though likely having been abandoned earlier. By 1960 no trace of this structure is evident in aerial photos (Figure 57). It is likely this building was a tenant house, first constructed sometime in the 1870s and abandoned sometime in the early 20th century.

An isolated cluster of red brick is found near the most northeastern edge of Field 1. No other diagnostic materials from this area were observed making it difficult to date. It is, however depicted on the 1868 and 1877 US Coast survey maps. Whatever building stood there appears to be some type of service structure, like a barn, and not a domestic structure.

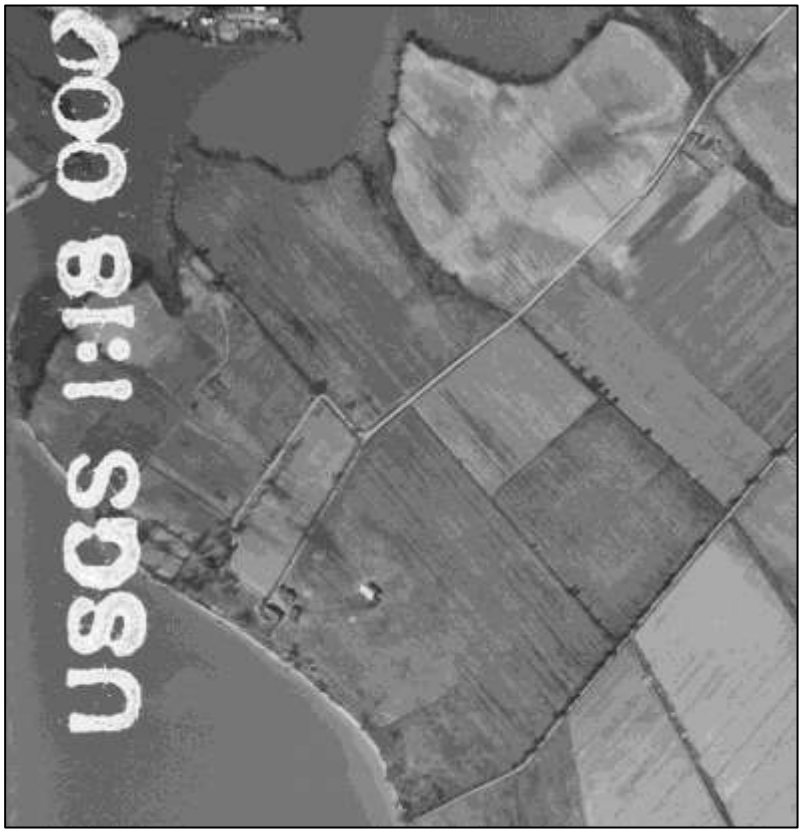

Figure 56. 1952 aerial photo - Brambly (Source: http://earthexplorer.usgs.gov/)

The red brick scatter in Field 2 is of a lower density than what was observed in Field 1. Most of the red brick in Field 2 is spread over a large area. There are two notable areas of concentration, one centered on the location of a barn (removed recently) at the very southern most corner of the property. The brick observed in the former location of the barn is most definitely associated with that structure. The nature of the remaining brick fragments throughout Field 2 becomes more apparent when examining the distributions of other artifacts, as well as historical maps and aerial photos.

Figure 57. 1960 aerial photo – Brambly (Source: http://earthexplorer.usgs.gov/)

Very few Post-Colonial ceramics were found in Field 2, consisting of only 4 transfer printed whiteware sherds. Three sherds were observed approximately 500 feet southeast of the Lower Brambly house. The 1952 aerial photo reveal the location of a complex of farm related buildings such as barns, sheds, and animal enclosures. The location of buildings here is also supported by Ms. Wolfe and her earliest memories of the property. A single sherd of transfer printed whiteware was found amongst the brick concentration at the southern-most corner of the property. Ms. Wolfe informed that she was always told that this area was the location of a "customs house." US Coast Survey maps indicate a small lot with a building at this very location. Although hard to say at this moment, this may very well be what was referred to as Llewellin's Lot in the historical documentation, which had a tobacco inspection house and storehouse that was still

standing in 1836. The accuracy of Ms. Wolfe's recollection of the oral history of the property when compared to the archaeological and historical record cannot be overstated.

A sparse area of colonial ceramics was observed east of the former location of the barn. Among the ceramic types observed were English Brown stoneware, finely-combed Staffordshire slipware, white salt-glazed stoneware, and dry-bodied Jasperware. Colonial bottle glass was observed in conjunction with some of the ceramics in this area, at least one of which appeared to be case bottle glass. An isolated area with colonial bottle glass was also observed northwest of the former location of the barn. No other materials appear associated with them. Given the low sample of colonial artifacts observed in Field 2, it is hard to interpret the function of these occupied areas. It is likely, however, that this is the location of slave or tenant quarters that were present only during 18th-century occupation of the property overall. The lack of refined earthenware like the creamware found in Field 1 and the overall lower density of artifacts may suggest that the 18th-century occupants of Field 2 were of a lower social status. This helps support the notion that Field 2 was the location of slave, tenant, or other laborer activities.

Native-related artifacts span a vast area of the Lower Brambly property. The extent of Native occupation of the site is best defined by the vast shell midden. In total, oyster shell is scattered around about 50 acres of the approximately 92 acre-large area of Fields 1 and 2. Some of the shell may be associated with the later historic occupations, but it is well overshadowed by the large amounts deposited during the prehistoric occupation of the property.

Shell is most heavily concentrated in three overlapping areas – in the south, north, and northwest (see Figure 48). The smallest area is the concentration in the northwest corner of the property. It is possible that this area is an extension of the north shell midden. This is the approximate location of the cemetery mentioned by Ms. Wolfe. No gravestones or depressions were evident in this area during the survey.

The north shell midden ebbs and flows with the shoreline along Bramleigh Creek – meandering around the curve of the land for approximately 3,250 feet and extending from the shore approximately 500 feet. The total area of the North shell midden is about 15.5 acres.

The south shell midden is semi-circular in shape, running along the shore of the Wicomico River. The shell midden begins approximately 500 feet northwest of the Lower Brambly house and extends at least 3,800 feet up to the boundary line with the Longview Beach subdivision. The furthest the midden extends from the shore is 650 feet. The total area for the south shell midden is approximately 22 acres.

There are notable differences in the distribution of Native associated artifacts observed from the north and south shell middens. Distributions of the types of lithic materials (see Figures 49-52) throughout the site correspond to areas of shell – but with a broader range and with no clear divisions. Bifaces, cores, and tools are found throughout the site area, with the exception of the easternmost area of Field 2; as is the case with the distribution of shell. Fire cracked rock and flake distributions have similar extents as bifaces, cores, and tools. However, there appear to be higher concentration associated with the area around the south shell midden area.

Most interesting is the distribution of projectile points. All but two of the nine observed projectile points were found to be associated with the north shell midden. The points found associated with the north midden have a range of dates from the Middle Archaic up to possibly the Late Woodland periods. The two projectile points associated with the south shell midden included a Middle Archaic Guilford-type point and a Late Woodland Levanna-type point.

As with projectile points, there exists a dichotomy between the north and south middens in regards to the distribution of Native American ceramics (see Figure 53). Of the 42 recorded native ceramic sherds, only 4 were associated with the north shell midden. A little over 90% (n=38) of the native ceramics recorded were found associated with the south shell midden. The distribution of these ceramics in this area overlays in the same semi-circular pattern as the heavy oyster shell concentrations. A breakdown of the ceramic types will be discussed in the next section of this report.

Results – Lower Brambly 1 (Longview Beach, 18ST51)

A total of 656 non-shell and non-brick artifacts were observed at the Lower Brambly 1 (18ST51) site. Artifacts included lithics, native ceramics, colonial ceramics, post-colonial ceramics, bottle glass, architectural artifacts, and various small finds.

Lithic material (n=371) accounted for almost 57% of the entire recorded assemblage (Table 21). This included 8 projectile points. Projectile points included 1 Guilford, 1 Otter Creek, 1 Susquehanna Broadspear, 1 possible Savannah River, 1 possible Piscataway, 2 Levanna, 1 triangular point, possibly Madison or Brewerton Eared Triangle, and 1 unidentified projectile point tip. All but 2 of the points were found in the area of the north shell midden.

Lithic	
Projectile Point	9
Biface/Tool	29
Core	22
Flake - Tertiary	42
Flake - Secondary	14
Flake - Primary	8
Shatter	89
Fire Cracked Rock	158
TOTAL	**371**

Table 21. Lithic artifacts recorded from surface survey – Lower Brambly 1, 18ST51.

Guilford points are Middle Archaic point type, possibly dating from 5250-3800 BC (Coe 1964; Steponaitis 1980; McAvoy & McAvoy 1997). This point was found within the south shell midden just northwest of the Lower Brambly house. This point is the oldest artifact found in the area of the south shell midden. Otter Creek points are also a Middle Archaic point type, but it is also found in the Late Archaic period as well. Interpreted date ranges for Otter Creek points are from 5475- 2850 BC, with a core range between 4850-3800 BC (Kinsey 1972; Steponaitis 1980; Funk 1993; Dent 1995). The Otter Creek point was found in the area of the north shell midden.

A few of the points date to the Late Archaic period, such as the Susquehanna Broadspear, Savannah River, and Piscataway points. Savannah River points are found in contexts in the Mid-Atlantic dating between 3300-2050 BC (Custer 1996). In the Patuxent River drainage radiocarbon dates place the point type between 2450-2050 BC, while in Montgomery County it has been found in contexts dating to 2130-2340 BC (Steponaitis 1980; Fiedel, Bedell & LeeDecker 2005).

Susquehanna Broadspear is considered a transitional point type with initial dates in the Late Archaic, and possibly continuing into the Early Woodland period. It is suggested that this point type could have a chronological range from 2000-800 BC (Justice 1987). Radiocarbon dating , however, supports the notion that this point type ranges in date from 2025-1450 BC and not going into the Early Woodland period (Dinacauze 1968; Kinsey 1972; Funk 1993; Custer 1996).

Piscataway points are considered both a Late Archaic and Early Woodland point type. It shares many morphological similarities to the Rossville type point, which is found in Early and Middle Woodland contexts. The points similarity to the Rossville type makes dating these points problematic. Radiocarbon dates from the Pig Point site in Anne Arundel County suggests a range as recent as 350 BC, as well as being recovered in contexts with Otter Creek type points (Luckenbach et al. 2010).

A single triangular rhyolite point was observed, but it is unknown if it is the Madison type (Late Woodland) or Brewerton Eared Triangle (Late Archaic). Two Levanna type triangular points were found in both the north and south shell middens. The Levanna type is a Late Woodland point dating between 600 and 1350 AD (Ritchie 1971; Kinsey 1972; Steponaitis 1980; Justice 1987). It is suggested that this point type could also date into the contact period. A Levanna point found at the Heater's Island site (1699-1712) appears to be made of English flint, which would not have been available in this area until after permanent English colonization began in the early 17th-century.

Other lithic material observed consisted bifaces and tools (n=29), cores (n=22), flakes (n=64), shatter (n=89), and fire cracked rock (n=158). Fire cracked rocks, mostly quartzite, accounted for nearly 43% of the entire lithic assemblage, and about 24% of the total artifact assemblage (not including brick and shell). Tertiary flakes (n=42) accounted for nearly 66% of all flakes recorded, while secondary flakes (n=14) accounted for 22%, and primary flakes (n=8) accounted for about 12% of all flakes. Most flakes were of quartz. A total of 89 fragments of shatter or other debitage were also observed.

Early Woodland	
Accokeek	2
Popes Creek	2
Accokeek or Popes Creek	1
Total Early Woodland	*5*
Middle Woodland	
Possible Mockley	4
Total Middle Woodland	*4*
Late Woodland	
Townsend	15
Possible Townsend	4
Townsend or Yeocomico	1
Potomac Creek	1
Moyaone	2
Potomac Creek or Moyaone	2
Total Late Woodland	*25*
Unidentified	
Shell tempered	7
Sand/Quartz tempered	1
Total Unidentified	*8*
TOTAL NATIVE CERAMICS	**42**

Table 22. Native ceramics recorded from surface survey – Lower Brambly 1, 18ST51.

Native ceramics (n=42) makes up just 6.5% of the entire recorded assemblage (Table 22). Ceramic types date from Early Woodland to Late Woodland/Contact periods. Given the survey methods employed at this site, the number of ceramics observed on the surface of the ground is remarkable. Early Woodland ceramics (n=5) make up 12% of the native ceramic assemblage. Middle Woodland ceramics (n=4) account for 9.5%, while Late Woodland ceramics comprise 59.5% of the assemblage. Some sherds were too small to be more accurately identified other than by temper. Unidentified shell tempered, and unidentified sand/quartz tempered ceramics total to about 19% of the native ceramics.

Early Woodland ceramics included 2 Accokeek and 2 Popes Creek type sherds. An additional sherd was identified as either Accokeek or Popes Creek. Accokeek is a sand/quartz tempered ceramic dating from about 900-300 BC (Jefpat 2012). The Accokeek sherds observed at the Lower Brambly 1 site were plain and undecorated, as is usually the case for this ware type. Popes Creek is another sand/quartz tempered ceramic, with a date range from 500 BC to 300 AD (ibid). The 2 Popes Creek sherds recorded at the site contained net-impressed surface treatment.

Shell tempered wares dominated the entire native ceramic assemblage, accounting for nearly 74% of all wares. Mockley, a shell tempered ware from the Middle Woodland period, dates from about 200 to 900 AD. Of the 4 possible Mockley sherds recorded, 3 were net or fabric impressed, while 1 was plain. Other shell tempered wares included Townsend and possible Yeocomico wares.

Townsend ceramics were the single largest ceramic type identified in the native assemblage. A total of 19 Townsend and possible Townsend sherds, 45% of the assemblage, were recorded. A single sherd was identified as either Townsend or Yeocomico. Townsend is a Late Woodland and early contact period ceramic dating from 950 to 1600 AD. It is probable that this ceramic type dates further into the 17th-century, as inferred at the Choptico Indian Town site (18ST153), located less than 4.5 miles north

Lower Brambly property (King, Trussell & Strickland 2014). Townsend wares may have an terminal chronology more similar to Yeocomico wares, which have been radiocarbon dated to around 1700 (Waselkov 1982). The Townsend wares recovered from the site consisted of both plain, cord marked, and incised (sometimes called Rappahannock incised) sherds.

Other minority Late Woodland ceramics include 2 Moyaone, and 2 Potomac or Moyaone sherds. These sherds consisted of both plain and cord marked wares. Moyaone ceramics, a type often associated with the Potomac Creek tradition (Potter 1993:123). Moyaone pottery was manufactured during the Late Woodland, generally 1300 through 1650 AD (although recent evidence suggests Moyaone ceramics were produced through the end of the 17th century; see Harmon [1999] and Flick et al. [2012]). Potomac Creek ceramics were produced from about 1300 AD through the 17th century (Potter 1993:124) and have been said to have replaced Townsend wares on Maryland's western shore. However, Potomac Creek ceramics do not appear to have completely replaced Townsend wares at the Choptico Indian Town site, which dated to about 1710 (King, Trussell & Strickland 2014).

The ceramic assemblage during the Late Woodland at the Lower Brambly 1 site (18ST51) is quite comparable to the ceramic assemblage at the Choptico Indian Town (18ST153) site (Table 23). Though there is a notably low sample size (n=25) given the nature of the surface survey, 80% of the Late Woodland ceramics observed were shell tempered, with 20% being sand or quartz tempered. At Choptico, 81.9% (n=122) of the ceramics are shell tempered, and 18.1% (n=27) are sand or quartz tempered.

Temper	**Lower Brambly 1 18ST51**		**Choptico Indian Town 18ST153**	
Shell	20	80.0%	122	81.9%
Sand/Quartz	5	20.0%	27	18.1%
TOTAL	25		149	

Table 23. Late Woodland ceramic tempers at Lower Brambly 1 (18ST51) and Choptico Indian Town (18ST153).

A total of 109 historic ceramics were observed at the Lower Brambly 1 (18ST51) site (Table 24). Colonial wares (n=20) make up 18% of the historic ceramic assemblage. Colonial ceramics include tin-glazed earthenware (n=1), Staffordshire slipware (n=2), Buckley (n=1), Manganese mottled earthenware (n=1), creamware (n=6), English Brown stoneware (n=3), Rhenish blue and gray stoneware (n=1), white salt-glazed stoneware (n=4), and Jasperware (n=1). Fourteen unidentified lead glazed and 4 unglazed coarse earthenware sherds as well as 22 porcelain sherd were recorded, though it is unknown whether these wares represent part of a colonial or post-colonial occupation.

Because of the lack of earlier 17th-century wares such as Border ware, North Devon, Morgan Jones, and Rhenish Brown stoneware, the colonial occupation most likely dates to sometime after 1700, and more likely after the second quarter of the 18th-century. Some of the colonial ceramics recorded are found during the end of the 17th-century, such as tin-glazed earthenware, Staffordshire slipware, and English Brown stoneware. Tin-glazed earthenware in the Chesapeake is found on sites dating from the first years of English settlement and up through to the war of independence. Similarly, English Brown stonewares first appear in the Chesapeake around 1690 and cease to be widely traded after the war. Staffordshire slipware was first produced in the mid-17th-century and were exported to the American colonies until the 1770s (Noel Hume 1970).

The most numerous colonial ceramics found at the site include white salt-glazed stoneware, English Brown stoneware, and creamware. White salt-glazed stonewares are found on sites in the Chesapeake after about 1720, with the exception of dipped wares which have been found to date as early as 1700 (Edwards and Hampson 2005; Skerry and Hood 2009). One sherd of white salt-glazed stoneware found between the Lower Brambly house and the Wicomico River was decorated with a molded dot, diaper, and basket pattern, which would've been manufactured sometime between 1750 and 1770

Historic Ceramics	
Tin-glazed earthenware	1
Staffordshire slipware	2
Buckley	1
Manganese-mottled earthenware	1
UID lead-glazed earthenware	14
UID coarse earthenware	4
Creamware	6
Pearlware	8
Edgeware	1
Cream-colored ware	3
Mochaware	1
Dipped/Annular ware	2
Whiteware - plain	14
Whiteware - sponge-painted	1
Whiteware - transfer-printed	5
UID refined earthenware	1
Ironstone	4
English Brown stoneware	3
Rhenish blue and gray stoneware	1
White salt-glazed stoneware	4
Jasperware	1
Rockingham	1
North American gray stoneware	8
Porcelain	22
TOTAL	**109**

Table 24. Historic ceramics recorded from surface survey – Lower Brambly 1, 18ST51.

(Edwards and Hampson 2005:215). Creamware first appears in the mid-18th-century and was quite popular in the third quarter of the century and into the early 19th century (Miller and Hunter 1990:110; Noel Hume 2001:204, 209).

Post-colonial ceramics dominated the historic ceramic assemblage and include a wide variety of wares present throughout the 19th-century. These include pearlware (1780-1830), impressed and scalloped edgeware (1800-1830s), mochaware (1790s-1850), dipped/annular wares, plain whiteware, sponge painted whiteware (1820s-1860s), transfer printed whiteware (1783-1907), ironstone, Rockingham (1830-1936), and North American gray salt-glazed stoneware.

Post-colonial glass of a variety of colors was also observed in great numbers (Table 25). Colonial olive green bottle glass consisted of only 13% of the total glass assemblage. Other glass varieties included aqua, light green, light blue, manganese, milk-glass, true blue, 19th century dark olive green/black glass, colorless, brown, and bright green. Eight fragments of colorless tableglass were also observed. Determining the age of the aqua glass is problematic, as pharmaceutical bottles in the colonial period were also of this color.

Few architectural artifacts aside from brick were recorded at the Lower Brambly 1 site (Table 26). Among the architectural artifacts found were window glass (n=5), a wire nail (n=1), parts to an iron stock lock (n=2), and a single large piece of possible architectural sandstone. Other hardware include a possibly strap hinge fragment.

A few small finds were found, all likely associated with the 19th-century period of occupation. Among the small finds were 2 horseshoes, 1 possibly hoe blade, 1 modern axe blade, a milk-glass button, and a silver thimble. The silver thimble (Figure 58) is decorated with an etched floral motif. Stamped on the bottom rim of the thimble is the number "8," indicating its size. Sizes were not stamped onto thimbles until after about 1880 (Beaudry 2007). This thimble was found in Field 1 in the area of highest brick concentration, where the house supposedly burned down around 1883.

When giving a tour of the site, a possible mill stone was observed by Maryland Historical Trust archaeologist, Matt McKnight, submerged in the Wicomico River approximately 15 feet from the low tide water line. Attempts to more carefully document this possible mill stone were hampered by high tide on subsequent visits. An 1826 reference to a tide

Glass (non-architectural)	
Olive Green (colonial)	16
Aqua	17
Light Green	6
Light Blue	13
Manganese	5
Milk-glass	6
True Blue	6
Dark Olive Green/Black	4
Colorless	36
Brown	5
Bright Green	2
Tableglass	8
TOTAL	**124**

Table 25. Non-architectural glass recorded from surface survey – Lower Brambly 1, 18ST51.

mill appears in land records for the adjacent Longview Beach subdivision property (Land Commissions JH 2/285-288). It is unknown whether this possible mill stone could be associated with the tide mill.

Architectural	
Window glass	5
Nail (wire)	1
Lock	2
Architectural sandstone	1
TOTAL ARCHITECTURAL	9
Other	
Hinge	1
UID iron hardware	2
Horseshoe	2
Hoe blade	1
Axe blade	1
Mill stone	1
Glass button	1
Thimble	1
TOTAL OTHER	**10**

Table 26. Architectural and other artifacts recorded from surface survey – Lower Brambly 1, 18ST51.

Another curious find came on another tour of the property. A single fragment of thin flat copper was found at the edge of Field 2, near the highest concentrations of native ceramics. Initial visual analysis of the copper yielded little information and it was thought it might be associated with the 19th-century period of occupation of the site. This copper was the only artifact recovered from the site in order to further analyze it. The idea being to test it against known contact period samples of copper as well as 19th-century copper artifacts.

The copper was subjected to an X-Ray Fluorescence (XRF) spectrometry test. XRF testing is a non-destructive technique of analyzing the chemical composition of objects by emitting focused X-rays or gamma rays at the surface of an object. The focused energy causes photons to be emitted from the object, and the wavelength of this reflected energy can be quantified and measured according to each element. With the help of Dr. Randy Larsen of the Chemistry Department at St. Mary's College of Maryland, the copper was tested against 2 copper triangles, a ring, and a copper bead recovered from the Zekiah Fort (18CH808) and Choptico Indian Town (18ST153) sites. Dr. Patricia Samford loaned 19th-century examples for sites in Baltimore County for comparison.

The results of the XRF testing (Table 27 & Figure 59) were also compared to samples previously tested from Jamestown and the Werowocomico site. The best method of comparison between all samples was by examining ratio of copper to zinc, lead, iron, nickel, and tin to determine the alloy. The samples from Jamestown and Werowocomico contained copper that was either almost pure copper, or copper alloyed with about 23% zinc (Hudgins n.d.). Likewise, the copper from Lower Brambly 1 and Choptico Indian Town were samples of nearly pure copper with negligible amounts of zinc. The samples from Zekiah Fort contained small amounts of zinc (notably less than the samples from Jamestown and Werowocomico) as well as noticeably higher amounts of the other metals. The 19th-century samples from Baltimore county contained 20 and 29 percent zinc.

Figure 58. Silver thimble from Lower Brambly 1, 18ST51.

The lead content of all samples is also revealing. The samples from Lower Brambly 1, one of the triangles from Zekiah Fort, and all samples from Jamestown and Werowocomico had virtually no lead. All other samples had some appreciable lead content, ranging from 3.3 to 8.2 percent. It is highly probable that the copper sample retrieved from Lower Brambly 1 is either native copper, or early traded copper like the samples from Werowocomico and Jamestown.

Object	Copper %	Zinc %	Lead %	Iron %	Nickel %	Tin %
19th Century - Screw	62.69	29.05	0.68	0.31	0.04	0.00
19th Century - Knob	69.56	20.19	4.77	2.57	0.06	0.21
Zekiah Fort - Ring Enamel	77.03	2.84	8.24	8.21	0.018	2.82
Zekiah Fort - Ring	89.34	1.57	2.99	2.10	0.04	1.43
Zekiah Fort - Triangle 1	88.81	5.79	2.77	0.35	0.03	0.00
Zekiah Fort - Triangle 2	77.05	6.91	0.39	0.21	0.04	0.05
Choptico Copper Bead	92.99	0.06	3.30	0.00	0.90	0.00
Wolfe - Scrap	84.59	0.05	0.00	0.14	0.02	0.00
Avg. Hudgins Type 1	96.35	0.19	0.21	0.06	0.04	0.45
Avg. Hudgins Type 2	73.66	23.19	0.15	0.06	0.02	0.23

Table 27. Metal composition within tested samples of copper alloy – sample from Lower Brambly 1 (18ST51) highlighted.

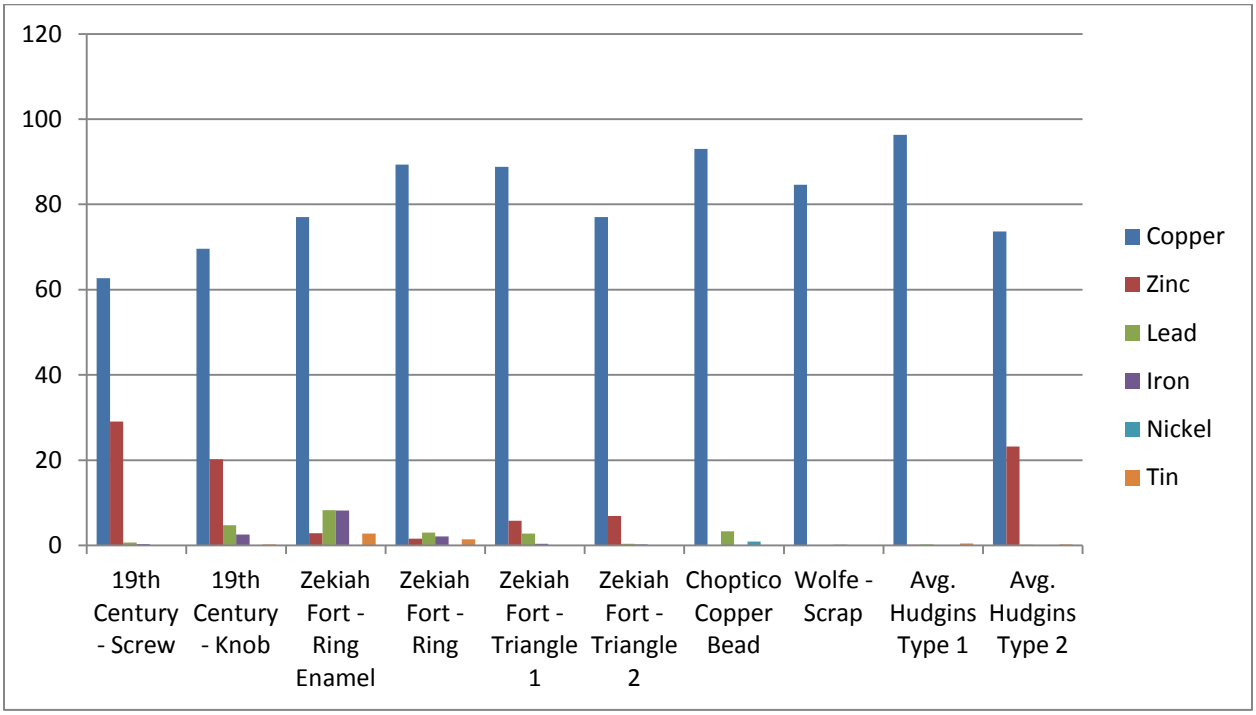

Figure 59. Chart of metal composition within tested samples of copper alloy.

Conclusion – Lower Brambly 1 (Longview Beach, 18ST51)

Lower Brambly 1 (18ST51) is a large and complex multi-component site. Prehistoric use of the land can be dated by the observed artifact assemblage to at least the Middle Archaic period and into the Late Woodland and probable contact periods. The site has been continually occupied during the historic period from the 18th-century to the present.

What is particularly intriguing about the Lower Brambly 1 site (18ST51) is the vast scale of the shell middens. The site appears to contain the largest single shell midden recorded in St. Mary's County. The south shell midden at measures approximately 22 acres, while the north shell midden follows close behind at 15.5 acres. This makes the property home to 2 of the largest shell middens recorded in the county. Prior to the recordation of the shell middens at Lower Brambly, the largest shell midden was

identified as 18ST228. Located at the southern end of Newtowne Neck overlooking St. Clements Bay, this site measures approximately 8 acres.

The sheer volume of oyster shell is very telling. Diagnostic artifacts indicate the site was utilized in some way since the Middle Archaic period. The large shell deposits likely began to appear during the Middle and Late Woodland, as societies in the region began to transition to more sedentary methods of subsistence. The Wicomico valley contains the richest alluvial deposits in St. Mary's County conducive to agriculture. Most of the eastern shore of the Wicomico consists of long flat terraces. At the Lower Brambly property, this flat terrace extends nearly a mile inland from the shores of the river.

The river is fed by many creeks, streams, and other tributaries with perennial springs. These tributaries served not only as a source for drinking water, but a habitat for wild games, and advantageous locations for shelter. Notable tributaries in this area are Whites Neck Creek, Mill Creek, Bramleigh Creek, Manahowics Creek, Chaptico Bay, and Budds Creek – all of which have very similar landscapes to the Lower Brambly 1 site.

When mapping the Chesapeake Bay region in 1608, English explorer Captain John Smith visited the Potomac River valley. Along the way, Captain Smith visited several native settlements, recording information like the number of warriors at each village and the relations among the different settlements. Smith sailed up the Potomac, including parts the Wicomico River. Smith produced a map that was published in 1612, as well as a 1624 manuscript entitled *The Generall Historie of Virginia*.

Smith's map (Figure 60) uses a particular symbology to represent the types of settlements he saw and visited. A dot with a circle was chosen to represent what Smith called "ordinary howses", while a drawing of a native longhouse was used to denote "Kings howses". It is widely accepted that Smith's terminology of ordinary houses generally represent smaller hamlets or villages, while kings houses represent larger and more substantial settlements. Smith shows only one kings house on the Maryland side of the Potomac between what is obviously now Pt. Lookout and Maryland Point in Charles County. He labels this village or kings house as Cecomocomoco, and depicts it on the east side of a large river or bay. As Smith travels up the Potomac from this river or bay he encounters another tributary with a small village called Potapaco – most certainly what is now referred to as Port Tobacco in Charles County.

It is highly suggestive and likely that the Cecomocomoco village is being depicted on the east side of the Wicomico River. This village almost certainly is the origin of the name of the Wicomico River. In Smith's manuscript he refers to the village as Secowocomoco – a village with at least 40 men or warriors. It is likely that when Smith visited Secowocomoco he encountered a circular palisaded village, which was typical of large settlements in the region during the Late Woodland and contact periods. These types of fortified settlement have been uncovered at other John Smith related sites, such as at Potomac Creek in Stafford County, Virginia, and Moyaone in Prince George's County, Maryland (Potter 1993:149-161).

The Lower Brambly 1 site (18ST51) could be the location of Secowocomoco. The vastness of the site and the large quantities of Late Woodland period pottery observed on the surface suggests a substantially large village that may have been occupied at the time Smith was exploring the area. The site would've been well in view of any ship travelling up the Potomac River, being perched upon the Wicomico River overlooking its mouth. As discussed earlier, the Late Woodland ceramic assemblage is quite comparable to another contact period native settlement along Chaptico Bay, about 4.5 miles to the north. This is suggestive that the Lower Brambly 1 site would've been occupied at the time of Smith's arrival to the area.

Figure 60. Smith's Map of Virginia, detail, showing the Potomac drainage.

The curious copper find shares similarities in chemical composition to copper found at Jamestown and the Werowocomico site. Copper was traded by the early English settlers, included John Smith himself, with the people at Werowocomico. It is uncertain at this time whether the copper found at Lower Brambly 1s of native or European origin, but it is suggestive that this copper may have similar origins to those found at Werowocomico.

It is uncertain when the native presence ended at Lower Brambly, but it could have occurred around 1651 with the creation of Calverton/Choptico Manor. At that time, Cecil Calvert, the second Lord Baltimore, sought to establish eight to ten thousand acres of land near the head of the Wicomico where "the Mattapanians the Wicomocons the Patuxants the Lamasconsons the Kighahnixons and the Chopticons" could resettle without fear of aggression from encroaching English colonists (Archives 1:329-330).The remaining residents at Secowocomoco during the mid-17th-century may have been then referred to as the Wicomocons. This would also help to explain the similarities in the ceramic assemblage, having been produced by the same people continuing their cultural traditions.

The native occupation of Lower Brambly almost certainly came to a halt when the land was taken up by Justinian Gerard in 1663. The site of Justinian Gerard has not yet been located, but it is known that he lived somewhere on the Lower Brambly property, either on the portion now owned by Ms. Nancy Wolfe, or somewhere on the Longview Beach subdivision.

The earliest known European settlement found at the Lower Brambly 1 site (18ST51) was most likely initiated by John Llewellin around the second quarter of the 18th-century. It could have possibly been taken up earlier by his father Richard. John Llewellin's role as tobacco inspector and supporter of the patriot cause during the war for independence made the Brambly tract a local landmark – being a location for which tobacco would have been exported. Provisions held at Llewellin's warehouse were likely sent, at least on one occasion, to General George Washington and his troops as they were leaving Valley Forge to reclaim Philadelphia from the British in 1778.

The home Llewellin built stood for about 150 years before it burned down in the early 1880s. Truman Thomas acquired the property around this time in 1883 and built the house now called Lower Brambly which stands just a short distance away from where the earlier 18th-century house once stood. Llewellin's tobacco inspection house and storehouse appears to have still been standing in 1836, though it is unknown when it ceased to be so.

The oral tradition of the property, now held by Ms. Nancy Wolfe, is astonishingly accurate. What Ms. Wolfe called the location of the "customs house" is depicted as having a small lot and building, at least into the 1860s. Located at the corner of the Brambly property where it meets the Wicomico River and the Longview Beach subdivision, scatters of red brick can be seen on the surface, signaling the presence of a building of some type. On the opposite end of the property near the mouth of Bramleigh Creek, it is alleged that there was once a cemetery. Though no stones or depressions were seen in this location, there is little reason to doubt the accuracy of Ms. Wolfe's assertion.

Overall, the Lower Brambly property is a very significant location. Continually occupied since the Middle Archaic period to the present, the amount of knowledge that could be gained here cannot be overstated. Through Ms. Wolfe's commendable efforts, the property is to be preserved for future generations to enjoy much in the way that she and others in the past have always enjoyed it. As a consequence, the archaeology on site is not threatened by development, and will remain so for a long time to come.

Artifact Distributions – Lower Brambly 2 (18ST884)

Artifact distributions of the Lower Brambly 2 site (18ST884) can be seen in Figures 61-63. The Lower Brambly 2 site is confined only to Field 5 of the overall Lower Brambly tract. Very few artifacts were observed.

The distribution of oyster shell (see Figure 61) extends from the edge of the marsh at the head Bramleigh Creek approximately 320 feet at its greatest extent. The shell also follows a small tributary stream as it intersects the driveway leading to the Lower Brambly House. The density of shell is considerably lower at this site compared to the shell observed in Fields 1 and 2.

Lithic material (see Figure 62) at Lower Brambly 2 (18ST884) does not tightly follow the same orientation as oyster shell. There are no identifiable clusters of lithic material, and the overall distribution is quite sparse. However, surface visibility was much lower than in Fields 1 and 2, making oyster shell the most readily visible artifact type in Field 5. It is entirely possible that artifacts could have been missed.

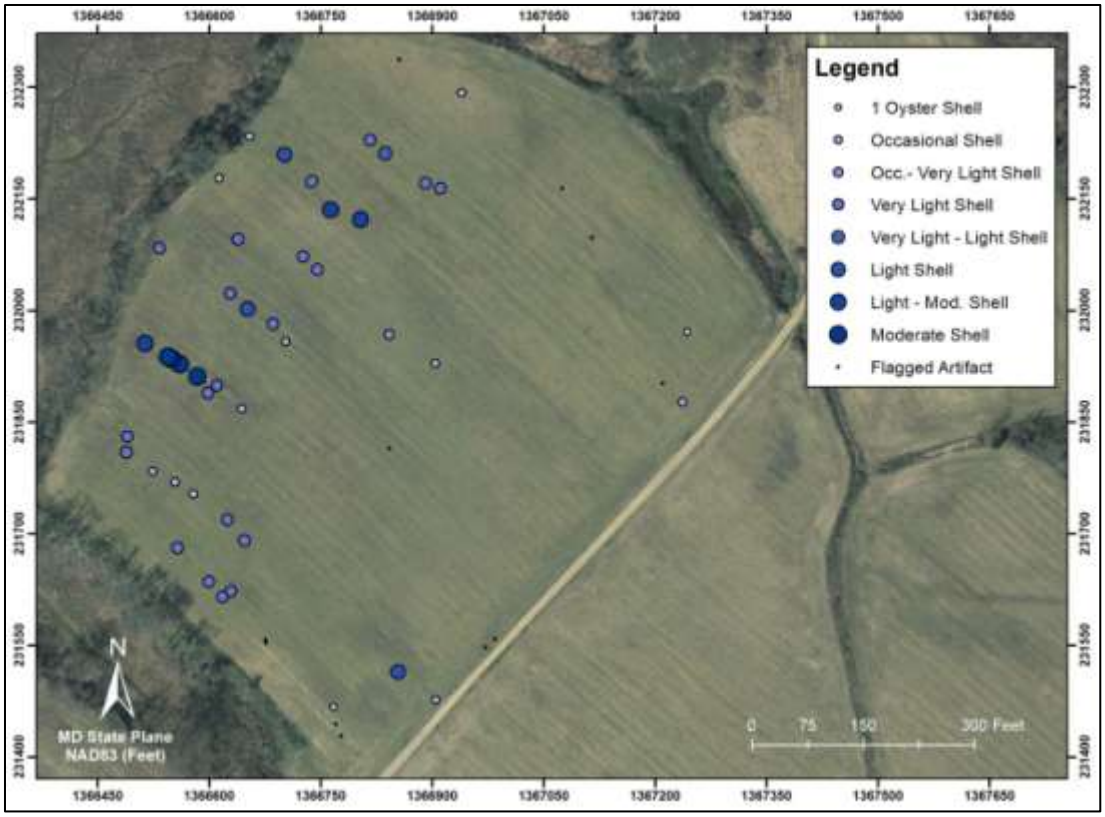

Figure 61. Distribution of oyster shell - Lower Brambly 2, 18ST884.

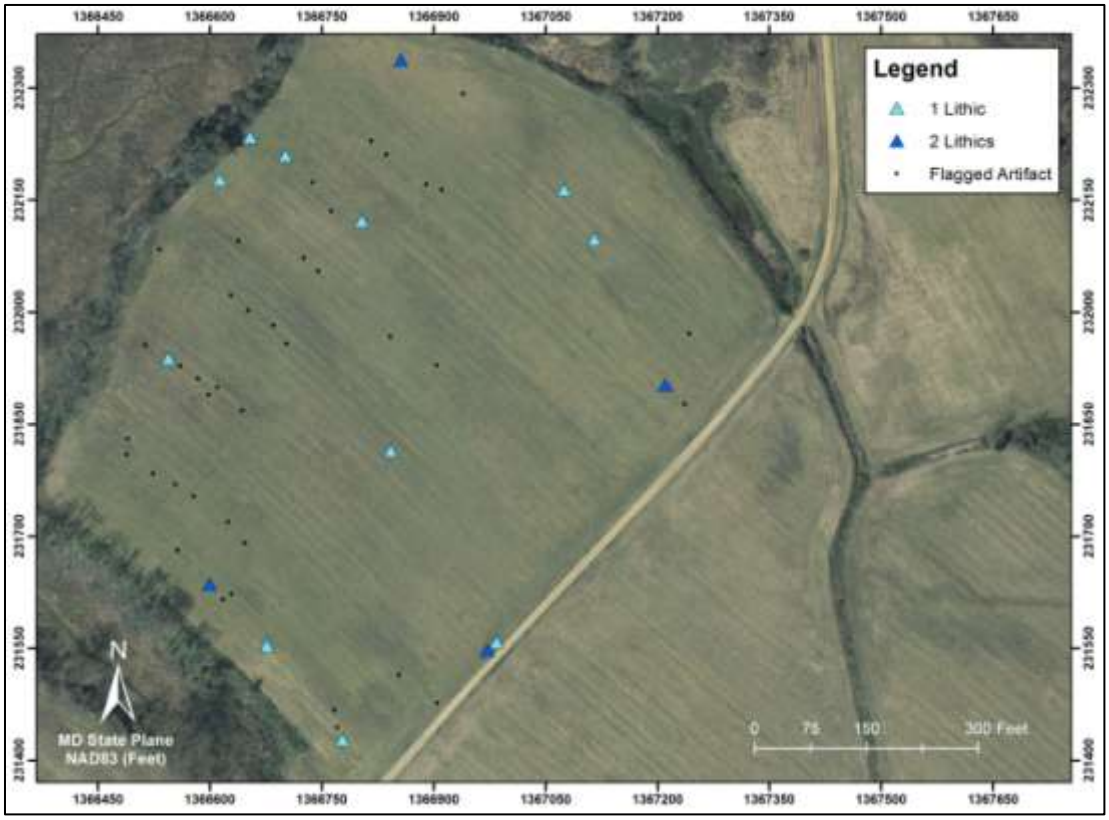

Figure 62. Distribution of lithics - Lower Brambly 2, 18ST884.

Figure 63. Distribution of glass - Lower Brambly 2, 18ST884.

Only one diagnostic historic period artifact was observed at this site. A single fragment of colonial bottle glass was observed the southernmost corner of Field 5 (see Figure 63). A small increase in shell density was also seen in this corner, suggesting that additional artifacts might be found in the adjacent field and across the driveway.

Results – Lower Brambly 2 (18ST884)

Table 28 summarizes all of the non-shell artifacts observed at the Lower Brambly 2 site. Lithic material consisted of 1 quartz core, 1 quartz secondary flake, 7 fire cracked rocks, and 11 quartz and quartzite shatter fragments. As earlier stated the only historic period artifact was a single fragment of colonial olive green bottle glass. It is highly recommended that survey be continued in the adjacent fields to locate any other historic period artifacts.

Core	1
Flake - secondary	1
Fire cracked rock	7
Shatter	11
Olive green glass (colonial)	1
TOTAL	**21**

Table 28. Artifacts recorded from surface survey – Lower Brambly 2, 18ST884.

Conclusions – Lower Brambly 2 (18ST884)

Lower Brambly 2 is likely a small unidentified prehistoric resource procurement site. Situated at the head of Bramleigh Creek, native occupants would have been at a convenient location to exploit surrounding natural resources such as deer, fowl, turtle, fish, and shellfish resources. The site is probably associated with the much larger and substantial occupation at the Lower Brambly 1 site.

The single fragment of colonial bottle glass found here is intriguing. This glass is far removed from the areas of colonial occupation at Lower Brambly 1 (18ST51), while at the same time lying on the same historic tract. It is known that Justinian Gerard lived somewhere on the Brambly tract sometime between 1663 and 1688. No artifacts definitively associated with his tenure on the property were found within the historical context at Lower Brambly 1. It is possible that future survey in the adjacent agricultural fields next to Field 5 may reveal some clues as to the location of Gerard's plantation site.

Chapter 12.
Wicomico Fields

The Wicomico Fields property, also owned by Ms. Nancy Wolfe, was investigated in early April, 2015. The property, once part of Basford Manor, contained a standing late 19th-century farmhouse with large agricultural fields with multiple areas to access freshwater sources. Not all of the property could be surveyed because of planted crops and ground visibility issues. The field surveyed was in close proximity to the Notley Hall site (18ST74), the dwelling of former governor Thomas Notley and location of a large unidentified prehistoric shell midden.

Project Area

The Wicomico Fields property is located a little over a mile north of the Lower Brambly property at the head of Manahowic Creek (Figures 64 & 65). The property sits on a low terrace with 0-5% slopes. The soil is generally sandy with areas of gravel (see Figure 66 for soil map). Some areas are poorly drained with small drainage ditches cut into the land. Four notable outcrops of large quartz and quartzite cobbles and gravel are delineated in Figure 67.

Figure 64. Wicomico Fields area map.

Figure 65. Wicomico Fields site locations.

Figure 66. Soil types in the Wicomico Fields project area.

Figure 67. Location of cobble and gravel deposits - Wicomico Fields.

The area surveyed is located in agricultural fields at the head of Manahowic Creek, between 2 smaller tributary streams. Survey area is west of and adjacent to a gravel farm road and begins 230 feet west of two old tobacco barns. The surveyed fields also begin 900 feet west of the circa 1880s/1890s Wicomico Fields house (MDIHP SM-425).

At the time of the survey, only two fields were available for survey. All other fields in the vicinity were planted with winter wheat at the time, measuring approximately 2 feet high, making ground visibility next to 0%. The two fields surveyed sit at the western end of the Wicomico Fields property. Ground visibility in the two fields was between 75 and 100%. The largest of the two fields (herein referred to as the south field) measures approximately 20.5 acres. The smaller field (north field) measures approximately 4 acres. The smaller north field was noticeably less well drained than the south field, sitting slightly lower in elevation and closer to one of the tributary streams.

Tract History

A detailed title history of the property is more particularly cited and described in Table 29. The property now called Wicomico Fields was initially referred to as part of Basford/Bashford Manor , which was patented to Thomas Gerard in 1650 for 1,500 acres. At the time Thomas Gerard owned most of the land along the Wicomico River south of Chaptico Bay towards Coltons Point.

Date	Grantee	Reference
Unknown	Mark E. Grace Jr.	Calvert County Testamentary Records, Estate 4146
3/31/1987	Mark E. Grace Sr.	SMCLR MRB 343/244
9/28/1967	Mark E. & Mary K. Grace	SMCLR MRF 137/25
7/20/1944	Francis Gwinn Swann and Julia Loretto Swann	SMCLR CBG 16/249
9/16/1916	Frank D. Swann	SMCLR EBA 15/370
2/27/1905	Heirs of Mary Carpenter	Died intestate
7/30/1881	Mary A. L. Carpenter	SMCLR JFF 5/315
8/17/1880	J. Walter Carpenter	SMCLR JFF 4/263
9/2/1877	Gearge R. Garner	Testamentary Record JTMR 1/443
9/10/1873	Catharine A. Garner	SMCLR JAC 6/367
11/30/1870	Mariah R. Garner	SMCLR JAC 5/222
3/24/1870	Catharine A. Garner	SMCLR JAC 4/246
10/5/1830	James Thomas	SMCLR JH 8/542
Unknown	Richard Thomas	SMCLR JH 8/542 (mention)
3/30/1795	William Thomas Jr.	Wills JJ2/113
4/22/1773	William Thomas Sr.	Archives 726/467
6/3/1746	John Goldsmith	Maryland Calendar of Wills 24/421
7/31/1683	Thomas Notley Goldsmith	Prerogative Court Wills 4/15
6/30/1659	John Goldsmith	Archives 49/573
1650	Thomas Gerard	Pat. Rec. AB&H 167 & 181

Table 29. Wicomico Fields chain of title.

Gerard transferred 300 acres of the property to John Goldsmith in 1659. Goldsmith arrived in Maryland in 1650, having been brought over to the colony by Thomas Gerard (Archives Pat. Rec. 3:24). The land was likely given to Goldsmith after completing his service as an indentured servant to the

Gerard family. The 1664 description for the adjacent Notley Hall/Manahowic Neck property references this property as the land of Goldsmith (Archives 49:131). John Goldsmith dies in 1683, leaving the land, referred to as his dwelling plantation, to his son Thomas Notley Goldsmith.

Thomas Notley Goldsmith leaves the property to his three sons, John, Michael, and Notley after his death in 1746. Though bequeathed to his three sons, it is his son John Goldsmith that owned the entirety of the land in 1773, when he sold it to William Thomas. The land was still referred to as part of Basford Manor in 1830 when William Thomas' grandson Richard leaves the property to his son James Richard Thomas. The property remained within the Thomas family until 1870 after the death of James Richard Thomas.

The land was sold by Frederick Stone and David Briscoe, trustees of James' estate, to Catharine Garner in 1870. This transfer marks the first reference to the property under the name Wicomico Fields. The land is transferred from Catharine Garner to Mariah Garner later that same year. Mariah in turn transfers the land back to Catharine in 1873. Catharine leaves the property George Reeder Garner at her death in 1877, referring to the property as the residue of her estate, which suggests that this was not the property where she resided.

Three years later, in 1880, Garner sells the land to J. Walter Carpenter, who in turn sells it to Mary Carpenter the following year. It is a member of the Carpenter family who is believed to have built the house known as Wicomico Fields (MDIHP SM-425). Mary dies intestate in 1905, where the land is left to her heirs, Walter Raymond Carpenter, Lola Mary Young, Laura Tappan, Sidney Britton, Arthur Carpenter, Newton Ford Carpenter, and Sidney Carpenter. The heirs transfer the 289 acre tract to Frank Swann in 1916.

Frank Swan transfers a portion of the tract, measuring 244 acres to Francis Gwinn and Julia Loretto Swann in 1944. By 1967, the land is further described as containing 229 when it is sold to Mark and Mary Grace. The property passed to Mark and Mary Grace's son Mark in 1987. Mark Grace sold the land to Leonard Thomas Bowles in 2001. The current owner, Nancy Wolfe, purchased the property from Bowles in 2005.

Distributions

As at the Lower Brambly site, individual counts of brick and shell were not undertaken, but rather recorded in a qualitative ranked order of either occasional, very light, light, moderate, heavy, or very heavy scatters. Because of the subjectivity of this method of recording, all recording was made by a single observer. Two sites, Wicomico Fields 1 (18ST882) and 2 (18ST883), are within relatively close proximity to each other. Given this proximity, artifact distributions (Figures 68-72) for the two sites will be discussed together.

The distribution of oyster shell (see Figure 68) reveals four main clusters throughout the survey area. Within the Wicomico Fields 1 site (18ST882), there are three clusters of oyster shell. One concentration of oyster shell is clustered to the west overlooking the head of Manahowic Creek. Another cluster was observed 500 feet to the east at the south-center area of the site overlooking a wooded tributary stream. The third shell cluster of Wicomico Fields 1 is located in the northernmost corner of the site next to a drainage ditch and standing near another tributary stream. A single shell concentration was observed within the Wicomico Fields 2 site (18ST883), opposite the drainage ditch previously mentioned, and overlooking the same tributary stream. It is unknown if grading and the digging of the drainage ditch has created an artificial boundary and separation between the two sites or whether what was observed on the surface was the result of other cultural forces.

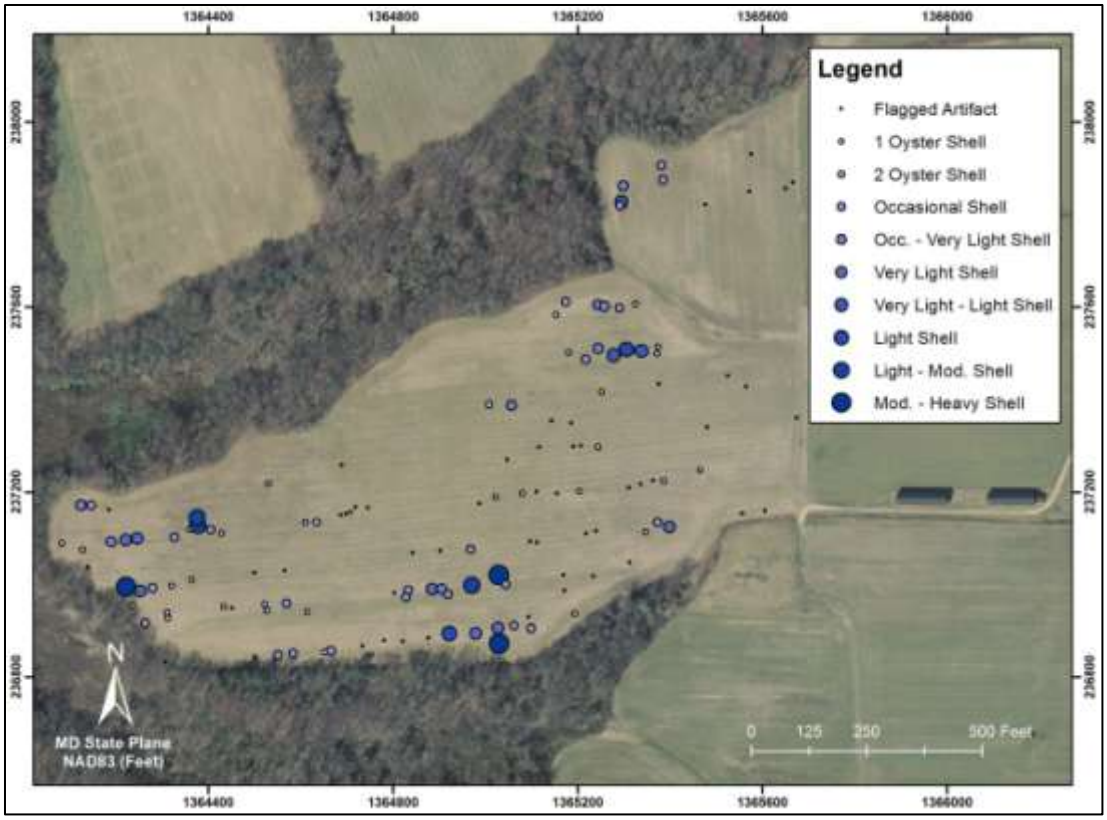

Figure 68. Distribution of oyster shell - Wicomico Fields.

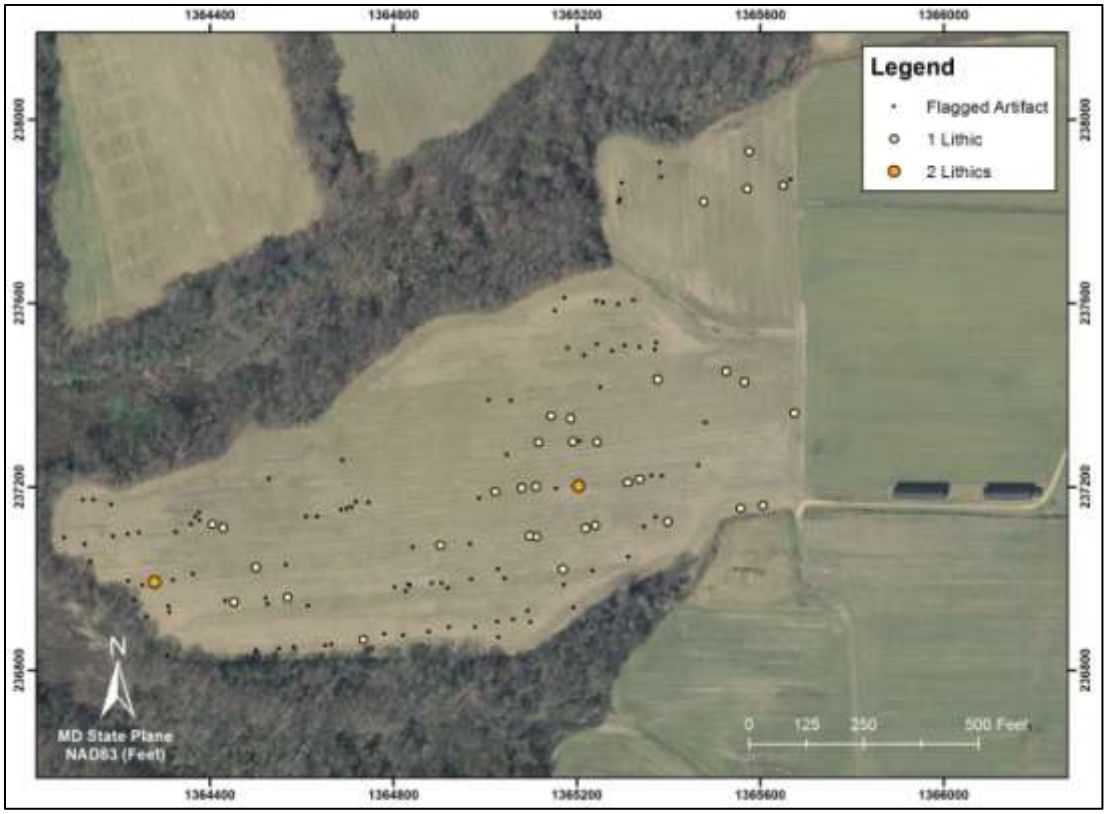

Figure 69. Distribution of lithics - Wicomico Fields.

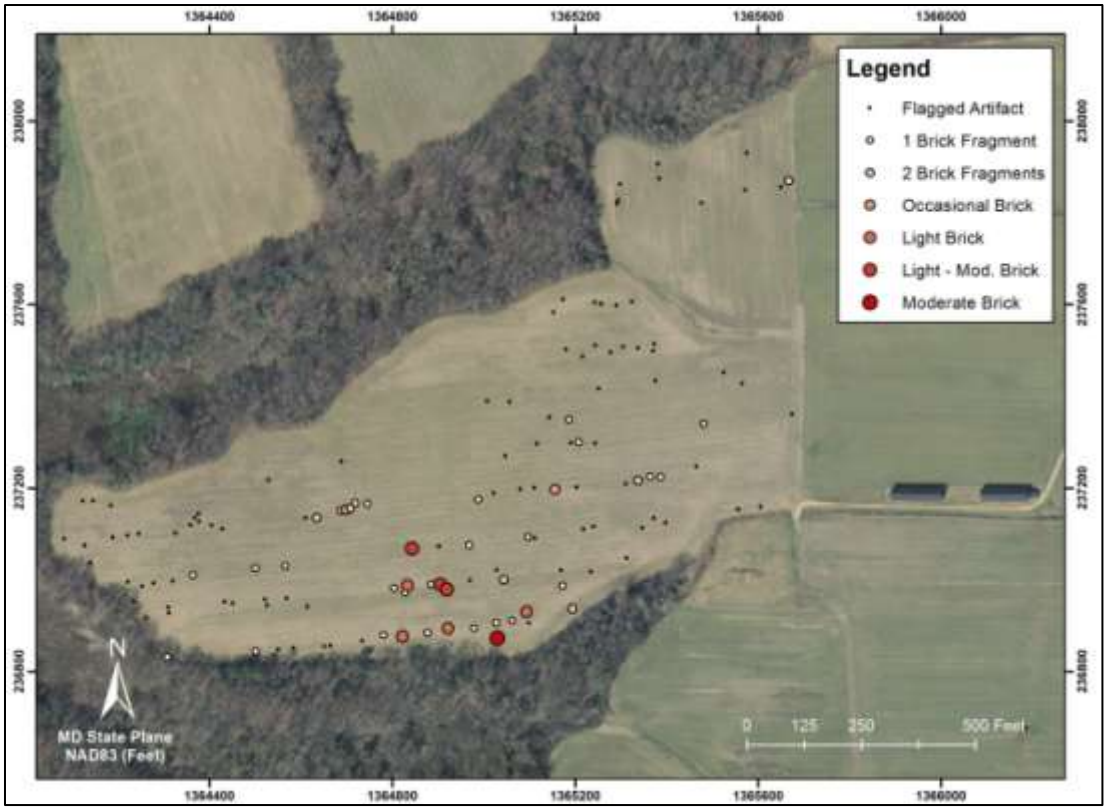

Figure 70. Distribution of brick - Wicomico Fields.

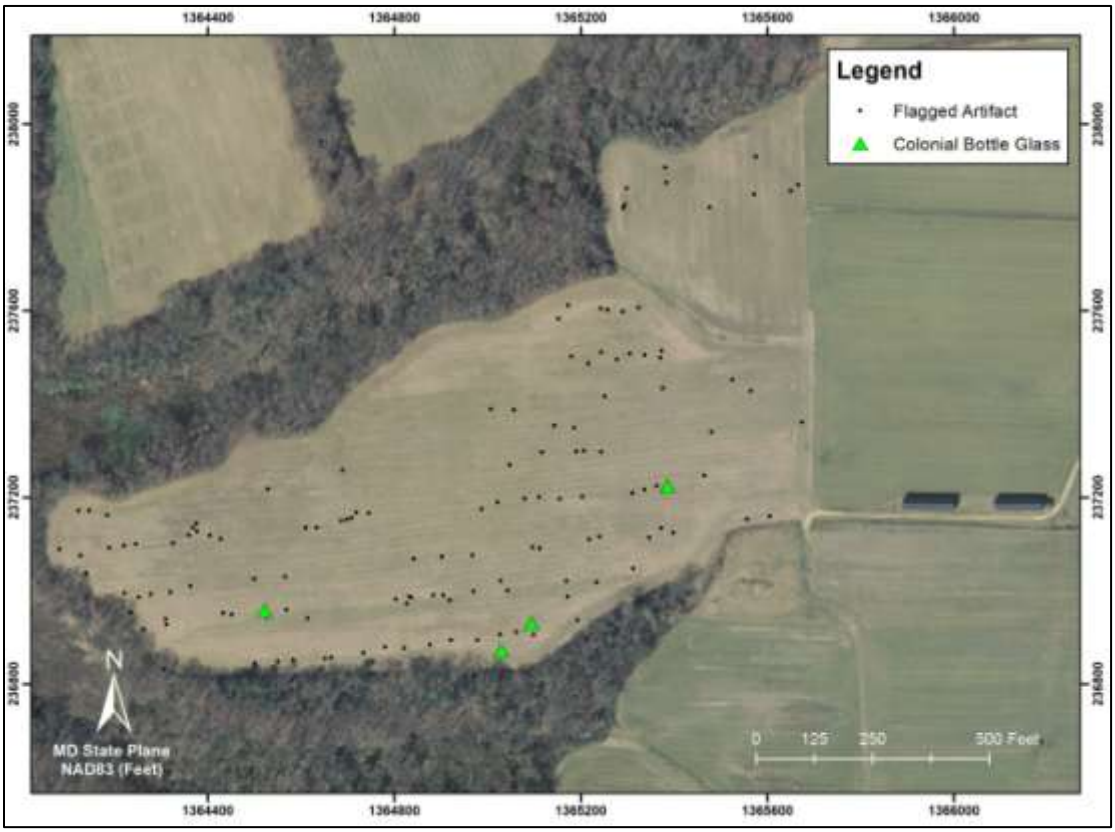

Figure 71. Distribution of colonial bottle glass - Wicomico Fields.

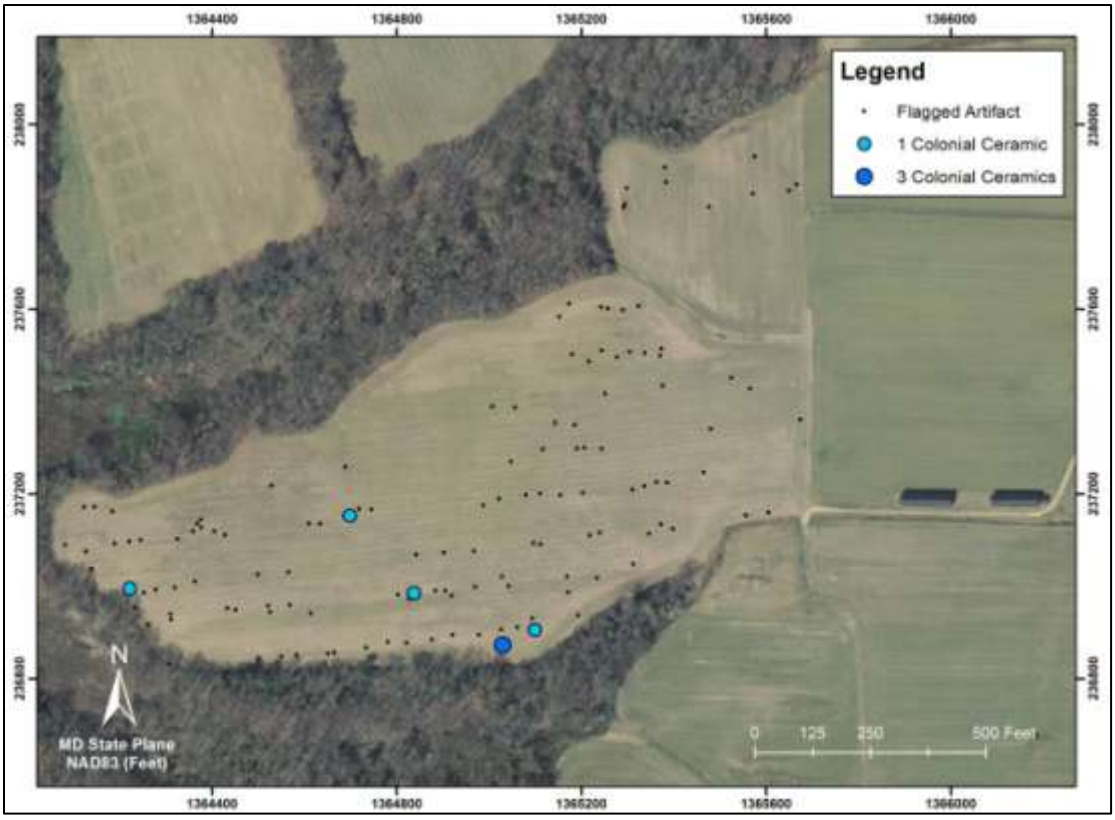

Figure 72. Distribution of colonial ceramics - Wicomico Fields.

Lithic material (see Figure 69) is found relatively clustered in at least three identifiable areas. Two of the clusters, both located within the Wicomico Fields 1 site, appear just outside areas of noted outcrops of quartz and quartzite cobbles. Within the larger of the two clusters a Normanskill or Clagett projectile point was recorded. The third cluster of lithic material was observed at the eastern end of the Wicomico Fields 2 site.

The distribution of red brick fragments (see Figure 70) indicates a relatively dense cluster in the south-central area of the Wicomico Fields 1 site (18ST882). Other lower density clusters of brick were seen throughout the south field. The area of higher densities of brick likely represents a main structure, while the remaining areas could represent smaller service structures associated with the long history of the property as a plantation and farm.

Colonial period artifacts such as olive green bottle glass and ceramics (see Figures 71 & 72) are found in the same areas as the brick, though with a notable heavier concentration in the area of the highest brick concentration. The south-central area of the Wicomico Fields 1 site appears to be the core area of colonial activity. This likely represents the main domestic dwelling location. This area is advantageously situated for accessing the freshwater stream and spring located just to the south.

Results

The Wicomico Fields 1 site (18ST882) is a multi component site with both prehistoric and colonial occupations. A total of 46 non-shell and non-brick artifacts (summarized in Table 30) were observed.

Prehistoric artifacts account for nearly 72% of the overall assemblage, and comprised entirely of lithic artifacts. A single diagnostic prehistoric artifact, a quartz Normanskill or Clagett point, was recorded at the site. Clagett points date to the Late Archaic period with a speculative date range between estimated anywhere between 3700 and 1450 BC (Steponaitis 1986; Dent 1995). The Virginia Department of Historic Resources suggests that this point could date to the Middle Archaic period as well. Normanskill points are also identified as being either a Middle or Late Archaic point type. Radiocarbon dates place this point within the Late Archaic period between 2450 and 1650 BC (Kinsey 1972; Funk 1993).

Prehistoric	
Projectile Point	1
Core	2
Biface/Tool	1
Flake - tertiary	1
Flake - secondary	7
Flake - primary	5
Fire cracked rock	7
Shatter	9
TOTAL PREHISTORIC	**33**
Historic	
Buckley/Buckley-like	2
UID lead-glazed earthenware	2
UID redware	1
Creamware	1
Olive green glass	4
Colorless glass	1
Poss. architectural stone	2
TOTAL HISTORIC	**13**

Table 30. Artifacts recorded from surface survey – Wicomico Fields 1, 18ST882.

Other lithic material observed included two cores, one unidentified biface or tool, stone flakes (n=1 tertiary, n=7 secondary, and n=5 primary), fire cracked rock (n=7), and lithic shatter (n=9). The higher numbers of shatter, primary flakes, and secondary flakes, coupled with the relative lack of tertiary flakes is intriguing. The presence of several, probably natural, outcrops of quartz and quartzite stone at the site suggests that the site may have been used during the prehistoric period as a lithic extraction or quarry site. Primary and secondary flakes represent that stone was being pre-processed and possibly relocated elsewhere for tool finishing.

Historic artifacts included ceramics, bottle glass, and possible architectural sandstone. Historic ceramic types include 18th-century wares such as Buckley (n=2) and creamware (n=1). Other wares included unidentifiable lead glazed earthenware sherds (n=2) and a single sherd of unglazed redware. The dominance of more utilitarian wares and the lack of more refined earthenware or even porcelain is indicative of a somewhat lower status individual. However, overall sample sizes are low.

A total of four olive green colonial bottle glass fragments were observed. A single fragment of colorless molded bottle glass was the only modern artifact observed at the site.

Core	1
Shatter	3
Brick	2
TOTAL ARTIFACTS	**6**

Table 31. Artifacts recorded from surface survey – Wicomico Fields 2, 18ST883.

The Wicomico Fields 2 site (18ST883) contains few artifacts, none of which are diagnostic (Table 31). The assemblage consists only of one core, three shatter, and two red brick fragments. The two red brick fragments were observed beside one another within a drainage ditch. It is highly likely that these fragments were used to stabilize the drainage ditch and do not represent the presence of an historic period component to the site.

Conclusions

The prehistoric component of the Wicomico Fields 1 site (18ST882) dates at least to the Late Archaic period. The outcrops of quartz and quartzite cobbles found throughout the site suggest this site would be ideal for resource extraction. The presence of higher numbers of primary and secondary flakes as well as shatter implies that the site was utilized as a lithic extraction or quarry site. The site was also utilized for its shellfish resources, as evident in the concentrations of oyster shell along the edges of the field by Manahowic Creek. No prehistoric ceramics were found at the site, all but precluding any occupation during the Woodland periods.

The historic period artifacts indicate a relatively low status household with few fine wares. All diagnostic artifacts point to an occupation restricted to the 18th-century. Based on the documentary research, it is highly likely this is the site of John Goldsmith whose tenure on the property spanned from 1746 to 1773. It is likely that Goldsmith's occupation of the site predated 1746 when the land was owned by his father Thomas Notley Goldsmith. The site was most likely abandoned when John Goldsmith sold the property to William Thomas in 1773. William Thomas is known to have occupied the home known as Deep Falls located in Chaptico (MDIHP SM-71).

Chapter 13.
Little Hackley

Surface surveys of the Monfort, Lower Brambly, and Wicomico Fields properties provided well and almost regularly spaced area samples along the southeastern shore of the Wicomico River. The Little Hackley property, located near the very mouth of the Wicomico, provided more coverage in this area of little archaeological survey. The Little Hackley property was visited on May 1, 2015 to assess ground visibility prior to conducting surface surveying of the property. Though not under cultivation, the fields at Little Hackley proved somewhat challenging with variable levels of visibility. As will be discussed, historical records and maps proved key to supplementing any lack of archaeological evidence.

Project Area

The Little Hackley property is located near Colton Point along St. Catherine's Sound, east of St. Catherine's Island. The property is located just south of the historic home known as River Springs (MDIHP SM-116). The property is bordered on the west by St. Catherine's Sound, on the south by Hackley Creek, on the east by Colton Point Road, and on the north by Louis Bailey Drive.

The survey project area (Figure 73 & 74) consists of four main areas bisected in part by a long gravel driveway and a farm road. The gravel driveway separates the property into north and south fields. The south field is bisected by the farm road leading to a 20th-century house ruin (Figure 75) and a collection of barns. This farm road separates the south field into southeast and southwest sections. At the end of the gravel driveway is a partially wooded yard area. The total acreage for the north field is 28 acres, while the southeast and southwest fields measure 13.5 and 10 acres, respectively.

Figure 73. Little Hackley area map.

Figure 74. Little Hackley site locations.

Figure 75. 20th century brick ruin - Little Hackley.

The yard area, measuring roughly 2.5 acres, contains several outbuildings and a brick cellar ruin from a 1930s house. Outbuildings consist of a possible electric utility shed or ice house, a well house, a late 19th-century carriage house, a cabin, and a long recreational building. All buildings at this site lay abandoned. The current use of the yard area is for camping and fishing. A transect of six shovel tests was dug in the yard area, revealing evidence of grading around the 20th-centuy ruin. Where there was no apparent grading, stratigraphy revealed a layer of brown (10YR4/3) sandy loam plowzone between 0.8 to 0.9 feet in depth.

The land is generally flat, with slopes between 0 and 5 %. Up until recently the land was used as a nursery for the Denison Landscaping company of Fort Washington, Maryland. The company retained a right to harvest the trees planted at the property. At the time of the surface survey of the land, no trees from the former nursery were remaining. Prior to its use as a nursery, the land had been put into agricultural production. As of 2015 the lands have been left fallow, reducing ground visibility to 25 to 50%. Soil is a sandy well drained soil with very little gravel. Figure 76 shows the different soil types in the Little Hackley project area.

Tract History

The property known as Little Hackley was first granted to John Shanks sometime prior to 1666 (see Table 32 for a more particular description). The property remained in the Shanks family for several generations. The great grandson of John Shanks, Morris Shanks left the Little Hackley property to his daughter Martha Morris Shanks, though land records indicate that his other daughter Harriet Ann "Nannie" Shanks lived there. Both Martha and Harriet were married to sons of George Blackistone of River Springs, located just north of the Little Hackley property. Martha was married to Dr. Richard Pinkney Blackistone, and Nannie to Zachariah Deminieu Blackistone. The property remained in the Shanks/Blackistone family until 1899 when Nannie sold the property to Robert Yates. Yates died intestate and the property was purchased by Harry Bradley in 1911. Bradley sold the land in 1916 to Thomas Pickford. Thomas Pickford later sold the property to Anton Schroth of Washington, DC in 1918. Schroth dies sometime before 1926 when it is sold by trustees to William and Elizabeth Simpson. The Simpsons in turn sold the property to Fulton Gordon in 1935.

A house ruin sits on the site approximately 815 feet north of Hackley Creek. The brick cellar/basement ruin measures approximately 35 by 30 feet, with two 8-foot concrete porches on opposite sides for a total dimension of 35 by 46 feet. This house ultimately burned down in 1999, creating the ruin seen today. It is unknown exactly when the house was built but it was likely built by real estate broker and developer Fulton Gordon sometime shortly after he bought the property in 1935. Gordon sold the property in 1937 to Frederick Garlem. 1960 and 1967 aerial photos (Figure 77) reveal the true extent of the house including its roofline. The home was built similar to the American foursquare style which was popular from the mid 1890s to late 1930s. It is known that Fulton Gordon built in this style. The Harry and Fulton Gordon property (built in 1905) in Laurel, Maryland (MDIHP HO-819) is of the American foursquare style and of similar dimension. The roofline also bears similarities to another building

Figure 76. Soil types in the Little Hackley project area.

associated with Gordon, also in Laurel, Maryland (MDIHP HO-849). Fulton Gordon is associated with major suburban development projects throughout the DC area in the early 20th century, including successful developments in Chevy Chase, North Laurel and Columbia Heights. Fulton Gordon, being a very wealthy developer likely built many of the improvements seen on the property today and in the 1960s aerial photos.

Date	Grantee	Reference
4/7/2006	Lawrence and Nancy Wolfe	SMCLR EWA 2751/102
1/19/2001	John P. Denison	SMCLR EWA 1611/78
8/10/1977	Theodore F. Watts & Mary Frances Watts Blanco	SMCLR MRB 277/233
6/15/1951	Adelaide M. Watts	SMCLR CBG 31/8
3/26/1937	Frederick Garlem	SMCLR JMM 10/172
1/4/1935	Fulton Gordon	SMCLR JMM 9/165
8/5/1928	William Simpson	SMCLR JMM 4/349
12/31/1918	Anton T. Schroth	SMCLR EBA 17/447
12/5/1916	Thomas Pickford	SMCLR EBA 15/498
11/21/1911	Harry & Mary Bradley	SMCLR EBA 9/531
6/22/1899	Robert Yates	SMCLR EBA 1/106
After 1856	Harriet Ann "Nannie" Shanks Blackistone	SMCLR EBA 1/106 (mention)
8/23/1825	Morris Shanks	Wills JF1/147
1749	John Shanks	Prerogative Court Wills 27/183
1716	Thomas Shanks	Inferred
2/16/1684	John Shanks	Prerogative Court Wills 4/91
By 1666	John Shanks	Archives 57:282 (mention)

Table 32. Little Hackley chain of title.

Figure 77. 1967 aerial photo - Little Hackley (Source: http://earthexplorer.usgs.gov/).

A drawing of an earlier structure known as Little Hackley survives with the Blackistone and Dent families (Figure 78). The drawing itself likely dates to sometime in the 19th century. The drawing depicts a typical one-story Georgian style house with a livable attic or loft and two end chimneys. The house in the drawing has at least a superficial similarity to another, still-standing, 18th century house in St. Mary's County. It appears to be of similar size and elevation plan to West St. Mary's Manor (Figure 79, MDIHP SM-2) with 2 end chimneys and 3 window dormers for attic/loft room space. In addition to the house the drawing

depicts a decaying wooden barn and two outbuildings, one of which appears to have a chimney (likely a kitchen). It is uncertain from the drawing what type of construction the house was built other than having brick end chimneys. Further evidence can be taken from the 1798 Federal Direct Tax record for John Shanks. The tax record describes a one-story house measuring 38 by 20 feet with a total of 8 windows. Other buildings include a kitchen measuring 16 by 20 feet a corn house at 28 by 20 feet, a carriage house 20 by 14 feet and a barn measuring 32 feet square "much gone to decay". The home was likely a timber frame house, as brick is not mentioned in the description of the house as is most often the case.

Figure 78. 19th-century drawing of Little Hackley (Unknown source).

Figure 79. West St. Mary's Manor (Source: MDIHP SM-2).

An existing carriage barn measuring approximately 35 by 25 feet is located near the 20th century ruin. This structure (MDIHP SM-843) is dated to around 1890 and is not the structure mentioned in the 1798 Federal Direct tax. It is possible that this circa 1890 carriage barn/house was erected near or on top of the site of the previous carriage house. The original 18th century Little Hackley house appears to have still been standing in 1902 when it is depicted along with several other buildings on a 1902 US Coast Survey Map of the Lower Potomac River (Figure 80). The 1902 map suggests that the house was located just to the southwest of the carriage barn, where the possible electric utility shed or ice house now stands. It is conjectured that where the 20th century ruin stands is the approximate location of the kitchen depicted on the 19th century drawing of Little Hackley.

Distributions

With the exception of the yard area, all fields were surface surveyed for any artifacts. Visibility in the yard area was 0% so a single transect of six shovel test pits were dug in order to confirm the presence of the earlier structures depicted on the historic maps of the property. The shovel tests were placed in the area between the 20th-century house ruin and the possible electric utility shed or ice house.

As with the Lower Brambly and Wicomico Fields properties, all shell and brick were recorded based on their relative densities throughout the field. Distributions of artifacts recorded at both sites are found in Figures 81 through 86. The Little Hackley 1 (18ST889) and Little Hackley 2 (18ST890) site extents are best observed through the distribution of oyster shell fragments throughout the property. The

Little Hackley 1 site (18ST889) consists of a prehistoric shell midden observed in the northern half of the site (see Figure 81). Additional areas of shell within the Lower Hackley 1 site are found in areas where historic ceramics and glass were recorded (see Figure 82).

Oyster shell observed at the Little Hackley 2 site (18ST890) does not appear to have a prehistoric provenance, and is more likely associated with an additional historic period occupation that is depicted on the 1902 US Coast Survey map. A linear protrusion of shell extending from the northeast area of the site coincides with an old roadway seen on the 1902 map.

Lithic material (see Figure 83) was found only within the Little Hackley 1 site, with the exception of a single fire cracked rock found in the field between the two sites. No other prehistoric finds were recorded at either site.

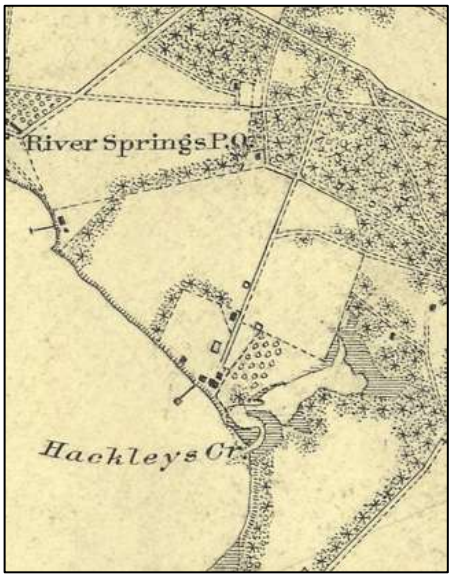

Figure 80. 1902 US Coast Survey map, Little Hackley
(Source: http://historicalcharts.noaa.gov/).

Very little red brick was observed at either site (see Figure 84) despite the presence of other historic materials and indications from historic maps. A possible explanation for this is the ground visibility at the time of the survey. Brick is along and in close proximity to the long gravel driveway leading to the yard area at the Little Hackley 1 site. At the Little Hackley 2 site (18ST890), brick is seen in a small area adjacent to Louis Bailey Drive, as well as near the long gravel driveway. Much of the observed brick roughly corresponds to the predicted building locations as depicted on the 1902 survey map.

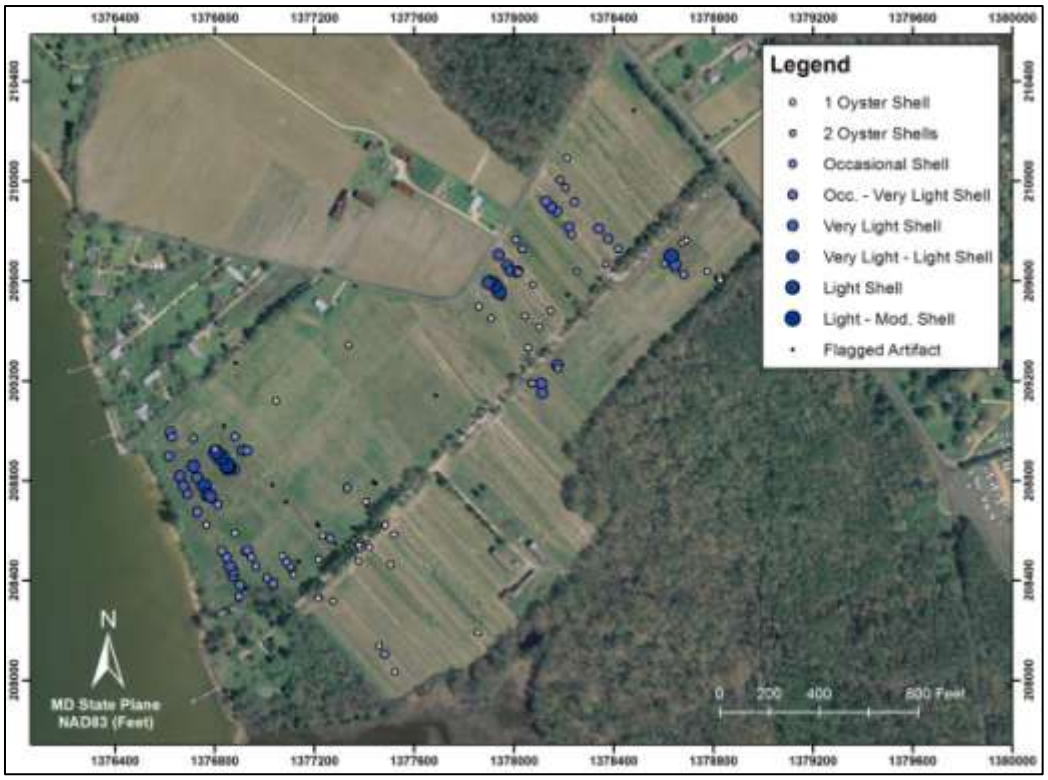

Figure 81. Distribution of oyster shell - Little Hackley.

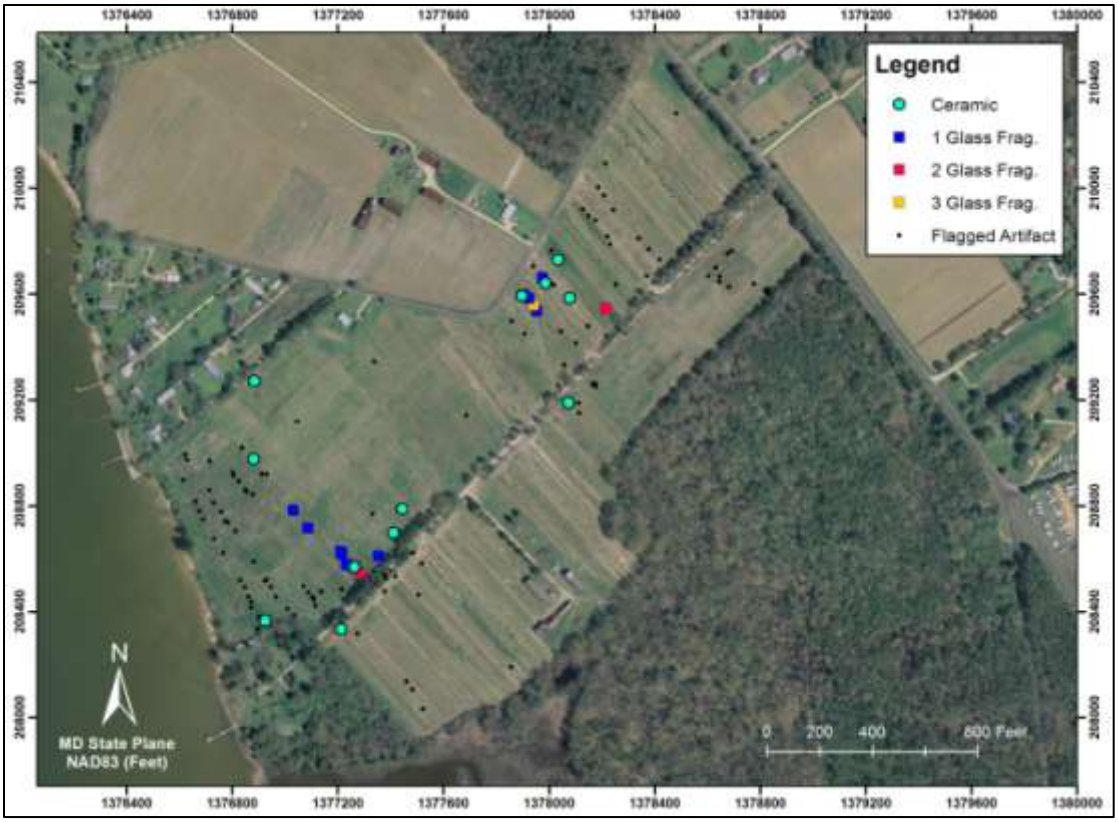

Figure 82. Distribution of historic ceramics and glass - Little Hackley.

Figure 83. Distribution of lithics - Little Hackley.

Figure 84. Distribution of brick - Little Hackley**.**

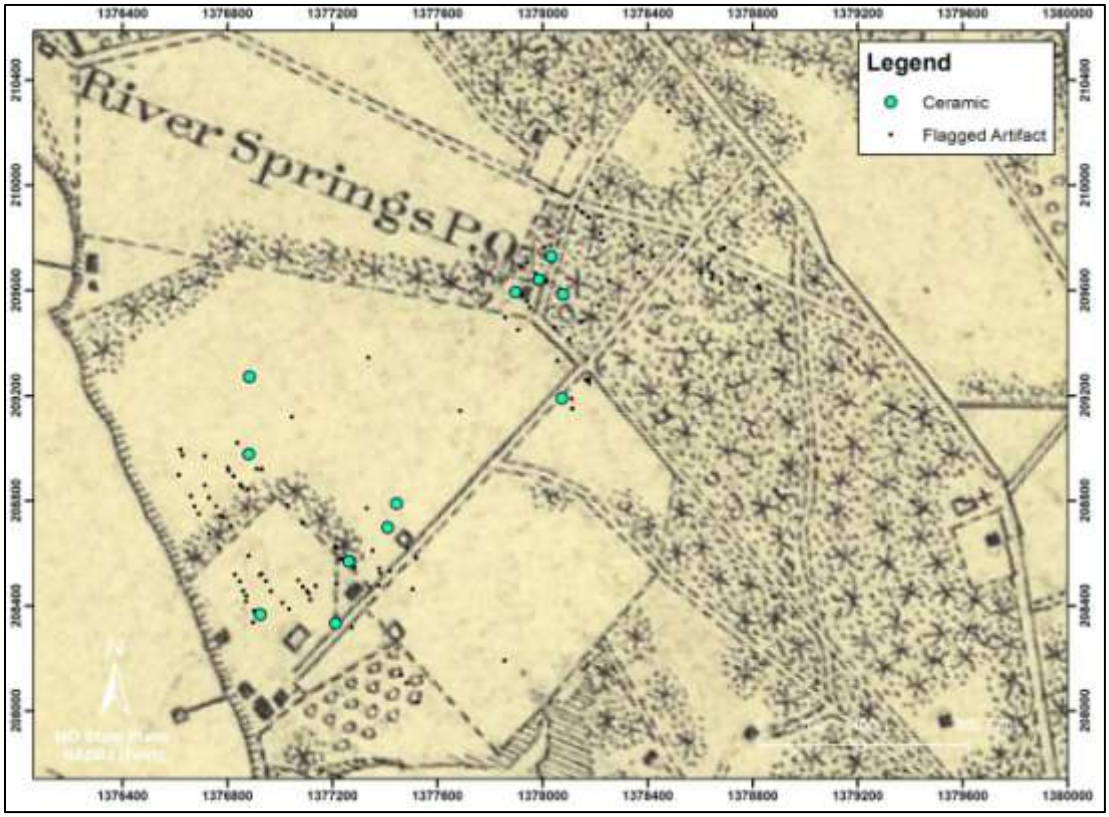

Figure 85. Distribution of ceramics over 1902 US Coast Survey map - Little Hackley.

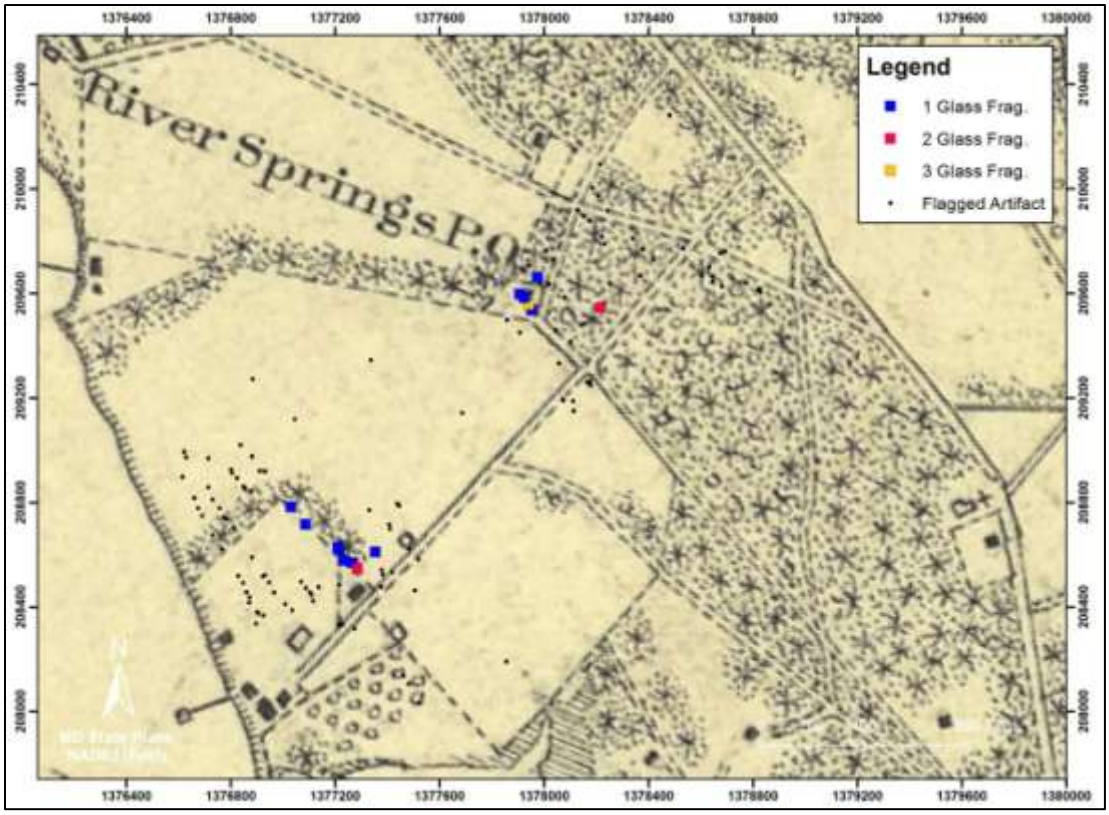

Figure 86. Distribution of glass over 1902 US Coast Survey map - Little Hackley.

Most of the ceramics observed on the property appear associated with buildings depicted on the 1902 survey map (see Figure 85). One notable exception is in the very northern end of the Little Hackley 1 site, where a single sherd of white salt-glazed stoneware was observed. No other 18th-century wares were observed through the surface survey. Bottle glass, like the historic ceramics, appears in conjunction with the locations of buildings as depicted in 1902 (see Figure 86).

Results

A total of 27 non-shell and non-brick artifacts were observed at the Little Hackley 1 site (18ST889) through the systematic surface survey (Table 33). Artifacts consisted of both prehistoric and historic materials. Prehistory materials (n=8) accounted for 29.6% of the entire assemblage. Historic artifacts, mostly 19th-century in date, made up the remaining 70.4% of materials recorded.

Prehistoric artifacts consisted of only lithic materials, located primarily in a small shell midden at the northern end of the site. Lithic artifacts included a single biface or tool, tertiary flakes (n=2), fire cracked rock (n=2) and lithic shatter (n=3). No diagnostic artifacts for the prehistoric occupation of the site were found.

Historic artifacts were much more numerous throughout the Little Hackley 1 site (18ST889). With the exception of one isolated sherd of white salt-glazed stoneware, the ceramics and glass observed within the site consisted of only 19th and 20th-century varieties. Additional ceramics observed included chrome-painted refined earthenware (n=1), whiteware (n=3), North American gray salt-glazed stoneware (n=1), and porcelain (n=1). The chrome painted refined earthenware sherd contained a floral design with black stems, typical of this style ware between 1830 and 1860 (Jefpat 2012). Glass included aqua-colored (n=4), colorless (n=5), brown-colored (n=1), and milk glass (n=1). Recorded aqua-colored glass was thick

Prehistoric	
Biface/Tool	1
Flake - tertiary	2
Fire cracked rock	2
Shatter	3
TOTAL PREHISTORIC	**8**
Historic	
Chrome-painted refined earthenware	1
Whiteware	3
White salt-glazed stoneware	1
North American gray stoneware	1
Porcelain	1
Aqua glass	4
Colorless glass	5
Milk glass	1
Brown glass	1
Concrete	1
TOTAL HISTORIC	**19**

Table 33. Artifacts recorded from surface survey – Little Hackley 1, 18ST889.

bottle glass, and likely not the thin pharmaceutical glass variety seen in earlier periods. A single very weathered concrete fragments was also observed.

A transect of six shovel tests pits were dug in the yard area in the vicinity of 20th-century ruin. All brick and shell was counted and weighed. A total of 172 artifacts were recovered from the shovel tests (Table 34). Very few lithic materials were found (2.3% of entire assemblage), and consisted of only flakes and shatter.

Architectural artifacts (n=49) made up 28.5% of the entire artifact assemblage from shovel tests. About 73% of the architectural artifacts consisted of red brick fragments (n=36). The next most frequent architectural artifact type was shell lime mortar fragments. This differed from the mortar used in the construction of the 20th-century house ruin, suggesting evidence of the earlier occupation of the site. Other artifacts include a single piece of window glass, three unidentified nail fragments, and one unidentified square nail fragment.

Ceramics make up 19.4% of the assemblage and include two sherds of orange micaceous coarse earthenware. One sherd is likely a fragment of flowerpot, while another strongly resembles a form of Iberian olive jar – the precise dating of which is not possible without knowing the shape and form. Two sherds of creamware were also identified, one of which appeared burnt. This, along with the shell limed mortar may be the best indicator of the earlier 18th-century structure shown in the drawing of the property. A single sherd of later plain white refined earthenware was also recorded. Nine sherds of an unidentified gray pasted stoneware with a thick white glaze were recovered from a single shovel test. These sherds are likely related to the 20th-century occupation of the site.

Oyster shell made up 53.4% of the entire artifact assemblage from the shovel tests. Other material included coal, charcoal, a bullet shell casing, and plastic were recovered.

The Little Hackley 2 site (18ST890) contained no prehistoric materials. The site is best defined by the scatter of red brick fragments. A total of 14 historic period artifacts were recorded (Table 35). Only one sherd of a later cream-colored white refined earthenware was observed, as well as four porcelain sherds of unknown date. The remaining historic artifacts were of different glass varieties. Aqua-colored glass container and bottle fragments (n=5) were the predominant glass type at this site. The next most frequent glass type were true/deep blue colored bottle fragments (n=2). Single fragments of colorless and manganese bottle glass were also recorded. The former structure at the Little Hackley 2 site was likely built sometime in the last half of the 19th-century.

Conclusions

The surface survey and limited shovel testing at the Little Hackley property mostly confirmed what was speculated from the analysis of 19th and early 20th-century maps of the area. An unexpected find was the unidentified prehistoric shell midden located in the north field, in the northern end of the Little

Hackley 1 site (18ST889). Because visibility was relatively poor at this site, it would be recommended that the site be tested further to better date the prehistoric component.

The yard area of Little Hackley is the area most likely to yield more information on the activities on the property during the 18th and 19th-centuries. Though shovel testing revealed obvious grading related to the construction of the 20th-century house, there is still the potential for finding undisturbed buried deposits. It is known through the documentary research that the land was taken up and occupied by the Shanks family during the 17th-century. The surface survey and limited shovel testing did not yield any evidence of this occupation. Further testing of the yard area and adjacent woods should be undertaken to confirm or not confirm the location of the 17th-century occupation in this area.

Cream-colored refined earthenware	1
Porcelain	4
Aqua glass	5
Manganese glass	1
True blue glass	2
Colorless glass	1
TOTAL ARTIFACTS	**14**

Table 35. Artifacts recovered from surface survey – Little Hackley 2, 18ST890.

The Shanks and Blackistone families resided on the property for over 200 years. The remnants of the 19th-century occupations were seen throughout the Little Hackley property. The 1902 US Coast Survey map shows several structures lining the long gravel driveway. These likely represent housing for laborers or tenant farmers, as well barns. The 1870 US Census lists several African American servants and farm laborers listed as part of the household. These men and women were likely former slaves of the Blackistones that remained on the farm following emancipation. This included six members of the Smothers family – Margaret (age 8, servant), Jane (age 40, cook), Clarry (age 10, servant), Samuel (age 7), Henry (age 5), and Leonard (age 60, farm laborer), and a man named Henry Stewart (age 62, farm laborer) (US Census 1870). It is unknown if the Smothers family and Mr. Stewart, resided in one of the structures show along the gravel road within the Little Hackley 1 site (18ST889), or if they resided at the location of the Little Hackley 2 site (18ST890).

Lithic	
Flake - tertiary	2
Flake - primary	1
Shatter	1
Ceramics	
Micaceous earthenware	2
Creamware	2
UID white refined earthenware	1
UID stoneware	9
Glass	
Tableglass	4
Oil lamp glass	1
Colorless glass	3
Brown glass	1
Architectural	
Window glass	1
UID square nail	1
UID nail	3
Iron staple	1
Shell lime mortar	7 (20.6 g)
Red brick	36 (53.4 g)
Other	
Oyster shell	92 (116.2 g)
Coal	1
Charcoal	1
Bullet shell	1
Plastic	1

Table 34. Artifacts recovered from shovel test pits – Little Hackley 1, 18ST889, yard area.

Chapter 14.
Recommendations

Archaeological resources in St. Mary's County have their fair share of threats, specifically from inundation due to sea-level rise. Models indicate that sea-level rise will at least partially affect nearly one-third of all recorded sites in the county. Particularly at risk are sites at the southern tip of the county and including the islands in the Potomac such as St. George's, St. Clement's, and St. Catherine's. Erosion is also a threat, especially in coastal areas along the Chesapeake Bay and near the mouth of the Potomac River.

While we cannot provide specific recommendations for combating the effects of sea-level rise, it is possible to develop a series of steps towards trying to locate unrecorded sites in at-risk areas. This would be done through a system of fieldwork, settlement pattern analysis, and developing sensitivity models. The limitations of existing data and recommendations for further fieldwork and analysis will be discussed throughout this chapter.

Before this project began, the Historic Preservation Commission was concerned about what impact development was having on the county's archaeological resources. Development has caused the complete loss of at least two sites, both in California, Maryland. The largest area of growth in the county is within the Lexington Park Development District, which includes portions of Great Mills and California. This area encompasses land along both the Patuxent River and the Chesapeake Bay, as well as tributaries of the St. Mary's River.

Currently there is no regulatory framework for addressing the impacts of to archaeological sites (both known and unknown) within the county. It is therefore recommended that some form of archaeological review be implemented in the county. This report will not speculate on what the framework of any such ordinance will be, as it has been written without the benefit of consultation of community stakeholders who would be affected by such measures.

Fieldwork

Sites that have been identified by this project as having already been impacted by development, erosion, and flooding should be checked in the field. Remote sensing via aerial orthography and environmental data layers is useful in quickly identifying impacts and change, though with limitations. Field verification of the extent of impacts and the collection of important new data will better serve to assess sites in the future.

Problems may exist in the way in which sites have been recorded in the past. Correct spatial data is of the utmost importance whenever analyzing critical data themes within a Geographic Information Systems (GIS) database. Many if not most of the sites within the county have been initially mapped on paper using United States Geological Survey (USGS) quadrangle maps. The steps needed in order to transfer this analog data to vector shapefile data include scanning, georeferencing, and digitizing from the original source.

While site boundaries may be shown generally close to their actual location, there may exist errors that stem from the relative inaccuracy of the quadrangle maps. Quadrangle maps have been used for decades by archaeologists to denote site boundaries. These maps were the most accurate way in which to record the horizontal location of sites. Standardizing recording in this way made the data easily accessible to others. Quadrangle maps are not without their faults. Their shortcomings become ever more apparent with the development of more accurate ways of recording and sharing spatial data. Quadrangle

maps follow the United States National Map Accuracy Standards, which applies to all mapping products made between all Federal agencies. The standards dictate that 90% of points used to generate maps must be accurate within 1/50th of an inch at map scale. The 7.5 minute quadrangle maps most commonly used are set at a scale of 1:24,000. At this scale, the standards of accuracy are to be +/- 40 feet (USGS 1999).

As part of this project the Clifton site (18ST794) was found to be inaccurately recorded within the Maryland Historical Trust site registry by as much as 150 feet. This error was a direct result of relying on quadrangle maps to denote the location of the site when it was recorded in 2005. The grid system utilized at Historic St. Mary's City is based off of quadrangle maps to derive Maryland State Plane Coordinates (North American Datum 1927). The error incurred is in excess of 20 feet horizontally.

If the horizontal location of a site is off by upwards of 40 feet, the utility of that spatial reference should be scrutinized. Sites recorded in close proximity to wetlands are the most critical. An error of 40 feet can mean the difference between a small site being shown on a dry knoll or in a wet and inundated swamp. This can also affect the measurements of future site impact, especially in low lying areas where the effects of sea-level rise can change dramatically depending on changes in elevation in the surrounding area. It therefore becomes important to physically review sites that appear to have been already negatively impacted to confirm if these impacts may just be an artifact of initial mapping accuracy.

The availability of emergent technologies at the consumer level can better aid in recording site boundaries more accurately and quickly. Mapping products such as Global Positioning Systems (GPS) and GIS have become increasingly available and accessible. Fieldwork conducted as part of this project made use of free and openly available mapping products to record horizontal position using a smartphone GPS with an accuracy of +/- 5 meters (or 16 feet). This data would then be checked and revised accordingly against reference points derived from georeferenced high resolution orthographic imagery - data which are also free and openly available.

It is therefore highly recommended that sites be assessed and checked in areas where the spatial location may be in question. Sites recorded prior to the implementation of North American Datum 1983 on USGS quadrangle maps should be prioritized first.

A number of collections were re-analyzed for diagnostic materials, as discussed in Chapter 8. Reviewing site forms revealed that there were 302 recorded sites with unidentified chronological components recorded prior to 1990. Of these, 73 had curated collections stored at the Maryland Archaeological Conservation lab. Diagnostic materials that were previously unreported were identified in 31 of the 73 collections. As a result of this exercise, reanalysis of the materials was only able to identify 10% of the known sites with unidentified chronological components. More data is needed in order to better identify the remaining 90% of sites that remain unidentified. It is recommended that a sample of these sites be researched more fully, including field visiting and artifact sampling, wherever possible.

Site Sensitivity Modeling

It is among the future goals of the Historic Preservation Commission to design and implement an archaeological sensitivity model. The sensitivity model will aid in identifying areas which could potentially contain undiscovered archaeological resources.

Sensitivity models fall into two main categories - *inductive* and *deductive*. Inductive models are also known as correlative or inferential models. This type of model is used to identify statistically significant relationships between archaeological sites and their surrounding environment. These models utilize previously identified archaeological site locations and review environmental attributes found

within each site boundary. When taken as a whole, statistically significant patterns of settlement can be identified. The ultimate goal being to identify areas with similar/same environments in untested areas where archaeological sites may exist (Kohler 1988; Moon 1993; Wheatley and Gillings 2002; Canning 2005).

The types of variables used in sensitivity models vary depending on the geographic area being studied. A set of environmental variables in one location may not be found in another location. For example; a sensitivity model for Late Woodland Native American sites in St. Mary's County might not necessarily work for Late Woodland sites in New England, as their environments can differ considerably, and the subject of study consists of separate cultures with different worldviews.

The development of sensitivity models is centered on three tasks as stated by Sandra Parker in the 1985 publication of *Predictive Modelling of Site Settlement Systems Using Multivariate Logistics* in the publication *For Concordance in Archaeological Analysis: Bridging Data Structure, Quantitative Technique and Theory*. These three tasks include the following:

1.) The classification of independent variables – such as environmental variables;
2.) The classification of dependent variables – such as site presence/absence;
3.) The expression of the of the relationship between the independent and dependent variables – or the derived outputs created by the independent and dependent variables.

Some common variables include, but are not exclusive to, spatial parameters (such as site clusters), physical environment characteristics (ie. elevation, geology, soils, etc.), economic measures, and cultural features. Economic measures and cultural features are more difficult to quantify, as economic measures are more theoretical, Economic measures can, however, be derived from environmental factors such as soil type and the relationship to land productivity. Cultural features can include proximity to roads, central places in the landscape, and centers of political, social, and economic activity (Wheatley and Gillings 2002).

If one were to conduct a study to develop a sensitivity model of shell midden sites in St. Mary's County, for example, some variables might include proximity to water, salinity levels of nearby water sources (which in turn could also be used to create an economic measure in regards to shellfish habitat resources), soil type(s), clusters of contemporary sites (if known), topography, or any other logical variables.

Inductive modeling, however, is an abstraction that cannot account for all the complexity of the real world, and it is dependent on the researcher to include variables relevant to the types of research questions being asked (Sebastian and Judge 1988). A major criticism of many inductive models is that oftentimes sites are analyzed for correlations between environmental variable simply because environmental spatial data is so readily available. Restricting models to environmental data can oversimplify and generalize to the point that a model is incomplete and unrepresentative of the complexity of human settlement - running the risk of interpreting sites through the simplified theoretical approach of environmental determinism (Kohler 1988; Moon 1993; Ebert 2000; Warren and Asch 2000; Wheatley and Gillings 2002).

Given the criticisms and theoretical pitfalls often associated with inductive and correlative modeling, they are still widely used in the field of Cultural Resource Management within multiple levels of government. A major advantage of sensitivity models is the mitigation of cost and allocation of resources. It has been said that without the development of sensitivity models, the cost to mitigate impacts on archaeological sites would increase (Parker 1985; Moon 1993). Example projects that have been said

to prove cost effective are the models developed by the Minnesota and North Carolina Departments of Transportation. According to the model employed in Minnesota, a predicted 85.5 percent of pre-1837 sites are found in land covering 23 percent of the state. Since the model's implementation, it has been said that project costs had been reduced by $3 million per year (Seibel 2006).

Many models are based on already available information, thereby foregoing costs in obtaining source data (Church et al. 2000; Canning 2005). In the United States, topographic, soil, natural features, geological, and other maps are available, and often free, through various government agencies. This includes the availability of existing site and survey data made available by the Maryland Historical Trust. To elaborate, it is further suggested that models can increase the efficiency and quality of management of resource management firms by reducing their cost (Parker 1985). An example would be any highway project in which its proposed location is moved away from highly sensitive areas identified in any predictive model. Over time, as a spatial database model accumulates more data, its predictive ability can be refined and serve as an effective management tool (Kvamme 1989; Moon 1993).

Scale is an important issue when it comes to developing models for land planning and management. It is stated that "models are most easily interpreted and understood if they relate in a defined way to cultural boundaries or to major environmental zones" (Moon 1993). It is better to have a more broad scale with regard to regional planning and management. However, the inherent weakness is that this cannot produce site-level specific statements. This is usually not critical for regional planning as creating small modelling projects can make it difficult to meet the minimum sample-size required to perform a statistical analysis (Kincaid 1988; Moon 1993).

Given both the both the advantages and limitations of sensitivity modeling, it is recommended that a broad approach be taken with any sensitivity model within St. Mary's County. In order to increase the sample size for statistical testing, archaeological site data should not be restricted to the county alone. Site spatial data should be acquired from adjacent counties such as Charles and Calvert counties in Maryland, as well as King George, Westmoreland, and Northumberland counties in Virginia, opposite St. Mary's along the Potomac. Site sensitivity should also be modeled according to different chronological periods rather than all sites as a whole. There exist major cultural differences, for example, between 19th-century settlement patterns and Early Woodland period settlement.

In order to create a more deductive model, additional non-environmental variables should be compiled and examined. One such variable of importance during the historical period of settlement in the county are land tract boundaries. Being able to map where known European settlement was taking place during the colonial period is commonly used in archaeological survey research projects. The results of this work are often restricted to a single user determining areas to survey or a single site report or other gray literature. The compilation of historic tract information and spatial location is a monumental task, but much work has already been done.

It is recommended that historic tract information be compiled from gray literature and other sources and brought into a single GIS database for mapping and analysis. The location of historic roads should also be considered. An invaluable resource for this data is Peter Himmelheber, a member of the Historic Preservation Commission and the St. Mary's County Historical Society. Himmelheber has plotted many 17th and 18th-century tracts throughout the county and has been involved in a number of projects in tracing old colonial roadbeds. Additional information can also be compiled through acquiring and georeferencing historical maps such as 19th-century atlases, coastal survey, and geological survey maps that depict not only roads, but often buildings and property boundaries.

Conclusions

There is much work that can still be done in order to assess and document archaeological resources within St. Mary's County. Much of what has been recommended will not be completed through a single research project, but rather through a continued effort to compile as much data and historical information as possible.

The problems that will continue to impact sites through the rest of the century are not easily resolved. In fact, the protection of individual property is of greater concern. It becomes important to try and locate and document sites before they are lost, as well as try and gather new information from sites that may be lost in the future.

While development plays only a small role in regards to site impacts, it is important to be able to save archaeological resources where possible. At the same time it is important not to impede upon the future economic development of the county. As Maryland's *Mother County*, St. Mary's is in a unique position in the state to yield new information, especially in regards to colonization and the impacts it has had on the broader cultural landscape. If being able to mitigate the impact on cultural resources is considered a priority, then it can be aided by both the updating of existing knowledge of those resources, as well as by identifying areas that may be archaeologically sensitive.

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Appendix I.
Diagnostics From MAC Lab Re-analysis

Site #	Site Name	Original Chronology	New Diagnostics	New Chronology
18ST013	Egeli South	Archaic, Woodland, Historic Unknown	Calvert point, Vernon point, Madison point, English Brown, Edgeware of various types dating from 1800 to 1890s.	Late Archaic, Early Woodland, Late Woodland, Late 18th, 19th
18ST014	Egeli North	Prehistoric Unknown	Bare Island point, White salt-glazed stoneware, North American gray stoneware	Late Archaic, Mid to Late 18th, Early 19th
18ST015	Pagan Point	Prehistoric Unknown, Historic Unknown	Possible Piscataway point, White clay tobacco pipe stem 9/64" bore	Possible Late Archaic/Early Woodland, 17th
18ST019	Cohouk	Woodland	Townsend ware, Sponge painted edgeware 1820s-1860s	Late Woodland, Early to mid 19th
18ST054	Sotterley Plantation	Archaic, Woodland, 18th, 19th, 20th	Townsend ware	Archaic, Late Woodland, 18th, 19th, 20th
18ST060	Farm House/Point Lookout Salvage	Woodland, Late 17th?, 18th, 19th	Potomac Creek ware	Late Woodland, Late 17th?, 18th, 19th
18ST099	W-T-SM-G 4	Woodland	Mockley ware	Middle Woodland
18ST102	W-T, SM-T 1	Prehistoric Unknown	Buckley ware	Prehistoric Unknown, 18th
18ST105	W-T, SM-T 3 Elms Property Shoreline	Unknown	Calvert point, possible English Brown, Creamware	Early Woodland, 18th
18ST110	W-T, SM-U 4	Archaic, Late Woodland	Selby Bay point, Levanna/Madison point, Creamware	Middle Woodland, Late Woodland, 18th
18ST112	W-T, SM-U 7	Archaic?	Savannah River point	Late Archaic
18ST125	W-T, SM-N 6	Prehistoric Unknown	Lehigh/Koens-Crispin point, Mockley ware	Late Archaic, Middle Woodland
18ST130	W-T, SM-N 2	Woodland, Middle Woodland?	Rossville or Piscataway point, Mockley ware	Early Woodland, Middle Woodland
18ST144	W-T, SM-A 1	Prehistoric	Popes Creek, Accokeek, Mockley,	Early Woodland,

		Unknown	Townsend, Potomac Creek, and Moyaone wares	Middle Woodland, Late Woodland
18ST145	W-T, SM-A 2	Prehistoric Unknown	Jacks Reef Pentagonal point	Middle Woodland
18ST146	W-T, SM-A 3	Prehistoric Unknown	Townsend ware	Late Woodland
18ST159	W-T, SM-C 8	Prehistoric Unknown, Archaic?	Susquehanna Broadspear & poss Normanskill or Susquehanna Broadspear points	Late Archaic
18ST165	W-T, SM-E 6 (&3)	Woodland	Accokeek ware	Early Woodland
18ST170	W-T, SM-K 1	Unknown	Savannah River point	Late Archaic
18ST175	W-T, SM-L 2	Prehistoric Unknown	Savannah River point	Late Archaic
18ST188	W-T, SM-V 3	Prehistoric Unknown, Archaic?	Lehigh/Koens-Crispin point	Late Archaic
18ST215	W-T, SM-H 10,11	Woodland, Historic Unknown	Accokeek ware, no historic materials present	Early Woodland, Historic Unknown
18ST220	W-T, SM-I 2	Woodland	Accokeek ware	Early Woodland
18ST269	M-17(22) Area 1, St. Clements	Prehistoric Unknown, Early 19th	Piscataway point	Late Archaic, Early Woodland, Early 19th
18ST271	M-17(22) Area 3, St. Clements	Prehistoric Unknown, Late 18th, Early 19th	Selby Bay point	Middle Woodland, Late 18th, Early 19th
18ST275	Green's Point	Woodland	Mockley ware	Middle Woodland
18ST300	Pembroke II	Prehistoric Unknown, 17th	Potomac point	Late Woodland, poss. Contact, 17th
18ST308	Ernest Adams I	Prehistoric Unknown	Whiteware, no diagnostic prehistoric materials	Prehistoric Unknown, 19th
18ST311	Hill View II, St. Mary's River Survey	Early Archaic, Historic Unknown	North American gray stoneware	Early Archaic, 19th
18ST348	Bug	Prehistoric Unknown, Historic	Buckley or Jackfield ware, Colonial bottle, Staffordshire slipware, pipestems with bores ranging from 8/64" to 5/64"	Prehistoric Unknown, Late 17th, Early 18th

		Unknown	with an average of 6.5/64"	
18ST382	Beachville	Late Archaic? Early Woodland?, Historic Unknown	No lithics in collection. Jackfield ware, Pearlware.	Late Archaic?, Early Woodland?, Late 18th, Early 19th

Appendix II.
Display Materials For Public Outreach

Brochure Exterior:

About The Project:

As part of a Certified Local Government grant from the Maryland Historical Trust, the St. Mary's County Historic Preservation Commission (HPC) at the Department of Land Use and Growth Management is seeking to assess the archaeological and historical resources of St. Mary's County.

The HPC, with archaeologists from St. Mary's College of Maryland, have been using Geographic Information Systems (GIS) technology, climate models, land use maps, and aerial photography to identify archaeological sites and potential areas at risk. The greatest threat to archaeological resources in the county comes from sea-level rise due to climate change.

With the help and support of local landowners and members of the St. Mary's County Archaeological Society, previously unknown and unrecorded sites in areas at risk have been discovered.

Brought to you by the following organizations:

Commissioners of St. Mary's County

Historic Preservation Commission

Maryland Historical Trust

St. Mary's College of Maryland

Jefferson Patterson Park & Museum

Climate Change and Archaeology

In St. Mary's County, Maryland

St. Mary's College of Maryland

MARYLAND HISTORICAL TRUST

Brochure Interior:

Sea-Level Rise

By the year 2050, according to studies by the Maryland Department of Natural Resources, sea level around the Chesapeake Bay and its tributaries is slated to rise as high as 2 feet. By the year 2100 this figure goes as high as 5 feet.

Point Lookout with predicted 5 foot inundation due to sea-level rise.

Over 900 archaeological sites are known in St. Mary's County, with a majority of them being within a short distance of tidal waters. Very few of the earliest prehistoric sites still exist in the State of Maryland due to being inundated with water over time.

Erosion

Erosion is a growing threat to archaeological resources, especially in areas along the Chesapeake Bay. Hurricanes and Nor'easters, as they make their way up the east coast, are notorious for eroding banks and destroying property, as well as washing away archaeological sites.

Brick cellar eroded from bank along the Chesapeake Bay after Hurricane Isabel. (Site 18ST791, Photo Courtesy of Ed Chaney, Jefferson Patterson Park and Museum)

How to Help

Have you ever walked along a field and found arrowheads, pottery, or pieces of tobacco pipes? You may have an unrecorded archaeological site on your property!

Are you interested in volunteering to help locate sites in St. Mary's County?

Have you seen anything unusual eroding from banks along the bay and its tributaries?

If you answered yes to any of the above questions, we'd love to hear from you. Please see the contact details below:

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240-925-7548

Appendix III.
Summary of Phase II/III Excavations

Site	Period	Function	Location	Phase
18ST001-029B - West's Field Cluster B	Late Woodland; Contact/Mid 17th-century	Artifact scatter; House site	St. Mary's City	II
18ST001-061 - Rose Croft Plantation	Middle Woodland; 18th-century; 19th to 20th-century	Shell midden; Plantation; Farmstead	St. Mary's City	II
18ST001-112 - Gallows Green	Late Archaic; Early to Late Woodland; 17th & 18th-century; 19th-century	Camp; Hamlets; House sites; Cemetery	St. Mary's City	II
18ST001-118 - St. Mary's City Shipwreck	Mid to late 19th-century	Abandoned boat	St. Mary's City	II
18ST001-133 - Boathouse	17th-century; 20th-century	Landing; Boathouse	St. Mary's City	II
18ST001-205 - NO NAME	Early & Late Archaic and Early & Late Woodland; Late 18th to early 19th-century	Camps; Slave dwelling	St. Mary's City	II
18ST001-206 - NO NAME	Unknown prehistoric; Late 18th to early 19th-century; Early 20th-century	Short term camps; Slave dwelling; Cemetery	St. Mary's City	II
18ST001-207 - NO NAME	Late 18th to early 19th-century	Slave cabin	St. Mary's City	II
18ST001-267 - Ravine Edge	Archaic & Early Woodland; Late Woodland/Contact	Short-term camps; Hamlet/Village	St. Mary's City	II
18ST001-268A - Townhouse Parking Lot A	Late Archaic to Early Woodland	Short-term camp	St. Mary's City	II
18ST001-268B - Townhouse Parking Lot B	Late Archaic/Early Woodland & Late Woodland; Late 18th to early 19th-century	Short-term camp; Posthole	St. Mary's City	II
18ST001-268C - Townhouse Parking Lot C	Unknown prehistoric	Quarry	St. Mary's City	II

18ST001-269 - New Baseball Field	Early and Late Woodland	Short-term camp	St. Mary's City	II
18ST001-640 - Greens Freehold Tract	Middle Woodland; Contact; 17th-century; Late 18th & mid 19th-century	Ceramic production; Hamlet; Plantation; Component	St. Mary's City	II
18ST087 - St. Inigoes Manor	Mid 18th-century; Early 19th-century; Late 19th-century	Manor house; Weaver's house; House	St. Inigoes	II
18ST183 - Bohlen	Late Archaic; 19th to mid 20th-century	Short-term camp; Farmstead	Scotland	II
18ST234 - Wash	Middle Archaic to Late Woodland; 19th to 20th-cent.	Short-term camp; Agricultural building	St. Inigoes	II
18ST245 - Richardson	Middle Woodland; Mid 18th to mid 19th-century	Shell midden; House	Medley's Neck/Potomac	II
18ST254 - Norris I	Early Archaic to Early Woodland; Late 18th to mid 19th-century	Short-term camps; House	Callaway/Great Mills	II
18ST255 - Norris II	Late Archaic; 18th to 19th century	Short-term camp; House	Callaway/Great Mills	II
18ST263 - Watts Mill	Mid 18th to Early 19th-century	Grist mill	Callaway/Great Mills	II
18ST264 - Watts Expectation	Unknown prehistoric; 18th-century	House site	Callaway/Great Mills	II
18ST269 - M-17 (22) Area 1	Unknown prehistoric; Early 19th-century	Lithic scatter; Artifact scatter	Compton/Breton Bay	II
18ST270 - M-17 (22) Area 2	Middle Archaic and Late Woodland; Early 19th-century	Short-term camps; House	Compton/Breton Bay	II
18ST272 - M-17 (22) Area 4	Late Archaic to Middle Woodland; Late 17th and 18th-century	Short-term camp; Refuse midden	Compton/Breton Bay	II
18ST273 - M-17 (22) Area 5	Unknown prehistoric; 18th & 19th-century	Lithic scatter; Pit & artifact scatter	Compton/Breton Bay	II
18ST328 - Gun	Middle Woodland; 18th to 20th-cent.	Short-term camp; Domestic	St. Inigoes	II
18ST331 - Brick	Unknown prehistoric; Early 18th-century	Lithic and shell scatter; Brick scatter/staging area	St. Inigoes	II
18ST333 - Jackson	Late Archaic	Short-term camp	St. Inigoes	II

18ST334 - Puma	Late Archaic/Early Woodland & Late Woodland; 18th-century	Short-term camp; House	St. Inigoes	II
18ST353 - Parron	Middle Archaic & Late Woodland; Contact/17th-century; 18th & 19th-century	Artifact scatter	St. Inigoes	II
18ST362 - Sachs	Late Woodland; Early 19th-century	Lithic scatter; Artifact scatter	St. Inigoes	II
18ST365 - Big Numbers	Early & Late Woodland; 17th-century	Short-term camps; Brick barn	St. Inigoes	II
18ST372 - Long	Early to Late Woodland; 19th to 20th-century	Artifact scatter	St. Inigoes	II
18ST373 - No Mike	Middle Woodland	Short-term camp	St. Inigoes	II
18ST405 - James Road #2	Unknown prehistoric	Artifact scatter	Mechanicsville/Charlotte Hall	II
18ST407 - Swann #2	Early Woodland; 18th-century, late 19th to early 20th-century	Lithic scatter; Artifact scatter	Mechanicsville/Charlotte Hall	II
18ST415 - Country Lakes	Unknown prehistoric	Short term-camp, quarry	Mechanicsville/Chaptico	II
18ST418 - Thomas #1	Early & Late Archaic; Mid 19th-century	Short-term camps; Artifact scatter	Chaptico	II
18ST541 - Spence	Unknown prehistoric; Early 18th-century	Lithic scatter; Farmstead	St. Inigoes	II
18ST548 - Broom Creek II	Unknown prehistoric	Short-term camp	St. Mary's City	II
18ST574 - Grasons Wharf	19th-century; Early 20th-century	Wharf/landing/coaling station; Wreck		II
18ST608 - NO NAME	Unknown prehistoric	Lithic scatter	Great Mills	II
18ST609 - BH-1 & BH-9	Unknown prehistoric; Early/mid 18th-century	Lithic scatter; House site/Plantation	Chaptico	II
18ST619 - Hickory Hills	Late Archaic	Lithic scatter	California	II
18ST624 - AWOIS #7240	19th-century	Wreck	Potomac	II
18ST625 - AWOIS #7241	Mid 19th-century	Wreck	Potomac	II

18ST637 - Lang	Late Archaic & Woodland; 18th-century	Artifact scatters	St. Inigoes	II
18ST643 - Swan Cove Wreck	Mid 19th-century	Shipwreck	Potomac	II
18ST644 - Ragged Point Shipwreck	19th-century	Shipwreck	Potomac	II
18ST647 - Ballast Stone	Possibly 17th-century	Shipwreck	St. Mary's River	II
18ST654 - Solomon's View	Late Woodland; 17th and 19th-century	Short-term camp; Artifact scatters	NAS Patuxent	II
18ST655 - Thomas	Late Archaic and Early to Middle Woodland; Late Woodland; Late 17th and Late 18th-century	Camps; Hamlet/Village; House site/brick clamp	NAS Patuxent	II
18ST656 - Lister	Late Archaic and Early Woodland; Late Woodland; Late 17th to early 18th-century	Short-term camps; Hamlet; House site	NAS Patuxent	II
18ST659 - Harper Creek	Early Archaic to Late Woodland; Late 18th through 19th-century	Camps; Refuse disposal	NAS Patuxent	II
18ST668 - G-1	19th-century	House site	Leonardtown	II
18ST670 - L-1	Late Archaic to Late Woodland; Late 17th to mid 18th-century; 19th to mid 20th-century	Short-term camps; House site; Artifact scatter	Leonardtown	II
18ST673 - P-1	Middle Archaic; Late 18th to mid 19th-century	Short-term camp; Artifact scatter/dump	Leonardtown	II
18ST676 - AA-1	Middle Woodland; Late 18th to mid 19th-century	Base camp/Hamlet; Artifact concentration	Leonardtown	II
18ST677 - AA-2	Late Archaic and Late Woodland; Late 17th-century	Short-term camps; Farmstead	Leonardtown	II
18ST686 - St. Clements Island Midden	Middle & Late Woodland and Contact-period	Shell midden	St. Clement's Island	II
18ST688 - Brick-Makers	Unknown historic	Brick clamp	St. Inigoes	II

18ST704 - Pax River Goodwin Site 1	Late Woodland; 17th through 20th-century	Short-term camp; Plantation	NAS Patuxent	II
18ST707 - Anketills Neck	Late Woodland/Contact; 17th-century	Short-term/Base camp; Farmstead	NAS Patuxent	II
18ST711 - West St. Mary's Manor	17th through 20th-century	Farmstead, structure, cemetery, garden	Drayden	II
18ST712 - Hodgdon House	Early 20th-century	Mansion foundation	NAS Patuxent	II
18ST751 - Rousby (Site #5)	Early & Late Woodland; 17th-century; Late 18th to mid 19th-century	Artifact scatter; House site; Occupation	NAS Patuxent	II
18ST754 - Harper's Creek Site #8	Unknown prehistoric; 18th to 19th-century	Lithic scatter; slave quarter or tenant house	NAS Patuxent	II
18ST792 - GMI-PL-1	Mid 19th to early 20th-century	Artifact scatter	Point Lookout	II
18ST795 - Cammack Site 1	Early Woodland	Short-term camp	Medley's Neck	II
18ST798 - Cammack Site 4	Woodland; Late 17th to early 18th-century	Short-term camp; Tenant house	Medley's Neck	II
18ST802 - Clarks Rest Site A	Late Woodland	Short-term camp	Leonardtown	II
18ST803 - Clarks Rest Site B	Unknown prehistoric; Possibly Archaic	Lithic scatter; Camp	Leonardtown	II
18ST829 - RCGA Area 1, Locus 1	18th through 20th-century; Early 20th-century	Artifact scatter; Educational	Leonardtown	II
18ST001-013 - St. Mary's Town Center	Early through Late Archaic; Early & Late Woodland; 17th-century; 19th-century	Camps; Villages; Town; Farmstead	St. Mary's City	III
18ST001-022 - John Hicks	Late Archaic, Early Woodland and unknown Woodland; Mid 18th-century	Camps; Plantation	St. Mary's City	III
18ST001-023 - St. Johns	17th-century	Plantation	St. Mary's City	III
18ST001-029A - West's Field Cluster A	Late 18th to early 19th-century	Slave quarter or tenant	St. Mary's City	III
18ST001-029C - West's Field Cluster C	Unknown Woodland; 18th-century	Artifact scatter; Occupation	St. Mary's City	III

18ST001-029D - West's Field Cluster D	Early & Late Woodland/Contact	Palisade	St. Mary's City	III
18ST001-103 - Brick Chapel	Early 17th to Late 18th-century	Church/Cemetery	St. Mary's City	III
18ST016 - Newtown	Middle & Late Woodland; Early-Late 18th-century	Artifact scatter (prehistoric); Manor house, church, cemetery (historic)	Newtown Neck	III
18ST053 - Abell's Wharf	Early-Late Archaic; Early-Late Woodland; Late 17th to mid 18th-century	Short-term camp; Shell midden; Farmstead	Medley's Neck/Breton Bay	III
18ST054 - Sotterley Plantation	Unknown Archaic; Late Woodland; Early 18th-, Mid 19th-century	Unknown prehistoric; Plantation; Slave quarter	Hollywood along Patuxent	III
18ST061 - Point Lookout Lighthouse/Hospital	Mid 19th-century	Lighthouse/Hospital	Point Lookout	III
18ST071 - Ocean Hall	Archaic-Woodland; Late Woodland; Mid-late 17th-century; Early 18th-century	Camps & shell midden; Village; Domestic; House	Bushwood	III
18ST075 - Upper Notley	Early 18th-century; Mid-late 18th century	House site; Standing structure	Chaptico	III
18ST271 - M-17 (22) Area 3	Unknown prehistoric; Late 18th to earl 19th-century	Lithic scatter; Farmstead	Compton/Breton Bay	III
18ST318 - Stokes	Mid to late 19th-century	Tenant house	St. Mary's City	III
18ST330 - Chapel	Late Archaic & Late Woodland; Early to mid 18th-century	Short-term camp; Jesuit house/chapel	St. Inigoes	III
18ST390 - Mattapany-Sewall	Early Archaic, Early & Late Woodland; 17th-century	Short-term camps; Manor house & armory	NAS Patuxent	III
18ST399 - Susquehanna	Mid 18th-century; Mid 19th-century	House site; Farmstead	NAS Patuxent	III
18ST400 - Charlotte Hall Academy	Late 18th to 20th-century	Military academy	Charlotte Hall	III
18ST550 - St. Joseph's Manor	18th to 19th-century	House site	Lexington Park/Patuxent	III
18ST569 - Myrtle Point	Early & Late Archaic and Early, Middle, & Late	Short-term camps or base camps	California/Patuxent	III

	Woodland			
18ST570 - Thomas Point	Late Archaic and Middle & Late Woodland	Shell midden	California/Patuxent	III
18ST634 - Aud	Early Archaic to Late Woodland	Short-term camps	Great Mills/Drayden	III
18ST642 - NAVAIR	Early & Middle Archaic and Early Woodland; Mid to late 18th-century	Lithic scatter; Slave quarter	NAS Patuxent	III

Appendix IV.
Field Survey Catalogs

Clifton Site - 18ST794 – Surface Survey Catalog

Latitude	Longitude	Catalog
38.260041	-76.787301	1 quartzite FCR or core
38.260051	-76.788332	1 aqua coke bottle, shell scatter
38.260075	-76.789059	Shell scatter
38.260078	-76.787701	1 quartz shatter, 1 plastic button
38.260260	-76.786869	1 coke bottle, 1 large quartzite FCR
38.260327	-76.787717	2 poss creamware, shell scatter
38.260331	-76.788673	Shell scatter
38.260335	-76.787524	Shell scatter
38.260339	-76.787880	1 faceted porcelain, shell scatter
38.260348	-76.788387	1 creamware, 1 thin olive green bottle glass, shell scatter
38.260367	-76.788037	1 red brick, shell scatter
38.260369	-76.787048	1 quartzite FCR
38.260393	-76.786561	1 red sponge painted ref e/w
38.260408	-76.786440	1 quartz tertiary flake, brick scatter
38.260434	-76.786411	1 red brick
38.260481	-76.787800	1 plain porcelain, 1 creamware
38.260550	-76.786430	1 creamware, 1 blue edgeware
38.260592	-76.786942	1 blue painted whiteware
38.260614	-76.786481	1 red pasted dark green LGEW
38.260615	-76.786390	1 faceted glass tableware
38.260616	-76.786229	1 aqua glass bottle rim
38.260627	-76.786440	1 glazed red brick
38.260648	-76.786319	1 blue painted porcelain
38.260679	-76.787515	1 plain porcelain
38.260697	-76.787643	Shell scatter
38.260729	-76.786317	1 creamware, 1 WCTP bowl poss relief molded
38.260830	-76.786945	1 quartzite FCR
38.260840	-76.786842	1 quartzite FCR, 1 red pasted thick white LGEW
38.260853	-76.788566	Shell scatter
38.260860	-76.788277	Shell scatter
38.260860	-76.786374	1 orange pasted coarse e/w
38.260868	-76.786468	1 aqua glass bottle rim
38.260880	-76.787638	1 quartz secondary flake
38.260893	-76.786532	1 orange pasted LGEW
38.261116	-76.786427	1 creamware
38.261124	-76.788411	1 red brick, shell scatter
38.261143	-76.786865	1 FCR

38.261145	-76.786144	1 red brick
38.261155	-76.788055	Shell scatter
38.261159	-76.785816	1 quartzite core
38.261167	-76.787805	Shell scatter
38.261167	-76.786000	1 UID whiteware
38.261178	-76.786720	1 creamware
38.261213	-76.786029	1 aqua glass
38.261268	-76.786238	Shell scatter
38.261270	-76.786908	1 poss. Whieldonware
38.261296	-76.786563	1 creamware
38.261315	-76.785889	Shell scatter
38.261375	-76.786414	1 red brick bat, brick scatter
38.261387	-76.786207	1 blue painted pearlware, shell scatter
38.261395	-76.786653	1 poss. Creamware
38.261400	-76.786550	1 FCR, shell scatter
38.261403	-76.786265	1 large red brick, brick scatter
38.261623	-76.786651	1 large quartzite FCR
38.261625	-76.787838	Shell scatter
38.261665	-76.786207	1 red brick, brick scatter
38.261668	-76.787533	1 quartzite FCR
38.261681	-76.786496	1 red brick, brick scatter, shell scatter
38.261745	-76.786655	1 large red brick, brick scatter, shell scatter
38.261745	-76.786750	Shell scatter
38.261785	-76.786999	1 Piscataway or Rossville point
38.261834	-76.785992	1 whiteware, 1 red brick, shell scatter
38.261854	-76.786186	Shell scatter
38.261866	-76.786481	1 red brick
38.261983	-76.785961	1 quartz tertiary flake, 1 quartzite FCR
38.261996	-76.786465	Shell scatter
38.262107	-76.786919	Shell scatter
38.262152	-76.785861	Shell scatter
38.262197	-76.786769	Shell scatter
38.262235	-76.786140	Shell scatter
38.262256	-76.786923	1 large quartz FCR, shell scatter

18ST885 - Montfort 1 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.260592	-76.789959	Shell Scatter
38.260852	-76.790212	1 quartz secondary flake, shell scatter
38.260859	-76.789019	1 quartz tertiary flake, shell scatter

38.260889	-76.789432	1 poss. FCR, shell scatter
38.261011	-76.790531	1 quartzite FCR
38.261090	-76.790728	Shell scatter
38.261128	-76.789764	1 quartzite FCR
38.261375	-76.789911	Shell scatter
38.261389	-76.788593	1 quartz shatter, shell scatter
38.261429	-76.789618	Shell scatter
38.261442	-76.789101	Shell scatter
38.261538	-76.789903	1 quartz biface
38.261792	-76.788775	Shell scatter
38.261913	-76.788625	Shell scatter
38.261953	-76.788750	Shell scatter
38.261957	-76.788889	2 milk glass
38.262221	-76.789008	Shell scatter
38.262386	-76.788973	Shell scatter
38.262575	-76.789062	Shell scatter
38.262590	-76.788847	1 quartzite core or FCR
38.262609	-76.788588	Shell scatter
38.262817	-76.788353	1 chert tertiary flake

18ST886 - Montfort 2 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.262449	-76.786768	Shell scatter
38.262633	-76.786638	1 red brick
38.262672	-76.786044	Shell scatter
38.262675	-76.785890	1 quartzite core
38.262680	-76.786264	1 quartzite FCR
38.262818	-76.786712	1 red brick
38.263524	-76.786246	1 oyster shell
38.263580	-76.786773	2 oyster shell
38.263586	-76.786013	1 red brick
38.263589	-76.786908	1 red brick
38.263610	-76.786361	1 oyster shell
38.263615	-76.787274	1 quartzite FCR
38.263814	-76.786773	1 plain porcelain
38.263827	-76.786392	1 jasper shatter
38.263845	-76.786092	1 bog iron, 1 quartzite scraper

18ST887 - Montfort 3 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.264380	-76.785996	light oyster scatter
38.264450	-76.786080	light-moderate oyster scatter
38.264451	-76.786226	1 creamware, moderate-heavy oyster scatter
38.264460	-76.785834	light oyster scatter
38.264467	-76.786137	light-moderate oyster scatter
38.264505	-76.786232	1 red brick, moderate-heavy oyster scatter
38.264559	-76.785992	1 worked quartzite cobble, light-moderate oyster scatter
38.264570	-76.786243	1 creamware or pearlware, 1 red brick, moderate-heavy oyster scatter
38.264585	-76.786390	moderate oyster scatter
38.264606	-76.785683	light-moderate oyster scatter
38.264672	-76.786226	1 quartzite FCR, moderate oyster scatter
38.264709	-76.786479	1 red brick, moderate oyster scatter
38.264709	-76.785762	3 red brick, light-moderate oyster scatter
38.264732	-76.785928	1 quartz core, 2 red brick, light-moderate oyster scatter
38.264741	-76.786520	1 WCTP stem 4 or 5/64ths, moderate oyster scatter
38.264792	-76.785983	1 UID square nail, light-moderate oyster scatter
38.264816	-76.786054	1 quartzite FCR, light-moderate oyster scatter
38.264832	-76.786173	1 WCTP bowl and rim, undecorated, moderate oyster scatter
38.264841	-76.785461	1 red brick, moderate oyster scatter
38.264850	-76.785353	1 quartz tertiary flake, moderate oyster scatter
38.264908	-76.786176	1 quartzite scraper, moderate oyster scatter
38.264920	-76.786331	2 red brick, moderate oyster scatter
38.264926	-76.785431	1 red brick, moderate oyster scatter
38.264927	-76.785492	1 pearlware base sherd, moderate oyster scatter
38.264952	-76.786417	1 red brick, moderate oyster scatter
38.264978	-76.786908	light-moderate oyster scatter
38.265008	-76.786794	moderate oyster scatter
38.265029	-76.785712	moderate oyster scatter
38.265073	-76.787150	light oyster scatter
38.265101	-76.785800	1 quartz FCR, light-moderate oyster scatter
38.265105	-76.786494	1 red pasted coarse earthenware body sherd, brown and yellow glazed, moderate-heavy oyster scatter
38.265144	-76.786671	1 quartzite FCR, moderate oyster scatter
38.265160	-76.785359	1 red brick, very light oyster scatter
38.265163	-76.785918	light-moderate oyster scatter
38.265172	-76.787183	light oyster scatter
38.265173	-76.785471	1 red brick, very light oyster scatter
38.265183	-76.786073	1 worked quartzite cobble, light oyster scatter
38.265190	-76.785559	1 red brick, brick scatter nearby, very light oyster scatter

38.265238	-76.785062	1 oyster shell
38.265241	-76.785594	1 quartzite FCR, light oyster scatter
38.265253	-76.787201	light oyster scatter
38.265309	-76.787540	light oyster scatter
38.265312	-76.786300	light oyster scatter
38.265360	-76.787169	very light oyster scatter
38.265372	-76.785779	light-moderate oyster scatter
38.265425	-76.786388	light oyster scatter
38.265443	-76.786068	light oyster scatter
38.265530	-76.786279	light oyster scatter
38.265551	-76.787958	light oyster scatter
38.265565	-76.785637	1 oyster shell
38.265637	-76.786310	light oyster scatter
38.265645	-76.785213	very light-light oyster scatter
38.265646	-76.785916	1 oyster shell
38.265659	-76.787609	light oyster scatter
38.265681	-76.786380	very light oyster scatter
38.265770	-76.786593	1 oyster shell
38.265820	-76.785469	very light-light oyster scatter
38.265825	-76.784785	1 plain porcelain, modern
38.265831	-76.787862	very light oyster scatter
38.265924	-76.785666	light oyster scatter
38.265931	-76.787343	1 oyster shell
38.265953	-76.784702	1 plain porcelain, modern
38.265989	-76.788145	1 quartz secondary flake
38.266001	-76.785815	light oyster scatter
38.266045	-76.785942	very light oyster scatter
38.266068	-76.786529	light oyster scatter
38.266143	-76.786687	light-moderate oyster scatter
38.266182	-76.788453	very light oyster scatter
38.266200	-76.786154	very light oyster scatter
38.266253	-76.786188	light oyster scatter
38.266264	-76.786924	light oyster scatter
38.266287	-76.787008	1 oyster shell
38.266293	-76.786316	light-moderate oyster scatter
38.266408	-76.785802	1 oyster shell
38.266448	-76.787249	1 oyster shell
38.266460	-76.786595	very light oyster scatter
38.266463	-76.786728	light-moderate oyster scatter
38.266468	-76.785407	1 quartzite FCR, other FCR nearby
38.266468	-76.785362	very light oyster scatter

38.266514	-76.785467	very light oyster scatter
38.266574	-76.786060	1 quartz shatter, very light oyster scatter
38.266667	-76.786985	light oyster scatter
38.266815	-76.787264	1 quartzite shatter or primary flake

18ST888 - Montfort 4 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.266995	-76.787475	2 oyster shell
38.267298	-76.787326	light oyster scatter
38.267339	-76.787449	light-moderate oyster scatter
38.267365	-76.787594	light oyster scatter
38.267369	-76.786129	1 quartzite FCR
38.267490	-76.787805	light oyster scatter
38.267490	-76.786315	1 oyster shell
38.267515	-76.787349	light oyster scatter
38.267640	-76.787497	light oyster scatter
38.267658	-76.786237	1 oyster shell
38.267714	-76.788233	light-moderate oyster scatter
38.267741	-76.787738	light-moderate oyster scatter
38.267788	-76.788346	light oyster scatter
38.267831	-76.787876	light oyster scatter
38.267916	-76.787210	light oyster scatter
38.267984	-76.787341	light oyster scatter
38.268012	-76.786957	1 quartzite FCR, 1 oyster shell
38.268055	-76.787413	light oyster scatter
38.268119	-76.787005	very light oyster scatter
38.268162	-76.787291	light oyster scatter
38.268217	-76.786207	1 quartz shatter, worked
38.268237	-76.786967	light oyster scatter
38.268239	-76.787439	light-moderate oyster scatter
38.268298	-76.786996	light oyster scatter
38.268355	-76.786535	1 oyster shell
38.268391	-76.787640	1 oyster shell
38.268422	-76.786645	1 oyster shell
38.268472	-76.787233	1 quartz biface, light oyster scatter
38.268534	-76.786781	moderate-heavy oyster scatter
38.268557	-76.786904	moderate oyster scatter
38.268638	-76.786739	moderate oyster scatter
38.268646	-76.786995	light oyster scatter
38.268715	-76.786161	light oyster scatter

38.268743	-76.786312	moderate oyster scatter
38.268867	-76.785161	very light oyster scatter
38.268927	-76.785278	very light oyster scatter
38.268967	-76.785909	very light oyster scatter
38.268976	-76.786727	light oyster scatter
38.269004	-76.785399	light oyster scatter
38.269336	-76.786697	1 UID quartz biface
38.269391	-76.786135	1 UID quartz biface, light oyster scatter

18ST51 – Longview Beach/Lower Brambly 1 site - Surface Survey Catalog

Lat	Long	Catalog
38.293341	-76.814634	2 red brick fragments, light red brick scatter; moderate shell scatter
38.293403	-76.814638	2 quartz shatter; 1 quartzite fire cracked rock; 2 colorless glass body fragments; 1 red brick fragment, light red brick scatter; moderate shell scatter
38.293468	-76.814380	1 unidentified white refined earthenware body sherd; light red brick scatter; very light shell scatter
38.293485	-76.814600	1 quartz core or unidentified biface; 1 quartzite tertiary flake; 1 brown pasted quartz tempered micaceous Potomac Creek or Moyaone body sherd; 3 red brick fragments, light red brick scatter; heavy shell scatter
38.293493	-76.814506	1 quartz tertiary flake; 1 unidentified green stone biface; 1 very light brown pasted shell tempered Townsend plain body sherd, smooth; 1 aqua colored glass body fragment; 2 red brick fragments; moderate to heavy shell scatter
38.293505	-76.814346	1 quartz core; light to moderate shell scatter
38.293571	-76.814736	2 quartz tertiary flakes; 1 red brick fragment; heavy to very heavy shell scatter
38.293694	-76.814639	1 quartzite fire cracked rock; heavy shell scatter
38.293778	-76.814778	1 red brick fragment; heavy to very heavy shell scatter
38.293805	-76.814055	1 quartzite fire cracked rock, large; 1 brown pasted quartz/sand tempered Potomac Creek or Moyaone cord marked body sherd; occasional shell
38.293849	-76.814090	2 quartz tertiary flakes, utilized; occasional shell
38.293865	-76.814759	1 light brown pasted shell tempered Townsend plain body sherd, 0.3" thick; very heavy shell scatter
38.293869	-76.814825	1 orange pasted black lead glazed earthenware body sherd; heavy to very heavy shell scatter
38.293888	-76.814562	1 large red brick fragment; moderate to heavy shell scatter
38.293932	-76.814872	1 quartzite core or fire cracked rock; heavy to very heavy shell scatter
38.293981	-76.814833	1 quartzite shatter, 1 unidentified light brown pasted quartz tempered body sherd, undecorated; moderate to heavy shell
38.294003	-76.814962	1 quartz shatter or fire cracked rock; moderate to heavy shell scatter
38.294010	-76.814323	1 quartz tertiary flake; occasional shell
38.294094	-76.813887	1 quartzite fire cracked rock
38.294128	-76.815069	1 quartzite fire cracked rock; 1 red brick fragment; moderate shell scatter
38.294147	-76.814474	1 quartzite fire cracked rock; 1 large red brick fragment; light to moderate shell scatter, approximate edge of shell midden
38.294148	-76.813164	1 quartzite fire cracked rock; occasional shell

38.294176	-76.813918	1 large red brick fragment
38.294193	-76.812850	1 red brick fragment
38.294218	-76.813944	1 quartzite core
38.294228	-76.813313	2 quartzite fire cracked rocks
38.294233	-76.815708	1 possible mill stone, 75% complete, submerged in water. Coordinate take 15 feet away
38.294237	-76.814563	1 red brick fragment; 1 unidentified iron fragment; light to moderate shell scatter
38.294239	-76.814632	1 quartzite shatter; moderate shell scatter
38.294269	-76.815228	2 quartz shatter or fire cracked rock; moderate to heavy shell scatter
38.294290	-76.813456	1 red brick fragment
38.294292	-76.813995	1 red and buff pasted agate like coarse earthenware body spall
38.294336	-76.815726	1 plain porcelain body sherd; 2 aqua colored glass body fragments, worn; 2 colorless glass body fragments, worn
38.294420	-76.814771	1 quartzite fire cracked rock; 1 very light brown pasted quartz tempered Accokeek body sherd; moderate shell scatter
38.294424	-76.815489	1 unidentified brown pasted shell tempered native ceramic body sherd, impressed, possibly Townsend, worn with shell leached out; heavy to very heavy shell scatter
38.294429	-76.814059	1 quartzite fire cracked rock; occasional shell
38.294453	-76.814133	1 quartz shatter; occasional shell
38.294463	-76.813585	1 quartzite biface; 1 quartzite fire cracked rock
38.294470	-76.813785	1 red brick fragment
38.294504	-76.815580	1 quartz shatter; very heavy shell scatter
38.294515	-76.813296	1 quartz tertiary flake
38.294520	-76.815033	1 quartzite fire cracked rock; heavy to very heavy shell scatter
38.294570	-76.815067	1 thick dark brown pasted sand and quartz tempered Accokeek body sherd, poorly mixed; very heavy shell scatter
38.294578	-76.814294	1 quartzite scraper; 1 red brick fragment; light shell scatter
38.294609	-76.814401	1 quartzite fire cracked rock; moderate to heavy shell scatter
38.294640	-76.813503	1 quartz shatter
38.294657	-76.815808	1 quartzite fire cracked rock; very heavy shell scatter
38.294738	-76.815894	2 quartzite fire cracked rocks; 1 quartz shatter; very heavy shell scatter
38.294739	-76.815355	1 quartzite scraper; 1 unidentified brown pasted shell tempered native ceramic body sherd, probably Townsend plain, well mixed and thin; very heavy shell scatter
38.294752	-76.814521	1 quartz shatter; 2 quartzite fire cracked rocks; heavy shell scatter
38.294769	-76.813001	1 red brick fragment
38.294794	-76.814261	1 red brick fragment; moderate shell scatter
38.294802	-76.814550	1 quartz shatter; 1 thin light brown pasted shell tempered Townsend plain body sherd; heavy to very heavy shell scatter
38.294830	-76.814633	1 large red brick fragment; heavy to very heavy shell scatter
38.294836	-76.813862	1 quartz primary flake; 1 machine-made red brick fragment
38.294853	-76.814743	1 brown pasted sand tempered Moyaone cord-marked body sherd; 1 brown pasted quartz tempered Potomac Creek plain body sherd; heavy to very heavy shell scatter
38.294862	-76.816111	1 quartz uniface; very heavy shell scatter
38.294870	-76.816159	1 quartzite fire cracked rock; very heavy shell scatter

38.294881	-76.815480	1 quartzite fire cracked rock; 1 red pasted quartz and sand tempered Popes Creek net impressed body sherd; very heavy shell scatter
38.294910	-76.814410	1 quartz uniface; 1 quartz shatter; moderate to heavy shell scatter
38.294912	-76.813259	1 quartz tertiary flake, utilized
38.294913	-76.814764	1 quartz shatter; 2 quartzite fire cracked rock; heavy to very heavy shell scatter
38.294929	-76.815618	1 unidentified light brown pasted shell tempered native ceramic body sherd; very heavy shell scatter
38.294942	-76.813400	1 quartz shatter
38.295008	-76.814080	1 quartzite tertiary flake; occasional shell
38.295010	-76.812866	1 quartzite fire cracked rock
38.295011	-76.815667	1 quartzite biface; 1 quartz tertiary flake; 1 quartz shatter; 3 quartzite fire cracked rocks; 1 thick brown to red pasted sand and quartz tempered Popes Creek net impressed body sherd; very heavy shell scatter
38.295016	-76.814848	1 quartz shatter; very heavy shell scatter
38.295036	-76.816407	1 quartz shatter; 1 unidentified white refined earthenware body sherd; 1 ironstone ceramic body sherd; 1 green glazed refined earthenware body sherd; 1 dark/true blue glass body fragment; 1 colorless glass body fragment; very heavy shell scatter
38.295057	-76.814933	1 quartzite tertiary flake; 1 quartz primary flake; very heavy shell scatter
38.295061	-76.815855	1 quartzite fire cracked rock; very heavy shell scatter
38.295076	-76.816541	1 quartzite fire cracked rock; 1 modern flower pot fragment with tiles set in exterior; very heavy shell scatter
38.295103	-76.814286	3 red brick fragments; moderate shell scatter
38.295140	-76.814382	1 large handmade red brick fragment; moderate to heavy shell scatter
38.295142	-76.815999	2 quartzite fire cracked rocks; very heavy shell scatter
38.295155	-76.816634	2 quartzite fire cracked rocks; very heavy shell scatter
38.295156	-76.814956	2 thin light brown pasted shell tempered Townsend plain body sherds; very heavy shell scatter
38.295156	-76.814831	1 quartz biface; very heavy shell scatter
38.295171	-76.814888	1 quartzite fire cracked rock; very heavy shell scatter
38.295176	-76.813196	1 red brick fragment
38.295193	-76.816148	1 quartzite shatter; very heavy shell scatter
38.295200	-76.816694	2 quartzite fire cracked rocks; 1 quartz shatter; very heavy shell scatter
38.295221	-76.815095	1 quartz tertiary flake; 1 quartzite tertiary flake; very heavy shell scatter
38.295226	-76.813827	1 buff pasted Staffordshire slipware body sherd w/ possible fine combed design
38.295257	-76.815003	1 quartzite fire cracked rock; 1 red brick fragment; very heavy shell scatter
38.295271	-76.812870	2 red brick fragments
38.295282	-76.814525	1 quartzite tertiary flake; heavy shell scatter
38.295284	-76.815207	1 light brown pasted shell tempered Townsend plain body sherd; very heavy shell scatter
38.295304	-76.813872	1 dark olive green case bottle body fragment, late
38.295307	-76.813997	2 glazed red brick fragments; occasional shell
38.295311	-76.814576	1 quartzite secondary flake; moderate to heavy shell scatter
38.295318	-76.816795	2 quartzite fire cracked rocks; very heavy shell scatter
38.295320	-76.816278	2 quartzite fire cracked rocks; 1 unidentified brownish red pasted shell tempered plain native ceramic body sherd, possibly Mockley; very heavy shell scatter

38.295323	-76.811719	1 light brown pasted shell tempered Townsend plain body sherd, thin
38.295348	-76.816880	1 quartzite fire cracked rock; 2 brown pasted shell tempered plain Townsend ware body sherds; very heavy shell scatter
38.295355	-76.814825	1 brown pasted shell tempered Townsend plain body sherd; 1 red brick fragment; moderate to heavy shell scatter
38.295357	-76.816901	1 quartzite fire cracked rock; very heavy shell scatter
38.295372	-76.816306	1 quartz secondary flake; 1 quartzite fire cracked rock; very heavy shell scatter
38.295374	-76.815199	1 brown pasted shell tempered Townsend plain body sherd; 1 red brick fragment; very heavy shell scatter
38.295376	-76.814709	1 quartz shatter; 1 colorless glass body fragment; 2 red brick fragments; moderate to heavy shell scatter
38.295403	-76.816434	1 quartz scraper or unidentified biface with cortex; 1 quartz tertiary flake; very heavy shell scatter with thick large whole shells
38.295414	-76.814199	1 quartz shatter; 1 quartzite fire cracked rock; occasional shell
38.295425	-76.814888	1 glazed red brick fragment; moderate to heavy shell scatter
38.295453	-76.813585	1 red brick fragment
38.295463	-76.814256	2 red brick fragment; occasional shell
38.295466	-76.815691	1 unidentified light brown pasted shell tempered native ceramic body sherd, possible Mockley net impressed; light red brick scatter; very heavy shell scatter
38.295471	-76.813211	1 quartzite fire cracked rock; 1 shell fragment
38.295472	-76.815797	1 quartz tertiary flake; very heavy shell scatter
38.295474	-76.815597	1 unidentified small light brown pasted shell tempered native ceramic body sherd; light red brick scatter; heavy to very heavy shell scatter
38.295494	-76.815313	1 quartz shatter; very heavy shell scatter
38.295522	-76.816536	2 quartzite fire cracked rocks; very heavy shell scatter with thick large whole shells
38.295530	-76.816641	1 quartz tertiary flake; very heavy shell scatter with thick large whole shells
38.295534	-76.815519	1 large brown pasted shell tempered Townsend or Yeocomico plain body sherd, smoothed; very heavy shell scatter
38.295540	-76.812242	1 red brick fragment
38.295545	-76.812719	1 red brick fragment
38.295556	-76.815945	1 quartzite fire cracked rock; 1 unidentified light brown pasted shell tempered native ceramic body sherd, plain; very heavy shell
38.295562	-76.813821	1 red pasted black lead-glazed earthenware body sherd, colonial
38.295566	-76.814988	1 quartz primary flake; moderate to heavy shell scatter
38.295574	-76.816672	1 quartzite fire cracked; 1 light brown pasted shell tempered thin Townsend plain body sherd; very heavy shell scatter with thick large whole shells
38.295575	-76.815519	1 quartz tertiary flake; 1 light brown pasted shell tempered Townsend cord marked body sherd; very heavy shell scatter
38.295577	-76.815832	2 red brick fragments; very heavy shell scatter
38.295585	-76.814429	1 hand painted soft paste porcelain teacup rim sherd, geometric design, 18th century; 1 red brick fragment; light shell scatter
38.295602	-76.817691	1 white salt-glazed stoneware rim sherd, scalloped with diamond, diaper pattern; heavy shell scatter
38.295605	-76.815617	1 large red brick fragment; heavy to very heavy shell scatter
38.295611	-76.814542	1 quartz tertiary flake; 1 quartz shatter; 1 quartzite fire cracked rock; very light red brick scatter; light shell scatter
38.295622	-76.815868	1 light brown pasted quartz tempered Moyaone body sherd, micaceous,

		undecorated; very heavy shell scatter
38.295628	-76.816723	1 quartzite fire cracked rock; very heavy shell scatter
38.295628	-76.815596	1 quartz shatter; light red brick scatter; heavy to very heavy shell scatter
38.295629	-76.812751	1 red brick fragment; 1 shell fragment
38.295650	-76.816132	1 quartzite fire cracked rock; 3 unidentified light brown pasted shell tempered native ceramic body sherds, 2 plain 1 impressed; very heavy shell
38.295659	-76.815668	1 quartzite fire cracked rock; light red brick scatter; heavy to very heavy shell scatter
38.295665	-76.813912	Very light red brick scatter
38.295665	-76.812186	1 quartz fire cracked rock
38.295668	-76.815685	Light red brick scatter; heavy to very heavy shell scatter
38.295686	-76.815140	1 red brick fragment; moderate shell scatter
38.295689	-76.812881	1 quartzite fire cracked rock; 1 red brick fragment
38.295692	-76.815691	1 large red brick fragment; heavy to very heavy shell scatter
38.295692	-76.812589	1 Jasperware body sherd, blue dry-bodied stoneware, embossed
38.295702	-76.814683	1 quartz core; 1 buff pasted brown salt-glazed stoneware body sherd, like English Brown; 3 red brick fragments; light shell scatter
38.295712	-76.816860	1 quartzite fire cracked rock; very heavy shell scatter
38.295718	-76.812254	1 red brick fragment
38.295725	-76.813485	1 red brick fragment
38.295730	-76.815757	1 large red brick fragment; heavy to very heavy shell scatter
38.295730	-76.815259	Light machine-made red brick scatter; 1 iron wire nail fragment; moderate shell scatter
38.295739	-76.814751	1 quartz tertiary flake; light shell scatter
38.295747	-76.815402	1 unidentified light brown to orange pasted shell tempered native ceramic body sherd, possibly Mockley impressed; machine-made red brick scatter; moderate shell scatter
38.295750	-76.816392	1 quartz shatter; very heavy shell scatter
38.295752	-76.815823	1 large red brick fragment; heavy to very heavy shell scatter
38.295759	-76.815879	1 large red brick fragment; heavy shell scatter
38.295760	-76.816420	1 quartz core; 1 quartz shatter; 1 red brick fragment; very heavy shell scatter
38.295770	-76.812988	1 quartzite fire cracked rock; 1 red brick fragment; 1 shell fragment
38.295791	-76.812391	3 red brick fragments
38.295807	-76.814854	2 quartz tertiary flakes; 2 quartzite fire cracked rocks; light shell scatter
38.295820	-76.816490	1 quartzite core; 2 quartzite fire cracked rocks; very heavy shell scatter
38.295834	-76.813158	1 plain porcelain base sherd
38.295853	-76.813801	1 quartzite fire cracked rock; 1 red brick fragment; 1 shell fragment
38.295861	-76.814959	1 quartz secondary flake; light shell scatter
38.295864	-76.817090	1 quartzite fire cracked rock; very heavy shell scatter
38.295876	-76.815446	1 quartzite fire cracked rock; light red brick scatter; moderate shell scatter
38.295885	-76.816660	1 quartz shatter; 1 red brick fragment; very heavy shell scatter
38.295890	-76.813225	2 red brick fragments
38.295894	-76.814261	1 red brick fragment

38.295920	-76.814967	1 quartz tertiary flake; 1 quartzite fire cracked rock; light shell scatter
38.295922	-76.813341	2 red brick fragments
38.295926	-76.812573	1 quartzite fire cracked rock
38.295938	-76.817164	1 quartzite fire cracked rock; very heavy shell scatter
38.295940	-76.816691	1 quartz tertiary flake; very heavy shell scatter
38.295953	-76.816031	1 red brick fragment; moderate shell scatter
38.295962	-76.815541	1 quartzite secondary flake; 1 brown pasted shell tempered Townsend plain body sherd; 1 red brick fragment; light to moderate shell scatter
38.295992	-76.813932	1 red brick fragment; occasional shell
38.295999	-76.815676	1 chert core; 2 red brick fragments; light to moderate shell scatter
38.296000	-76.815621	1 quartzite tertiary flake; 2 red brick fragments; light to moderate shell scatter
38.296003	-76.818265	Very heavy shell scatter
38.296011	-76.814427	1 quartzite fire cracked rock
38.296049	-76.814061	1 red brick fragment; occasional shell
38.296050	-76.815164	1 quartz tertiary flake; 1 quartz secondary flake; 1 quartz shatter; very light red brick scatter; very light shell scatter
38.296068	-76.818344	2 quartzite fire cracked rocks; very heavy shell scatter
38.296083	-76.815263	1 quartz tertiary flake, 1 quartz shatter or fire cracked rock; 2 red brick fragments; very light shell scatter
38.296093	-76.814172	1 quartzite cobble, worked; 1 red glazed brick fragment
38.296095	-76.818435	1 quartzite fire cracked rock; 6 red brick fragments; very heavy shell scatter
38.296095	-76.813541	1 quartz shatter; occasional shell
38.296098	-76.814178	2 red brick fragments
38.296107	-76.818379	1 chert fire cracked rock; very heavy shell scatter
38.296111	-76.816891	1 quartz primary flake; 1 unidentified light brown pasted shell tempered thin native ceramic body sherd, possibly undecorated; 1 charcoal fragment; very heavy shell scatter
38.296115	-76.816365	1 quartz tertiary flake; 1 red brick fragment; moderate shell scatter
38.296118	-76.811806	1 red brick fragment
38.296120	-76.818464	1 chert shatter; 1 salmon brick or daub fragment; very heavy shell scatter
38.296133	-76.815327	1 quartz shatter; 1 quartzite fire cracked rock; 1 red brick fragment; very light shell scatter
38.296137	-76.816441	1 molded aqua colored glass body fragment; moderate shell scatter
38.296138	-76.814648	1 red brick fragment
38.296145	-76.818484	1 quartzite core; 1 quartzite fire cracked rock; 1 orange-salmon brick; very heavy shell scatter
38.296149	-76.815894	1 quartz uniface; light shell scatter
38.296166	-76.813644	3 red brick fragments, light brick scatter
38.296181	-76.815916	1 olive green bottle glass body fragment, thin; 1 dark olive green bottle glass base fragment with straight profile; occasional shell
38.296200	-76.818149	1 quartzite fire cracked rock or core; light charcoal scatter; heavy shell scatter
38.296224	-76.818515	1 unidentified light brown-orange pasted, shell tempered, net/fabric impressed body sherd, probably Mockley; very heavy shell scatter
38.296231	-76.814184	1 quartz shatter
38.296242	-76.814855	1 red brick fragment

38.296247	-76.818122	1 quartzite fire cracked rock; 1 daub or red brick fragment; very heavy shell scatter
38.296247	-76.815457	1 quartz shatter; 1 quartzite fire cracked rock; 5 red brick fragments; very light shell scatter
38.296249	-76.813702	1 quartz shatter; 1 red brick fragment
38.296263	-76.818606	1 quartzite fire cracked rock; very heavy shell scatter
38.296268	-76.816593	Light to moderate shell scatter
38.296274	-76.814320	1 red brick fragment; 1 shell fragment
38.296277	-76.812467	1 red brick fragment
38.296292	-76.818345	1 quartzite projectile point, Guilford type
38.296294	-76.814947	1 red brick fragment, occasional shell
38.296311	-76.812529	1 red brick fragment
38.296324	-76.814327	1 red brick fragment, adjacent to hunting processing area
38.296326	-76.818677	1 quartzite fire cracked rock; very heavy shell scatter
38.296350	-76.815023	2 red brick fragments, occasional shell
38.296353	-76.815540	1 red brick fragment; occasional shell
38.296357	-76.813861	2 red brick fragments; 1 shell fragment
38.296357	-76.813006	1 red brick fragment
38.296382	-76.818252	1 possible quartzite scraper; 1 glazed red brick fragment; heavy shell scatter (fire cracked rock in vicinity)
38.296393	-76.815148	1 red brick fragment, occasional shell
38.296403	-76.813870	1 red brick fragment
38.296405	-76.812750	Very light red brick scatter
38.296423	-76.818283	1 quartzite fire cracked rock; 1 red brick fragment; heavy shell scatter
38.296427	-76.818748	1 quartzite scraper; 1 red brick fragment; very heavy shell scatter
38.296442	-76.818311	1 quartzite scraper; 2 quartzite fire cracked rock; heavy shell scatter
38.296446	-76.815661	1 quartz shatter; 1 red brick fragment; occasional shell
38.296450	-76.816345	1 plain porcelain rim sherd; very light shell scatter
38.296456	-76.817879	Light shell scatter
38.296463	-76.813301	1 red brick fragment
38.296466	-76.818297	2 quartzite fire cracked rock; heavy shell scatter
38.296473	-76.818297	2 quartzite fire cracked rock; heavy shell scatter
38.296480	-76.815703	1 quartz shatter; 1 colorless faceted bottle or tableware glass base fragment; 1 red brick fragment; occasional shell
38.296482	-76.815236	1 red brick fragment, occasional shell
38.296483	-76.814651	3 red brick fragments
38.296488	-76.813569	1 red brick fragment
38.296546	-76.814720	1 quartzite fire cracked rock
38.296551	-76.814830	1 red brick fragment
38.296553	-76.817970	1 quartz shatter, worked; 1 quartzite fire cracked rock; very light shell scatter
38.296555	-76.812834	1 red brick fragment
38.296559	-76.818334	1 quartzite fire cracked rock; 3 red brick fragments; heavy shell scatter
38.296559	-76.817971	1 quartzite core

38.296574	-76.818324	1 quartzite fire cracked rock; 1 blue transfer print whiteware body sherd with repeated floral design; moderate to heavy shell scatter
38.296583	-76.813781	1 quartz shatter
38.296590	-76.810915	1 red brick fragment
38.296598	-76.818407	2 quartzite fire cracked rock; moderate to heavy shell scatter
38.296599	-76.810884	1 machine-made red brick fragment
38.296620	-76.818017	1 quartz fire cracked rock; occasional shell
38.296628	-76.812844	1 English brown stoneware body sherd
38.296629	-76.815499	Very light red brick scatter; occasional shell
38.296638	-76.813952	Very light red brick scatter
38.296639	-76.815945	2 quartz shatter; 2 coal fragments; occasional to very light shell scatter
38.296659	-76.816678	1 quartz shatter; 1 red brick fragment; 1 iron horseshoe or ox-shoe fragment; occasional shell
38.296660	-76.818925	1 quartzite core; light shell scatter
38.296664	-76.818386	1 quartzite fire cracked rock; moderate shell scatter
38.296668	-76.812781	1 olive green bottle glass base fragment, colonial
38.296671	-76.814106	1 red brick fragment
38.296689	-76.816091	2 quartz shatter; 2 red brick fragments; occasional shell
38.296701	-76.818892	2 quartzite fire cracked rocks; very light to light shell scatter
38.296702	-76.814194	1 quartz primary flake; 1 red brick fragment
38.296719	-76.813106	1 coal fragment
38.296744	-76.811146	1 red brick fragment
38.296755	-76.818578	2 red brick fragments; light shell scatter
38.296759	-76.817715	1 pearlware body sherd; very light shell scatter
38.296783	-76.818405	1 quartzite core; 1 red brick fragment; light shell scatter
38.296784	-76.814427	Very light red brick scatter
38.296790	-76.818207	1 quartz shatter; occasional shell
38.296792	-76.817738	2 red brick fragments; light shell scatter
38.296793	-76.818510	1 quartzite fire cracked rock; 1 thick olive green colonial bottle base fragment; 1 red brick fragment; light shell scatter
38.296796	-76.818494	1 nearly whole brick, notably small, 4.5"x3"x1.5"; light to moderate shell scatter
38.296804	-76.816352	1 olive green bottle glass body fragment, colonial, curved profile; 1 large red brick fragment
38.296811	-76.818437	1 quartzite biface; light to moderate shell scatter
38.296823	-76.815797	1 quartz secondary flake; occasional shell
38.296831	-76.818610	1 quartzite fire cracked rock; light shell scatter
38.296837	-76.819002	1 red brick fragment; very light shell scatter
38.296837	-76.818958	1 quartzite fire cracked rock; 1 possible pig bone fragment; very light shell scatter
38.296848	-76.815192	1 large red brick fragment
38.296855	-76.818195	1 quartz scraper; 1 buff pasted tin-glazed earthenware body sherd with blue painted dot on exterior; 1 white salt-glazed stoneware body sherd; 1 red brick fragment; occasional shell
38.296857	-76.819080	2 red brick fragments; very light shell scatter

38.296872	-76.812967	1 blue pasted, dark blue glazed porcelain body sherd
38.296880	-76.815850	1 quartzite fire cracked rock
38.296896	-76.818714	2 red brick fragments; light shell scatter
38.296900	-76.814561	1 machine-made red brick fragment
38.296901	-76.814512	1 quartz shatter
38.296903	-76.819097	1 quartz tertiary flake; very light shell scatter
38.296922	-76.818699	1 red brick fragment; light shell scatter
38.296932	-76.817388	1 mochaware body sherd; 1 red brick fragment; very light shell scatter
38.296934	-76.814612	1 red brick fragment
38.296935	-76.817968	1 quartzite tertiary flake; 1 green and blue painted creamware body sherd; 1 unidentified blue painted refined earthenware body sherd; very light shell scatter
38.296936	-76.815354	1 red brick fragment
38.296944	-76.816596	No artifacts, start of transect
38.296949	-76.818725	1 near brick bat, 2" thick; 1 coal fragment; light shell scatter
38.296961	-76.815933	1 colorless glass body fragment, molded; light shell scatter, localized
38.296982	-76.818771	1 quartzite tertiary flake; 2 red brick fragments; very light shell scatter
38.296983	-76.819195	1 quartzite fire cracked rock; occasional shell
38.296995	-76.818275	1 red brick fragment; occasional shell
38.296999	-76.814662	1 coal fragment
38.297000	-76.818819	1 quartzite fire cracked rock; 1 red brick fragment, light red brick scatter; very light shell scatter
38.297004	-76.817499	1 red brick bat, 3.25"x2"; very light shell scatter
38.297008	-76.818359	1 dark olive green colonial bottle glass body fragment; occasional shell
38.297012	-76.817955	Light red brick scatter; very light shell scatter
38.297039	-76.817090	Very light shell scatter
38.297042	-76.818430	1 quartzite secondary flake; 1 glazed red brick fragment; occasional shell
38.297047	-76.818447	2 red brick fragments, occasional brick; occasional shell
38.297050	-76.814003	1 red brick fragment
38.297083	-76.818048	Light red brick scatter; very light shell scatter
38.297089	-76.818904	1 quartzite fire cracked rock; 4 red brick fragments, light red brick scatter; very light shell scatter
38.297100	-76.818483	2 red brick fragments, occasional brick; occasional shell
38.297114	-76.814910	1 unidentified stone, possibly utilized
38.297121	-76.818061	1 red brick fragment; very light shell scatter
38.297121	-76.814170	1 quartz shatter
38.297124	-76.819227	1 quartz biface; occasional shell
38.297134	-76.818910	1 glazed red brick fragment, 2 red brick fragments, light red brick scatter; very light shell scatter
38.297140	-76.819193	1 red brick fragment; occasional shell
38.297148	-76.818111	1 red brick fragment; very light shell scatter
38.297173	-76.818534	1 quartzite or sandstone core; 1 quartz secondary flake; occasional shell
38.297174	-76.815631	1 red brick fragment; 1 shell fragment
38.297185	-76.818611	1 quartz tertiary flake; 2 red brick fragments; occasional shell

38.297186	-76.819249	1 blue tinted porcelain base sherd; occasional shell
38.297191	-76.817657	1 dark olive green colonial bottle glass body fragment, patinated; very light to light shell scatter
38.297205	-76.812689	1 large quartz cobble, possibly worked
38.297218	-76.817745	1 red brick fragment; light shell scatter
38.297220	-76.815844	1 aqua colored glass body fragment, modern; light shell scatter, localized
38.297228	-76.818570	Light red brick scatter; occasional shell
38.297235	-76.818998	1 red brick fragment; occasional shell
38.297235	-76.811885	1 quartzite shatter or core
38.297250	-76.819318	1 red brick fragment; occasional shell
38.297259	-76.817251	1 red brick fragment; very light shell scatter
38.297264	-76.817379	1 red brick fragment; very light shell scatter
38.297282	-76.813896	1 quartz biface
38.297283	-76.814926	1 quartz fire cracked rock
38.297291	-76.819232	3 red brick fragments; occasional shell
38.297294	-76.818272	1 red brick fragment; occasional shell
38.297298	-76.819375	2 red brick fragments; occasional shell
38.297307	-76.818220	1 iron horseshoe; occasional shell
38.297314	-76.817030	1 large red brick fragment; occasional shell
38.297316	-76.815972	1 large red brick fragment
38.297319	-76.819016	1 possibly worked quartzite cobble; 1 red brick fragment; occasional shell
38.297319	-76.818663	1 unglazed red pasted coarse earthenware body sherd; 1 red brick fragment, very light red brick scatter; light shell scatter
38.297320	-76.816011	1 large quartz cobble, worked; 1 red brick fragment
38.297332	-76.819389	1 quartzite fire cracked rock; 1 red brick fragment; occasional shell
38.297332	-76.818331	1 glazed red brick fragment; occasional shell
38.297354	-76.817890	1 manganese mottled earthenware body sherd; 1 red brick fragment; very light shell scatter
38.297355	-76.812466	1 white salt-glazed stoneware body sherd
38.297372	-76.818392	1 dark olive green colonial bottle glass body fragment; occasional shell
38.297372	-76.815412	1 quartzite cobble, worked; 1 handmade red brick fragment
38.297386	-76.816104	1 red brick fragment
38.297392	-76.819092	1 red brick fragment
38.297403	-76.818795	1 glazed red brick fragment; light shell scatter
38.297406	-76.818394	1 red brick fragment; occasional shell
38.297408	-76.818754	1 quartz shatter; light red brick scatter; light to moderate shell scatter
38.297431	-76.817527	1 quartz core; 1 quartzite fire cracked rock; 1 glazed red brick fragment; light red brick scatter; light to moderate shell scatter
38.297435	-76.817159	1 quartzite fire cracked rock; occasional red brick; light shell scatter
38.297444	-76.817943	Very light red brick scatter; very light to light shell scatter
38.297448	-76.819145	1 English Brown stoneware body sherd, late; occasional brick; occasional shell
38.297465	-76.818454	1 quartz tertiary flake; 1 red brick fragment; occasional shell
38.297509	-76.818504	1 unidentified white refined earthenware body sherd; 1 red brick fragment;

		occasional shell
38.297511	-76.819491	1 quartz primary flake; 1 quartz shatter; 2 red brick fragments; very light shell scatter
38.297516	-76.818842	1 creamware body sherd; 1 red brick fragment; very light shell scatter
38.297523	-76.819573	1 possible quartzite hammerstone; occasional shell
38.297525	-76.817189	1 glazed red brick fragment, 1 red brick fragment; occasional shell
38.297527	-76.819153	1 red brick fragment; occasional shell
38.297561	-76.819575	1 white salt-glazed stoneware base sherd; 2 red brick fragments; very light shell scatter
38.297569	-76.817683	Fire cracked rock scatter; unidentified iron tractor part; moderate red brick scatter; moderate shell scatter
38.297570	-76.818070	1 machine-made red brick fragment; light shell scatter
38.297570	-76.814332	1 red brick fragment
38.297584	-76.817281	Occasional red brick; occasional shell
38.297589	-76.817711	1 quartzite secondary flake; light red brick scatter; very light shell scatter
38.297590	-76.818969	1 quartzite fire cracked rock; occasional shell
38.297592	-76.818014	2 orange pasted black lead-glazed coarse earthenware body sherds; light shell scatter
38.297595	-76.819607	1 quartz biface, possible Piscataway projectile point; 1 red brick fragment; very light shell scatter
38.297608	-76.819663	1 glazed red brick fragment; light shell scatter
38.297608	-76.818573	1 colorless tableglass body fragment; light red brick scatter; occasional shell
38.297622	-76.813373	1 quartz shatter
38.297636	-76.819267	1 glazed red brick fragment; occasional shell
38.297637	-76.819668	3 red brick fragments; 1 coal fragment; 1 charcoal fragment; light shell scatter
38.297653	-76.818982	1 quartz shatter; 1 red brick fragment; little to no shell
38.297655	-76.819703	1 impressed, possibly scalloped, blue edgeware rim sherd; light to moderate shell scatter
38.297658	-76.816918	1 red brick fragment
38.297663	-76.818215	1 colorless glass tableware body fragment; 3 red brick fragments; moderate shell scatter
38.297665	-76.818740	1 clear-aqua colored glass bottle pontil, light red brick scatter; very light shell scatter
38.297665	-76.818694	Light red brick scatter; occasional shell
38.297669	-76.817307	1 glazed red brick fragment; occasional shell
38.297679	-76.819734	1 red brick fragment; moderate shell scatter
38.297681	-76.818982	1 glazed red brick fragment, 2 red brick fragments; little to no shell
38.297694	-76.818724	1 buff pasted Staffordshire slipware body sherd w/ horizontal stripes; light red brick scatter; light shell scatter
38.297698	-76.819372	1 red brick fragment; very light shell scatter
38.297698	-76.818698	1 colorless table glass body fragment; light red brick scatter; very light shell scatter
38.297708	-76.819016	Very light red brick scatter; little to no shell
38.297722	-76.813474	1 quartz shatter
38.297725	-76.817859	1 unidentified red pasted coarse earthenware body spall; 1 creamware body sherd; 1 red brick bat 4.25"x2.25"; light red brick scatter; very light shell scatter

38.297734	-76.816962	1 red brick fragment
38.297752	-76.819758	1 red brick fragment; moderate shell scatter
38.297752	-76.817012	1 quartzite fire cracked rock; 2 red brick fragments
38.297752	-76.815365	Start of transect, no artifacts
38.297756	-76.818786	1 quartzite fire cracked rock; very light shell scatter
38.297761	-76.819152	1 large red brick fragment with chert inclusions; occasional to very light shell scatter
38.297761	-76.818237	1 orange pasted black lead-glazed coarse earthenware body sherd; 1 blue painted porcelain base sherd; light red brick scatter; light to moderate shell scatter
38.297764	-76.818799	1 quartz projectile point tip fragment, unidentified type; 1 red brick fragment; 1 coal fragment; very light shell scatter
38.297770	-76.817579	1 possible pearlware body sherd; 3 red brick fragments; occasional shell
38.297773	-76.819858	1 quartz tertiary flake; 1 red brick fragment; moderate shell scatter
38.297775	-76.819447	1 red brick fragment; 1 possible architectural sandstone fragment; very light shell scatter
38.297775	-76.819110	1 red brick fragment; very light shell scatter
38.297775	-76.818797	2 red brick fragments; 1 coal fragment; light shell scatter
38.297787	-76.814554	1 quartz shatter, worked
38.297796	-76.817448	1 quartzite fire cracked rock; 2 red brick fragments; occasional shell
38.297799	-76.817993	1 blue painted porcelain teacup base sherd; 1 window glass fragment; 1 unidentified iron fragment; very light shell scatter
38.297819	-76.819509	1 red brick fragment; very light shell scatter
38.297819	-76.818295	1 North American salt-glazed stoneware body sherd; 1 red brick fragment; moderate shell scatter
38.297822	-76.819824	1 quartz primary flake; 1 orange pasted brown-black lead-glazed earthenware body sherd; moderate shell scatter
38.297828	-76.818022	1 blue painted porcelain teacup rim sherd with brown painted interior; 1 modern colorless glass fragment; moderate red brick scatter with large bricks; light to moderate shell scatter
38.297830	-76.818798	1 red brick fragment; light shell scatter
38.297837	-76.819209	1 glazed red brick fragment; occasional shell
38.297844	-76.818091	1 North American blue and gray salt-glazed stoneware body sherd; light red brick scatter; light shell scatter
38.297855	-76.815473	1 chert shatter; 1 salmon brick or daub fragment; very heavy shell scatter
38.297856	-76.818834	2 red brick fragments; light shell scatter
38.297860	-76.817592	1 window glass fragment; occasional red brick; occasional shell
38.297864	-76.817107	1 red brick fragment
38.297870	-76.818348	1 dark olive green colonial bottle glass body fragment; light red brick scatter; moderate shell scatter
38.297875	-76.818099	1 possible creamware body sherd; 1 light olive green bottle glass body fragment, thin; 1 old molded brown bottle glass base fragment; light red brick scatter; light shell scatter
38.297894	-76.819976	1 quartz tertiary flake; moderate to heavy shell scatter
38.297902	-76.817610	1 light orange to buff pasted clear lead-glazed earthenware body sherd; occasional shell
38.297905	-76.819982	1 quartz shatter; 1 red brick fragment; moderate to heavy shell scatter
38.297907	-76.818927	1 red pasted black lead-glazed earthenware body sherd; 1 possible Rhenish blue

		and gray body sherd; very light shell scatter
38.297909	-76.819546	1 red brick fragment; very light shell scatter
38.297918	-76.812720	1 quartzite core
38.297921	-76.819955	1 quartz core; 1 possible English soft paste porcelain body sherd, hand-painted blue floral design; moderate to heavy shell scatter
38.297926	-76.818985	1 colorless table glass body fragment; light shell scatter
38.297928	-76.818873	1 quartz biface; 1 red brick fragment; very light shell scatter
38.297928	-76.818532	1 olive green bottle glass body fragment; 1 machine-mad red brick fragment; 2 plaster fragments; moderate shell scatter
38.297935	-76.818534	1 light green bottle neck fragment; 19th century; moderate shell scatter
38.297944	-76.819274	1 quartz shatter; 1 red brick fragment; little to no shell
38.297946	-76.818546	1 quartzite fire cracked rock; moderate shell scatter
38.297956	-76.819956	1 colorless table glass body fragment, not modern; moderate t heavy shell scatter
38.297973	-76.818145	1 quartz uniface or scraper; 1 very dark green/olive green bottle glass body fragment, probably 19th century; light to moderate red brick scatter; light shell scatter
38.297974	-76.818491	1 colorless glass body fragment, not modern; 1 handmade red brick bat 3"x2"; moderate shell scatter
38.297975	-76.819005	1 quartz projectile point fragment, possibly Savannah River type; 1 red brick fragment; very light shell scatter
38.297976	-76.820091	1 light orange pasted brown lead-glazed earthenware body sherd, colonial; moderate to heavy shell scatter
38.297980	-76.814224	1 quartz shatter; 1 quartzite fire cracked rock; 1 red brick fragment
38.297986	-76.817188	occasional red brick
38.297986	-76.815162	1 red brick fragment
38.298001	-76.817721	3 red brick fragments; very light shell scatter
38.298007	-76.818386	Moderate red brick scatter; moderate to heavy shell scatter
38.298007	-76.818228	1 creamware body sherd; 1 black painted porcelain body sherd; 1 dark olive green bottle base, thick with straight sides; 1 window glass fragment; moderate red brick scatter; light to moderate shell scatter
38.298018	-76.818266	1 orange pasted black lead-glazed coarse earthenware body sherd; 2 pearlware base sherds; 1 purple transfer printed whiteware body sherds; 1 colorless small case or pharmaceutical bottle glass body fragment; 1 aqua to very light blue/green colored possible pharmaceutical glass bottle rim fragment; 1 patinated olive green bottle glass, thin; 1 thick dark olive green/green bottle glass, straight sides; moderate to heavy red brick scatter; moderate shell scatter
38.298022	-76.818474	1 quartzite fire cracked rock; 1 orange pasted brown lead-glazed earthenware body sherd; 1 machine-made red brick bat 3"x2"; 2 large almost red brick bat fragments; moderate to heavy shell scatter
38.298035	-76.819403	1 red brick fragment; little to no shell
38.298037	-76.818528	1 blue painted possibly Chinese porcelain body sherd; moderate red brick scatter; light coal scatter; moderate shell scatter
38.298040	-76.818232	1 pearlware rim sherd; 1 possible blue/white annularware body sherd; 1 cream colored refined earthenware body sherd; 1 blue Chinese scene transfer printed refined earthenware body sherd; 1 unidentified white refined earthenware rim sherd; 1 colorless glass body fragment; 1 aqua-green glass body fragment; very light red brick scatter; moderate to heavy shell
38.298040	-76.817801	2 pearlware body sherds; very light shell scatter

38.298043	-76.820085	1 red brick fragment; moderate to heavy shell scatter
38.298044	-76.820184	1 ironstone ceramic body/base sherd with partial maker's mark "ETWYND" for Cockson, Chetwynd & Co., 1866-1875
38.298047	-76.817264	2 red brick fragments
38.298053	-76.817284	1 red brick fragment
38.298064	-76.817825	1 thin plain porcelain body sherd; light to moderate red brick scatter; light shell scatter
38.298069	-76.815222	1 red brick fragment
38.298077	-76.819148	1 quartz core; 1 dark olive green colonial bottle glass body fragment; 1 red brick fragment; light to moderate shell scatter
38.298078	-76.819011	1 blue floral painted Chinese porcelain body sherd; light shell scatter
38.298082	-76.814049	1 quartz shatter
38.298089	-76.818263	1 unidentified dipped/annular-ware body sherd; 1 unidentified cream colored refined earthenware body sherd; 1 blue transfer printed refined earthenware footring sherd; 1 unidentified blue painted white refined earthenware body sherd; 1 pearlware body sherd; 1 North American gray salt-glazed stoneware body sherd; 1 milk glass button, 4-holes; 1 manganese glass bottle base, thick; 2 aqua/light greenish-blue bottle glass body fragments; 1 window glass fragment; light red brick scatter; moderate to heavy shell scatter
38.298093	-76.819715	1 quartzite fire cracked rock, possibly worked
38.298095	-76.819489	1 quartzite fire cracked rock; little to no shell
38.298100	-76.812862	1 unidentified brown to red pasted sand tempered native ceramic body sherd, Accokeek or Popes Creek
38.298105	-76.817373	1 glazed red brick fragment; occasional shell
38.298106	-76.818600	1 brown bottle glass mouth/lip, 19th century; moderate shell scatter
38.298113	-76.818655	1 North American salt-glazed stoneware body sherd, light shell scatter
38.298114	-76.818580	1 red brick bat, 3"x2"; moderate to heavy shell scatter
38.298118	-76.818246	1 quartz shatter; 1 possible creamware body sherd; 1 gray pasted embossed brown glazed stoneware body sherd, most likely Rockingham; 1 olive green bottle glass body fragment, curved profile; 1 milk glass body fragment; 1 light aqua colored glass body fragment; light red brick scatter; moderate to heavy shell scatter
38.298121	-76.819785	1 thick unidentified blue hand-painted porcelain body sherd, possibly from chamber pot; occasional to very light shell scatter
38.298122	-76.818655	1 quartzite fire cracked rock; 3 red brick fragments; moderate to heavy shell scatter
38.298124	-76.819466	1 quartzite fire cracked rock; little to no shell
38.298124	-76.815703	1 quartzite secondary flake; light red brick scatter
38.298124	-76.815296	1 quartzite core or fire cracked rock
38.298131	-76.818270	1 North American gray salt-glazed stoneware rim sherd; 1 dark olive green bottle glass body fragment, thin, curved profile; light red brick scatter; moderate to heavy shell scatter
38.298146	-76.817901	1 large quartzite core; 1 thick plain porcelain base sherd; light shell scatter
38.298150	-76.817545	Fire cracked rock scatter; light red brick scatter
38.298159	-76.818372	1 quartz fire cracked rock; 1 machine made red brick bat; moderate shell scatter
38.298160	-76.819536	1 molten colorless table glass fragment; light shell scatter
38.298163	-76.819107	1 unglazed red pasted coarse earthenware body sherd; 1 red brick fragment; 1 coal fragment; light to moderate shell scatter
38.298171	-76.818688	1 red brick fragment; heavy shell scatter

38.298172	-76.816888	occasional brick
38.298177	-76.817817	Moderate to heavy red brick scatter; light to moderate shell scatter
38.298183	-76.815385	1 red brick fragment
38.298184	-76.819265	1 quartzite fire cracked rock; 1 unidentified iron hardware fragment; light shell scatter
38.298186	-76.816225	Light shell scatter
38.298189	-76.814930	2 quartzite fire cracked rocks
38.298193	-76.819161	1 possible quartzite scraper; 1 silver thimble, fern-like decoration, size 8 (Late 19th/Early 20th century); light to moderate shell scatter
38.298198	-76.819165	2 red brick fragments; light to moderate shell scatter
38.298211	-76.817898	1 light aqua glass body fragment; occasional brick; light to moderate shell scatter
38.298222	-76.818748	3 red brick fragments; heavy shell scatter
38.298230	-76.817484	1 red brick fragment
38.298266	-76.819295	1 red brick fragment; light shell scatter
38.298267	-76.814991	1 red brick fragment
38.298273	-76.816279	2 red brick fragments; 1 oyster shell fragment
38.298274	-76.817890	1 very thin plain porcelain body sherd; occasional brick; light to moderate shell scatter
38.298275	-76.819652	1 red brick fragment; light to moderate shell scatter
38.298278	-76.818374	2 quartz fire cracked rock, 1 North American blue and gray salt-glazed stoneware body sherd; light red brick scatter; moderate shell scatter
38.298287	-76.819947	1 red brick fragment; occasional to very light shell scatter
38.298290	-76.819307	1 quartzite fire cracked rock; light shell scatter
38.298294	-76.818540	1 Buckley rim sherd; 1 large red brick fragment, very light red brick scatter; moderate shell scatter
38.298299	-76.818824	1 red brick fragment; heavy shell scatter
38.298308	-76.819343	1 quartz shatter or tertiary flake; light to moderate shell scatter
38.298311	-76.818808	1 red brick fragment; heavy shell scatter
38.298319	-76.817945	1 quartzite fire cracked rock; moderate shell scatter
38.298325	-76.814583	1 red brick fragment
38.298331	-76.819403	1 red brick fragment; moderate shell scatter
38.298331	-76.818828	1 red brick fragment; heavy shell scatter
38.298332	-76.815102	2 red brick fragments
38.298347	-76.816740	1 red brick fragment
38.298349	-76.818081	Light to moderate red brick scatter; moderate shell scatter
38.298349	-76.817054	Very light red brick scatter; occasional shell
38.298368	-76.815547	1 red brick fragment
38.298384	-76.817585	1 worked quartzite cobble; 2 red brick fragments
38.298399	-76.819448	Moderate to heavy shell scatter
38.298404	-76.816464	2 red brick fragments
38.298420	-76.817613	2 red brick fragments; very light shell scatter
38.298431	-76.818698	1 red brick fragment; moderate to heavy shell scatter
38.298438	-76.818875	1 red brick fragment; heavy to very heavy shell scatter

38.298442	-76.818956	1 red brick fragment; heavy to very heavy shell scatter
38.298442	-76.818146	1 quartzite fire cracked rock; light red brick scatter; moderate shell scatter
38.298460	-76.819825	1 red brick fragment; moderate shell scatter
38.298460	-76.819801	1 red brick fragment; moderate shell scatter
38.298460	-76.817682	1 red brick fragment; very light shell scatter
38.298466	-76.816130	1 quartzite fire cracked rock; 1 chert shatter; 1 quartz shatter
38.298469	-76.818087	1 quartzite fire cracked rock; 1 olive green bottle glass body fragment, straight profile; moderate to heavy shell scatter
38.298471	-76.817201	Very light red brick scatter
38.298502	-76.818105	1 quartz tertiary flake; moderate shell scatter
38.298503	-76.819007	1 quartzite tertiary flake; very heavy shell scatter
38.298504	-76.816521	1 rhyolite core; 1 red brick fragment
38.298513	-76.819919	1 red brick fragment; moderate to heavy shell scatter
38.298515	-76.814358	1 quartz shatter; occasional shell
38.298535	-76.818241	2 quartzite fire cracked rocks; 1 red brick fragment; heavy shell scatter
38.298546	-76.814918	1 quartzite secondary flake; occasional to very light shell scatter
38.298547	-76.819053	1 coal fragment; very heavy shell scatter
38.298555	-76.818744	1 quartz shatter; moderate to heavy shell scatter
38.298557	-76.819589	1 quartzite biface w/ cortex, possible chopper; very heavy shell scatter
38.298564	-76.817769	1 red brick fragment; occasional shell
38.298576	-76.817314	1 unidentified white refined earthenware rim sherd, embossed; 1 unidentified white refined earthenware base sherd; 1 colorless glass body fragment; occasional red brick
38.298585	-76.814920	1 quartzite fire cracked rock; occasional to very light shell scatter
38.298598	-76.814498	1 quartz shatter; occasional shell
38.298614	-76.819134	1 possible quartzite Levanna projectile point; very heavy shell scatter
38.298620	-76.815882	1 red painted or transfer-printed porcelain body sherd
38.298630	-76.817835	1 red brick fragment; occasional shell
38.298631	-76.816295	1 red brick fragment
38.298640	-76.814961	1 possible quartzite scraper; 1 quartz shatter; 1 red brick fragment
38.298658	-76.817839	1 quartz shatter, worked; occasional to very light shell scatter
38.298686	-76.817385	1 red brick bat, 4.25"x2.25"
38.298695	-76.819689	1 red brick fragment; very heavy shell scatter
38.298701	-76.815928	2 red brick fragments
38.298709	-76.817937	1 quartz shatter; occasional shell
38.298716	-76.817133	1 red brick fragment
38.298716	-76.816390	1 red brick fragment
38.298722	-76.818384	1 red brick fragment; heavy shell scatter
38.298728	-76.818372	1 quartz fire cracked rock; heavy shell scatter
38.298731	-76.817961	1 red brick fragment; very light shell scatter
38.298745	-76.816002	1 quartzite fire cracked rock; 1 oyster shell fragment
38.298747	-76.819706	1 quartz shatter; very heavy shell scatter

38.298749	-76.818582	1 quartzite core; 1 quartzite scraper; 2 thin light to dark brown pasted shell tempered rim sherds, undecorated, probably Townsend plain; 1 glazed red brick fragment, very light red brick scatter; heavy shell scatter
38.298758	-76.816800	1 jasper tertiary flake
38.298770	-76.816798	2 red brick fragments
38.298790	-76.818482	1 red brick fragment; moderate to heavy shell scatter
38.298792	-76.819300	1 quartzite fire cracked rock; very heavy shell scatter
38.298795	-76.816820	1 red brick fragment
38.298824	-76.816907	Very light red brick scatter; occasional shell
38.298839	-76.817199	Light red brick scatter; occasional shell
38.298854	-76.817204	Light to moderate red brick scatter; occasional shell
38.298862	-76.814716	1 red brick fragment; very light shell scatter
38.298863	-76.815164	1 quartz tertiary flake
38.298866	-76.817591	1 red brick fragment; occasional shell
38.298889	-76.819056	1 red brick fragment with white wash; heavy shell scatter
38.298889	-76.818692	1 Potomac Creek body sherd; 1 thin plain porcelain body sherd; heavy shell scatter
38.298894	-76.815206	1 red brick fragment
38.298905	-76.817266	1 unidentified white refined earthenware body sherd; light red brick scatter
38.298917	-76.817000	Light to moderate red brick scatter
38.298924	-76.817685	1 thick buff pasted thick blue lead glazed coarse earthenware base sherd; 2 red brick fragments; occasional shell
38.298936	-76.819438	1 molten aqua colored glass fragment; very heavy shell scatter
38.298945	-76.817324	1 colorless glass body fragment; occasional shell
38.298963	-76.817373	1 milk glass body fragment; 1 large red brick fragment; occasional shell
38.298970	-76.819499	1 North American salt-glazed stoneware body sherd, very heavy shell scatter
38.298971	-76.817437	1 somewhat modern iron axe head; occasional shell
38.298982	-76.817734	1 flat iron fragment, possible hinge; 3 large red brick fragments; very light shell scatter
38.299008	-76.816708	2 possible quartz shatter
38.299048	-76.816731	1 quartz core or unidentified biface
38.299056	-76.816276	1 large red brick fragment; very light shell scatter
38.299072	-76.819226	Light red brick scatter; heavy to very heavy shell scatter
38.299072	-76.817078	1 very light green/blue tinted bottle glass body fragment, molded
38.299075	-76.817808	1 dark/true blue glass body fragment; 2 colorless glass body fragment; light shell scatter
38.299088	-76.817507	1 quartzite fire cracked rock; 1 buff pasted black lead glazed earthenware body sherd, thick; 2 colorless table glass body fragments; 2 very light green bottle glass body fragments; 1 milk glass body fragment; very light shell scatter
38.299099	-76.816807	1 possible quartz shatter
38.299110	-76.815856	1 quartz core or unidentified biface, possibly a scraper; 1 orange pasted clear lead glazed coarse earthenware body sherd
38.299118	-76.817501	1 quartzite fire cracked rock; 1 unidentified white refined earthenware body fragment; 3 colorless glass body fragments; 1 light blue glass body fragment; 4 very light blue glass body fragments; 1 dark/true blue glass body fragment; 1 unidentified iron hitch with bolt; 1 probable iron stock lock fragment; occasional

		red brick; very light shell scatter
38.299133	-76.817517	1 molded bright green bottle glass body fragment; 1 molded brown bottle body fragment; 1 molded light manganese glass body fragments; 1 molded very light blue bottle glass body fragment; 1 colorless glass body fragment; occasional red brick; light shell scatter
38.299134	-76.817792	1 blue transfer printed refined earthenware body sherd, Chinese architectural scene; 1 unidentified white refined earthenware body sherd; 1 light blue molded glass fragment; light red brick scatter; light to moderate shell scatter
38.299141	-76.817156	1 very light green/blue tinted bottle glass rim fragment, molded
38.299151	-76.815888	1 quartz shatter; 1 red brick fragment
38.299157	-76.816843	1 quartz shatter or tertiary flake
38.299160	-76.817880	2 unidentified undecorated white refined earthenware body sherds; 1 plain porcelain base sherd; 5 mold-made light blue bottle glass body fragments; 1 colorless glass base fragment; 1 window glass fragment; moderate shell scatter
38.299162	-76.818891	1 quartzite fire cracked rock; moderate to heavy shell scatter
38.299179	-76.819332	1 quartz uniface; 1 North American blue and gray salt-glazed stoneware body sherd; 1 unidentified bluish-white tinted stoneware or porcelain body sherd with skin-like texture; very heavy shell scatter
38.299198	-76.817613	1 unidentified blue on white porcelain rim sherd; 1 possible ironstone ceramic body sherd; 2 colorless glass body fragments; 2 manganese glass body fragments; 2 aqua colored glass body fragments; 1 brown glass body fragment; 1 colorless vial glass neck/rim fragment; 1 possible iron lock plate face fragment; occasional red brick; light shell scatter
38.299200	-76.817200	1 quartz secondary flake; 1 red brick fragment
38.299214	-76.815094	1 possible creamware body sherd or unidentified white refined earthenware; occasional shell
38.299245	-76.815572	1 quartz primary flake; 1 oyster shell fragment
38.299280	-76.817616	1 milk glass body fragment; 1 very light blue glass body fragment; 1 manganese bottle glass body fragment; 1 cloudy dark blue colored glass body fragment; 1 unidentified iron hardware fragment; occasional red brick; light to moderate shell scatter
38.299292	-76.818075	1 rhyolite triangular projectile point, complete, 51x30.5mm, possibly Madison or Brewerton Eared Triangle, but large; 1 quartz tertiary flake
38.299312	-76.817686	1 unidentified white refined earthenware body sherd; 3 colorless glass body fragments; 1 bright green bottle glass body fragment; occasional to very light red brick scatter; moderate shell scatter
38.299316	-76.815600	1 quartzite secondary flake; occasional shell
38.299324	-76.817725	1 blue sponge painted white refined earthenware body sherd, possibly open sponge type; 6 colorless glass body fragments; 1 dark/true blue glass body fragment; 1 very light green/blue glass body fragment; 1 aqua colored glass body fragment; 1 milk glass body fragment; moderate shell scatter
38.299325	-76.815220	1 quartz shatter; 1 unidentified ground stone; 1 red brick fragment; occasional shell
38.299327	-76.816581	1 large red brick fragment
38.299336	-76.817326	2 quartz shatter
38.299350	-76.816057	1 unidentified flat iron sheet fragment, possible hoe blade
38.299363	-76.818099	1 ironstone ceramic body sherd; moderate to heavy shell scatter
38.299365	-76.817023	1 quartz projectile point tip, large, possibly Susquehanna Broadspear
38.299381	-76.817791	1 colorless glass body fragment; 1 aqua colored glass body fragment; 1 machine-

		made red brick fragment; moderate shell scatter
38.299381	-76.816609	Very light red brick scatter
38.299414	-76.817116	1 quartz shatter; 1 glazed red brick fragment
38.299426	-76.817411	1 quartzite tertiary flake; occasional shell
38.299442	-76.818166	1 modern flat glass fragment; heavy shell scatter
38.299454	-76.816725	Very light red brick scatter
38.299460	-76.816257	1 quartz shatter; 1 red brick fragment; 1 oyster shell fragment
38.299469	-76.815262	1 quartzite secondary flake; 1 quartzite fire cracked rock; very light shell scatter
38.299474	-76.817849	1 quartzite fire cracked rock; 1 dark/true blue glass body fragment; 1 milk glass body fragment; moderate shell scatter
38.299552	-76.817915	1 brown bottle glass body fragment; 1 red brick fragment; moderate to heavy shell scatter
38.299590	-76.816325	1 glazed red brick fragment; very light red brick scatter; occasional shell
38.299616	-76.817540	1 quartzite fire cracked rock; occasional to very light shell scatter
38.299637	-76.815506	1 red brick fragment; moderate to heavy shell scatter
38.299643	-76.815160	1 quartz biface; light shell scatter
38.299668	-76.816357	Light to moderate red brick scatter; very light shell scatter
38.299669	-76.818036	1 quartzite biface fragment; occasional red brick; moderate to heavy shell scatter
38.299673	-76.817339	1 chert tertiary flake; occasional shell
38.299678	-76.816538	1 unidentified side notched quartz projectile point with very concave base, probably Otter Creek type
38.299711	-76.816470	1 quartz shatter; light to moderate red brick scatter; very light to light shell scatter
38.299715	-76.816500	1 glazed red brick fragment; light to moderate red brick scatter; very light shell scatter
38.299745	-76.815726	Heavy to very heavy shell scatter, approximate edge of shell midden
38.299748	-76.816493	Light red brick scatter; very light shell scatter
38.299754	-76.816528	1 red brick fragment; moderate shell scatter
38.299791	-76.817470	1 quartz shatter; very light shell scatter
38.299808	-76.816041	Moderate shell scatter, approximate edge of shell midden
38.299815	-76.817788	Moderate to heavy shell scatter, roughly the edge of the shell midden
38.299827	-76.816191	1 quartzite fire cracked rock; very heavy shell scatter
38.299840	-76.817541	Moderate to heavy shell scatter, approximate edge of shell midden
38.299913	-76.815384	1 quartz shatter; moderate to heavy shell scatter
38.299919	-76.817896	1 quartzite fire cracked rock; very heavy shell scatter
38.299951	-76.817640	1 quartzite fire cracked rock; heavy to very heavy shell scatter
38.299958	-76.816297	1 quartzite fire cracked rock; very heavy shell scatter
38.300029	-76.817292	1 quartzite fire cracked rock; light to moderate shell scatter
38.300083	-76.816422	Very heavy shell scatter
38.300117	-76.818140	1 brown pasted shell tempered Townsend, Rappahannock incised body sherd; very heavy shell scatter
38.300194	-76.816020	1 quartzite fire cracked rock; very heavy shell scatter
38.300235	-76.817444	1 quartz fire cracked rock; moderate to heavy shell scatter
38.300290	-76.816952	Heavy shell scatter, approximate edge of shell midden

38.300356	-76.817533	1 quartzite fire cracked rock; heavy shell scatter
38.300502	-76.817224	Very heavy shell scatter
38.300514	-76.815830	Heavy shell scatter, end of transect

18ST884 - Lower Brambly 2 site - Surface Survey Catalog

38.301982	-76.810285	1 quartz cobble, worked
38.302026	-76.810310	1 dark olive green bottle glass body fragment; 1 coal fragment; 1 shell fragment
38.302091	-76.810322	1 shell fragment
38.302116	-76.809842	Occasional shell
38.302219	-76.810020	Light shell scatter
38.302308	-76.809608	1 quartzite shatter; 1 quartzite fire cracked rock
38.302328	-76.810637	1 possible quartzite fire cracked rock
38.302340	-76.810639	1 quartzite fire cracked rock
38.302340	-76.809565	1 quartzite shatter
38.302499	-76.810840	Very light shell scatter
38.302518	-76.810801	Very light shell scatter
38.302553	-76.810904	2 quartz shatter; very light shell scatter
38.302679	-76.811054	Very light shell scatter
38.302706	-76.810738	Very light shell scatter
38.302784	-76.810816	Very light shell scatter
38.302878	-76.810977	Occasional shell
38.302922	-76.811064	Occasional shell
38.302962	-76.811167	Occasional shell
38.303033	-76.811290	Very light shell scatter
38.303045	-76.810056	1 quartzite fire cracked rock
38.303091	-76.811284	1 quartzite fire cracked rock; very light shell scatter
38.303192	-76.810749	Occasional shell
38.303213	-76.808682	Occasional shell
38.303250	-76.810906	Very light shell scatter
38.303279	-76.810866	Very light shell scatter
38.303282	-76.808774	2 quartz shatter
38.303311	-76.810956	Moderate shell scatter
38.303356	-76.811038	Moderate shell scatter
38.303357	-76.809840	Occasional shell
38.303376	-76.811078	Moderate shell scatter
38.303385	-76.811094	1 quartz shatter; moderate shell scatter
38.303434	-76.811201	Light to moderate shell scatter
38.303439	-76.810543	Occasional shell
38.303463	-76.810058	Occasional to very light shell scatter
38.303473	-76.808661	1 shell fragment

38.303506	-76.810601	Very light shell scatter
38.303561	-76.810722	Light shell scatter
38.303617	-76.810802	Very light to light shell scatter
38.303705	-76.810393	Very light shell scatter
38.303753	-76.810459	Very light shell scatter
38.303785	-76.811134	Very light shell scatter
38.303818	-76.810765	Very light shell scatter
38.303821	-76.809103	1 quartzite fire cracked rock
38.303890	-76.810190	1 quartzite fire cracked rock; light to moderate shell scatter
38.303926	-76.810331	Light to moderate shell scatter
38.304003	-76.809816	Very light shell scatter
38.304003	-76.809244	1 quartz shatter
38.304023	-76.809888	Very light shell scatter
38.304031	-76.810420	Very light shell scatter
38.304043	-76.810853	1 quartzite shatter; occasional shell
38.304130	-76.810546	1 quartz core; light shell scatter
38.304134	-76.810074	Very light to light shell scatter
38.304183	-76.810145	Very light shell scatter
38.304198	-76.810710	1 quartz secondary flake; occasional shell
38.304356	-76.809714	Occasional shell
38.304479	-76.810006	1 quartzite shatter or fire cracked rock

18ST882 - Wicomico Fields 1 site - Surface Survey Catalog

Lat	Long	Catalog
38.316833	-76.818854	1 red brick fragment
38.316867	-76.818181	1 red brick fragment
38.316877	-76.818007	Occasional oyster shell scatter
38.316886	-76.817894	Occasional oyster shell scatter
38.316893	-76.817656	1 oyster shell fragment
38.316900	-76.817609	Occasional oyster shell scatter
38.316927	-76.817367	1 quartz shatter
38.316942	-76.816339	1 red pasted black lead glazed earthenware body sherd; 1 unglazed red coarse earthenware body spall, possibly Buckley; 1 dark olive green bottle glass body fragment; Moderate red brick scatter; Moderate to heavy oyster shell scatter
38.316955	-76.817062	Light red brick scatter; Within rocky outcrop
38.316962	-76.817205	1 red brick fragment; Edge of rocky outcrop
38.316974	-76.816870	1 red brick fragment; Within rocky outcrop
38.317001	-76.816713	Light red brick scatter; Light oyster shell scatter; Within rocky outcrop
38.317002	-76.816516	1 red brick fragment; Very light oyster shell scatter; Edge of rocky outcrop
38.317032	-76.816094	1 red pasted black lead glazed earthenware body sherd; Occasional oyster shell scatter

38.317034	-76.816348	1 red brick fragment; Very light oyster shell scatter
38.317047	-76.816227	1 red brick fragment; Occasional oyster shell scatter
38.317067	-76.819009	Occasional oyster shell scatter; Edge of rocky outcrop
38.317097	-76.818839	1 oyster shell fragment; Edge of rocky outcrop
38.317100	-76.816115	1 olive green bottle glass body fragment, heavily patinated; Light red brick scatter
38.317117	-76.815767	3 red brick fragments; 1 oyster shell fragment; Edge of rocky outcrop
38.317130	-76.818845	1 oyster shell fragment; Edge of rocky outcrop
38.317132	-76.817786	1 oyster shell fragment
38.317142	-76.818093	1 oyster shell fragment
38.317155	-76.818350	1 quartzite secondary flake, large
38.317164	-76.818414	1 oyster shell fragment
38.317168	-76.819106	1 oyster shell fragment; Middle of rocky outcrop
38.317179	-76.818108	1 dark olive green bottle glass body fragment; 1 oyster shell fragment
38.317182	-76.817942	1 quartz shatter; Occasional oyster shell scatter
38.317217	-76.817041	1 red brick fragment; Occasional oyster shell scatter; Edge of rocky outcrop
38.317236	-76.816722	Light to moderate red brick scatter, with large brick fragments; Occasional oyster shell scatter
38.317242	-76.817125	1 red brick fragment; Edge of rocky outcrop
38.317252	-76.817010	1 Buckley, red pasted black lead glazed earthenware body sherd; Edge of rocky outcrop
38.317255	-76.815843	1 red brick fragment; Edge of rocky outcrop
38.317258	-76.819046	Very light oyster shell scatter
38.317259	-76.817025	Light red brick scatter; Occasional oyster shell scatter; Edge of rocky outcrop
38.317266	-76.816845	1 red brick fragment; Very light oyster shell scatter
38.317266	-76.816771	Light to moderate red brick scatter, with large brick fragments; Occasional to very light oyster shell scatter
38.317276	-76.818954	1 quartzite biface; 1 quartz secondary flake; Occasional oyster shell scatter
38.317282	-76.819154	1 Buckley-like red pasted black lead glazed earthenware body sherd; Moderate to heavy oyster shell scatter; Edge of rocky outcrop
38.317287	-76.818809	1 oyster shell fragment
38.317288	-76.816545	Light to moderate red brick scatter
38.317291	-76.816289	2 red brick fragments; 1 salmon colored brick fragment; Occasional oyster shell scatter
38.317324	-76.818660	1 red brick fragment; 1 oyster shell fragment
38.317339	-76.815625	Middle of rocky outcrop
38.317349	-76.815849	1 quartz secondary flake
38.317350	-76.816341	Moderate to heavy oyster shell scatter, localized
38.317363	-76.818181	1 quartz shatter; 1 red brick fragment
38.317376	-76.817954	1 red brick fragment
38.317401	-76.819441	Edge of rocky outcrop
38.317420	-76.815349	1 colorless glass body fragment, modern - 30-40 feet northeast of rock edge
38.317480	-76.816988	Light to moderate red brick scatter, with glazed bricks
38.317491	-76.816780	1 quartz secondary flake or shatter

38.317501	-76.816552	1 red brick fragment; Occasional oyster shell scatter
38.317503	-76.819479	1 oyster shell fragment
38.317542	-76.816050	1 quartz tertiary flake
38.317543	-76.819638	1 oyster shell fragment
38.317548	-76.816102	1 quartz secondary flake; 1 red brick fragment
38.317550	-76.819264	Occasional to very light oyster shell scatter
38.317562	-76.819155	Very light oyster shell scatter
38.317570	-76.819068	Very light oyster shell scatter
38.317575	-76.818789	Occasional oyster shell scatter
38.317592	-76.815677	1 quartzite fire cracked rock, possibly worked
38.317600	-76.818431	1 quartzite fire crack rock; 1 oyster shell fragment
38.317601	-76.815230	1 oyster shell fragment
38.317608	-76.815602	1 chert primary flake
38.317620	-76.818514	1 quartzite primary flake; Occasional oyster shell scatter
38.317624	-76.818672	1 oyster shell fragment
38.317632	-76.815052	1 quartz cobble, worked; Very light oyster shell scatter
38.317646	-76.818610	Light to moderate oyster shell scatter, localized
38.317659	-76.815142	Occasional oyster shell scatter
38.317665	-76.817797	1 oyster shell fragment
38.317665	-76.817714	2 red brick fragments; 1 possible architectural sandstone; 2 oyster shell fragments
38.317666	-76.818641	Occasional oyster shell scatter
38.317692	-76.818614	Light to moderate oyster shell scatter, localized
38.317705	-76.817532	1 red brick fragment
38.317710	-76.814498	1 possible quartzite fire cracked rock
38.317712	-76.817491	1 creamware body sherd; Occasional red brick scatter
38.317722	-76.817456	2 red brick fragments
38.317725	-76.814328	1 quartz shatter
38.317741	-76.819279	Edge of gravel
38.317749	-76.817324	1 red brick fragment
38.317754	-76.817417	1 red brick fragment
38.317768	-76.819416	Occasional oyster shell scatter; Middle of gravel
38.317769	-76.819494	Occasional to very light oyster shell scatter; Edge of gravel
38.317773	-76.816482	1 glazed red brick fragment
38.317812	-76.816364	1 quartz shatter; 1 oyster shell fragment
38.317832	-76.815897	Occasional red brick scatter
38.317834	-76.816160	1 quartz secondary flake; 1 oyster shell fragment
38.317844	-76.816053	1 quartzite fire cracked rock
38.317845	-76.815729	1 quartz primary flake; 1 quartz shatter; 1 oyster shell fragment
38.317864	-76.815356	1 quartzite fire cracked rock
38.317885	-76.815265	1 quartzite primary flake; 2 red brick fragments
38.317891	-76.818079	1 oyster shell fragment

38.317905	-76.815094	1 very dark olive green bottle glass body fragment; 1 red brick fragment; 1 oyster shell fragment
38.317908	-76.815173	1 red brick fragment
38.317967	-76.814816	1 oyster shell fragment
38.318004	-76.817520	1 possible architectural sandstone, square-shaped
38.318033	-76.816271	1 unidentified rock and possible ceramic conglomerate
38.318106	-76.816032	1 quartz shatter
38.318107	-76.815588	1 quartz shatter; 1 oyster shell fragment
38.318110	-76.815774	1 quartzite fire cracked rock
38.318115	-76.815717	1 red brick fragment
38.318223	-76.814762	1 red brick fragment
38.318249	-76.815790	1 quartzite core; 1 red brick fragment
38.318265	-76.815938	1 quartz core
38.318280	-76.814089	1 quartz Normanskill or Clagett projectile point, 41 x 21 x 11.5 mm - given to property owner
38.318356	-76.816239	Occasional to very light oyster shell scatter
38.318362	-76.816411	2 oyster shell fragments
38.318434	-76.815559	1 oyster shell fragment
38.318465	-76.814468	1 quartzite secondary flake
38.318482	-76.815128	1 quartzite fire cracked rock
38.318529	-76.814607	1 quartzite primary flake or fire cracked rock
38.318628	-76.815680	Occasional oyster shell scatter
38.318652	-76.815468	Very light to light oyster shell scatter
38.318661	-76.815143	1 oyster shell fragment
38.318671	-76.815809	1 oyster shell scatter
38.318678	-76.815259	Very light to light oyster shell scatter
38.318686	-76.815374	Light oyster shell scatter
38.318694	-76.815586	Occasional to very light oyster shell scatter
38.318703	-76.815135	1 oyster shell fragment
38.318894	-76.815903	1 oyster shell fragment
38.318933	-76.815426	Occasional oyster shell scatter
38.318944	-76.815538	Occasional to very light oyster shell scatter
38.318952	-76.815588	Occasional to very light oyster shell scatter
38.318956	-76.815306	1 oyster shell fragment
38.318972	-76.815830	Occasional oyster shell scatter

18ST883 - Wicomico Fields 2 site -Surface Survey Catalog

38.319543	-76.815420	Occasional oyster shell scatter
38.319547	-76.814772	1 quartzite shatter
38.319564	-76.815408	Very light to light oyster shell scatter
38.319622	-76.814440	1 quartz shatter

38.319641	-76.814167	1 quartz shatter
38.319660	-76.815395	Occasional to very light oyster shell scatter
38.319678	-76.814110	2 red brick fragments, large
38.319693	-76.815094	Occasional oyster shell scatter
38.319783	-76.815105	Occasional oyster shell scatter
38.319846	-76.814425	1 possible quartz core

18ST889 - Little Hackley 1 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.237675	-76.773047	1 oyster shell fragment
38.237875	-76.773189	Occasional oyster shell scatter
38.237964	-76.773269	1 oyster shell fragment
38.238108	-76.771888	1 oyster shell fragment
38.238458	-76.773912	1 oyster shell fragment
38.238489	-76.774118	1 oyster shell fragment
38.238500	-76.774127	1 chrome painted refined earthenware body sherd, floral design in red, green, and black (1830-1860)
38.238500	-76.774074	1 quartz tertiary flake
38.238510	-76.775227	1 quartz shatter; Occasional oyster shell scatter
38.238594	-76.775131	1 plain whiteware body sherd
38.238618	-76.775203	1 unidentified conglomerate stone fire cracked rock
38.238636	-76.775209	Occasional to very light oyster shell scatter
38.238652	-76.774743	Occasional to very light oyster shell scatter
38.238714	-76.774835	Occasional oyster shell scatter
38.238733	-76.775316	Occasional to very light oyster shell scatter
38.238751	-76.774466	1 oyster shell fragment
38.238790	-76.775312	Very light oyster shell scatter
38.238813	-76.774485	Occasional oyster shell scatter
38.238841	-76.774985	Occasional oyster shell scatter
38.238843	-76.774504	Occasional oyster shell scatter
38.238845	-76.775353	1 quartz tertiary flake; Very light oyster shell scatter
38.238857	-76.773105	1 oyster shell fragment
38.238887	-76.774559	Occasional oyster shell scatter
38.238896	-76.774391	2 red brick fragments
38.238899	-76.773553	1 molded blue/green bottle glass body fragment; 1 molded brown bottle glass body fragment; 1 oyster shell fragment
38.238920	-76.774117	1 oyster shell fragment
38.238939	-76.775398	Occasional to very light oyster shell scatter
38.238945	-76.775054	Occasional oyster shell scatter
38.238952	-76.774622	1 oyster shell fragment
38.239008	-76.775134	1 quartzite fire cracked rock; occasional oyster shell scatter

38.239015	-76.775463	1 quartz shatter or uniface; Occasional to very light oyster shell scatter
38.239020	-76.775109	Occasional to very light oyster shell scatter
38.239029	-76.773531	1 oyster shell fragment
38.239051	-76.773406	1 oyster shell fragment
38.239072	-76.773549	1 red brick fragment; 1 oyster shell fragment
38.239087	-76.773871	1 aqua colored glass body fragment; 1 colorless case bottle glass body fragment
38.239152	-76.773951	1 unidentified refined earthenware body sherd, hand painted blue on white, burnt; 1 aqua colored glass body fragment; Occasional oyster shell scatter
38.239175	-76.774057	1 quartzite shatter; 1 milk glass body fragment; 1 large concrete fragment; 1 oyster shell fragment
38.239186	-76.773061	1 oyster shell fragment
38.239209	-76.775282	1 oyster shell fragment
38.239262	-76.773634	1 colorless glass body fragment
38.239285	-76.774118	1 colorless glass body fragment
38.239293	-76.773182	1 oyster shell fragment
38.239299	-76.775675	1 oyster shell fragment
38.239312	-76.774129	1 aqua colored glass body fragment
38.239441	-76.775805	Occasional to very light oyster shell scatter
38.239503	-76.773437	1 porcelain body sherd, red/pink painted or transfer-printed design
38.239524	-76.775520	Occasional oyster shell scatter
38.239552	-76.773447	1 oyster shell fragment
38.239553	-76.774562	1 melted colorless glass body fragment
38.239613	-76.775613	Very light to light oyster shell scatter
38.239629	-76.775653	Light oyster shell scatter
38.239646	-76.775941	Occasional to very light oyster shell scatter
38.239702	-76.773707	Occasional oyster shell scatter
38.239726	-76.775996	Very light oyster shell scatter
38.239726	-76.775706	Light oyster shell scatter
38.239738	-76.774757	1 molded colorless glass body fragment
38.239749	-76.773315	1 unidentified gray salt-glazed stoneware body sherd, probably North American
38.239769	-76.773337	1 red brick fragment
38.239818	-76.775804	Very light oyster shell scatter
38.239836	-76.776048	Very light oyster shell scatter
38.239908	-76.775286	Occasional to very light oyster shell scatter
38.239932	-76.775369	Light to moderate oyster shell scatter
38.239948	-76.775856	Very light to light oyster shell scatter
38.239956	-76.775389	Light to moderate oyster shell scatter
38.240045	-76.775475	Light to moderate oyster shell scatter
38.240056	-76.776205	Occasional to very light oyster shell scatter
38.240098	-76.775543	Light oyster shell scatter
38.240115	-76.775107	Occasional to very light oyster shell scatter
38.240120	-76.775173	Very light oyster shell scatter

38.240133	-76.775552	Occasional oyster shell scatter
38.240253	-76.775856	1 red brick fragment; Occasional oyster shell scatter
38.240265	-76.776157	Occasional to very light oyster shell scatter
38.240272	-76.775277	1 white salt-glazed stoneware body sherd; Occasional oyster shell scatter
38.240323	-76.776179	Very light oyster shell scatter
38.240391	-76.775427	1 quartz biface or worked cobble, large
38.240658	-76.774699	1 oyster shell fragment
38.241082	-76.775263	1 whiteware body sherd with gilded decoration

18ST889 - Little Hackley 1 site - Shovel Test Pit Catalog, yard area

Lot	Northing	Easting	Catalog
1	1000	1000	1 thin flat plastic fragment, white; 17 oyster shell fragments, 10.3 grams
2	1000	1025	1 rhyolite tertiary flake; 1 orange pasted micaceous earthenware body sherd, thin, possibly flower pot; 1 creamware body spall, undecorated; 1 unidentified white refined earthenware body sherd, possibly creamware or burnt; 1 modern brown bottle glass body fragment; 4 red brick fragments, 1.1 grams; 2 oyster shell fragments, 1.3 grams
3	1000	1050	1 red pasted micaceous earthenware body sherd, burnished or burnt, possibly Merida Micaceous or unidentified Iberian olive jar; 1 creamware body spall, undecorated; 1 unidentified colorless to light blue glass body fragment, bulbous shape, possible oil lamp; 2 colorless table glass body fragments, thin; 1 modern colorless bottle glass body fragment, molded; 1 green-tinted window glass fragment; 1 unidentified square nail head and midsection, very corroded; 1 iron wire staple; 1 copper alloy bullet shell casing, 5mm diameter; 5 red brick fragments, 24.0 grams; 6 shell-lime mortar fragments, 7.5 grams; 70 oyster shell fragments, 92.5 grams
4	1000	1075	1 quartz shatter; 1 quartzite or orthoquartzite tertiary flake; 9 thick light gray pasted, slightly vitrified, unidentified thick white glazed stoneware body sherds, modern; 2 colorless bottle glass body fragments, modern; 2 colorless table glass body fragments, thin; 3 unidentified iron nail fragments, very corroded, 1 has a round head; 27 red brick fragments, 28.3 grams; 18 oyster shell fragments; 11.2 grams; 1 coal fragment, 0.4 grams; 1 charcoal fragment, < 0.1 grams
5	1000	1100	1 jasper primary flake; 1 shell-lime mortar fragment, 13.1 grams; 2 oyster shell fragments, 0.9 grams
	1000	1125	No Artifacts

Grid 1000, 1000 coordinate = N 38.237632, W 76.775322 using WGS84
Grid 1000, 1125 coordinate = N38.237818, W 76.774956 using WGS84

18ST890 - Little Hackley 2 site - Surface Survey Catalog

Latitude	Longitude	Catalog
38.240718	-76.772464	1 red brick fragment
38.240739	-76.770981	Very light oyster shell scatter
38.240844	-76.770991	Very light oyster shell scatter
38.240848	-76.771122	1 plain porcelain body sherd; Occasional oyster shell scatter
38.241014	-76.770759	Occasional oyster shell scatter

38.241042	-76.770801	1 oyster shell fragment
38.241048	-76.770763	Very light oyster shell scatter
38.241240	-76.771178	1 oyster shell fragment
38.241277	-76.773682	1 quartzite fire cracked rock; 1 oyster shell fragment
38.241468	-76.771020	1 oyster shell fragment
38.241564	-76.771696	1 oyster shell fragment
38.241591	-76.771223	1 oyster shell fragment
38.241645	-76.770862	1 oyster shell fragment
38.241695	-76.771867	1 oyster shell fragment
38.241799	-76.771537	1 aqua colored glass body fragment; 1 oyster shell fragment
38.241820	-76.770621	2 true blue glass body fragments
38.241859	-76.771575	2 aqua colored glass body fragments; 1 manganese glass body fragment; Light oyster shell scatter
38.241931	-76.771637	1 aqua colored glass body fragment; Light oyster shell scatter
38.241935	-76.771102	1 plain porcelain body sherd; 2 oyster shell fragments
38.241956	-76.771728	1 unidentified refined earthenware body sherd, cream-colored; Very light to light oyster shell scatter
38.241967	-76.771697	1 aqua colored glass body fragment; Very light to light oyster shell scatter
38.241976	-76.768486	1 oyster shell fragment
38.242004	-76.768524	2 oyster shell fragment
38.242020	-76.768504	1 oyster shell fragment
38.242044	-76.768998	Occasional oyster shell scatter
38.242069	-76.771308	Occasional oyster shell scatter
38.242075	-76.770489	2 oyster shell fragment
38.242079	-76.771323	Very light oyster shell scatter
38.242079	-76.768677	1 oyster shell fragment
38.242087	-76.771420	1 porcelain body sherd, hand-painted blue on white floral design; Very light oyster shell scatter
38.242098	-76.769125	Occasional oyster shell scatter
38.242146	-76.771459	1 grit tempered buff to red pasted ceramic or brick fragment; 1 colorless glass body fragment; Very light oyster shell scatter
38.242150	-76.769123	Very light oyster shell scatter
38.242160	-76.769267	Occasional oyster shell scatter
38.242162	-76.770088	2 oyster shell fragment
38.242247	-76.769171	Light oyster shell scatter
38.242265	-76.771581	1 red brick fragment; Very light oyster shell scatter
38.242329	-76.769912	Occasional oyster shell scatter
38.242330	-76.771256	1 porcelain handle fragment; Occasional oyster shell scatter
38.242390	-76.769021	1 oyster shell fragment
38.242416	-76.768961	1 oyster shell fragment
38.242428	-76.771341	1 oyster shell fragment
38.242436	-76.770054	Occasional to very light oyster shell scatter
38.242444	-76.769515	1 red brick fragment, probably modern

38.242489	-76.770563	Occasional oyster shell scatter
38.242549	-76.770190	Occasional to very light oyster shell scatter
38.242572	-76.770599	Occasional to very light oyster shell scatter
38.242741	-76.770763	Occasional to very light oyster shell scatter
38.242789	-76.770850	Very light oyster shell scatter
38.242843	-76.770524	Occasional oyster shell scatter
38.242853	-76.770926	Occasional to very light oyster shell scatter
38.242998	-76.770642	Occasional oyster shell scatter
38.243085	-76.770721	Occasional oyster shell scatter
38.243330	-76.770620	1 oyster shell fragment
38.243849	-76.769689	1 red brick fragment

Appendix V.
Sample Survey Log

Page_____

ST. MARY'S COLLEGE OF MARYLAND
LUGM Surface Survey Field Catalog Sheet

Principal Investigator: _Strickland_____ Project: _____

Site Number: _____ Area: _____ Datum: _WGS84_____

Date Cataloged: _____ Cataloguer: _Strickland_____ Crew: _____

Latitude (N)	Longitude (W)	Artifact Description

Appendix VI.
Qualifications

Scott Strickland **48664 Packer Court, St. Inigoes, MD 20684**
stricklandscottm@gmail.com **240-925-7548**

EDUCATION

Master of Science (Distinction) *2012*
Archaeological Computing – Spatial Technologies
University of Southampton, *Southampton, United Kingdom*

Bachelor of Arts *2008*
Sociology/Anthropology
St. Mary's College of Maryland, *St. Mary's City, Maryland*

Associates Degree *2006*
Social Sciences
College of Southern Maryland, *La Plata, Maryland*

ARCHAEOLOGICAL AND RELATED EXPERIENCE AND EMPLOYMENT

Project Researcher/GIS Manager (NPS - Nanjemoy Indigenous Cultural Landscapes) *March 2015-Present*
St. Mary's College of Maryland, *St. Mary's City, Maryand*

Contract Archaeologist (Maryland Historical Trust CLG grant) *Jan. 2015 - Present*
St. Mary's County Department of Land Use & Growth Management, *Leonardtown, Maryland*
St. Mary's College of Maryland, *St. Mary's City, Maryland*

Project Archaeologist (NEH – Colonial Encounters, Potomac)/Adjunct Instructor *Jan. 2013 – May 2015*
St. Mary's College of Maryland, *St. Mary's City, Maryland*

GIS Technician *July 2014-Oct. 2014*
Duke Cultural Resource Management, *Rancho Santa Margarita, California*

Archaeological/Records Consultant *2012-Present*
Self-Employed, *Lexington Park/California, Maryland*

Historical Researcher/Project Archaeologist (Zekiah Archaeological Survey) *2009-2012*
Smallwood Foundation, *Waldorf, Maryland*

Historical Researcher/Archaeologist (Zekiah Archaeological Survey) *2008-2009*
Wetherburn Associates LLC., *Waldorf, Maryland*

Field Supervisor *2008*
St. Mary's College of Maryland, *St. Mary's City, Maryland*

Survey/CAD Technician *2003-2008*
Offenbacher Land Surveying, *Lexington Park, Maryland*

TEACHING EXPERIENCE

GIS: Humans and their Environment *2015*
Department of Anthropology/Environmental Studies *– St. Mary's College of Maryland*

GIS for the Social Sciences *2013-2014*
Department of Anthropology *– St. Mary's College of Maryland*

SELECTED REPORTS

- **2015** Strickland, Scott M.
  Archaeological Assessment and Review of St. Mary's County, Maryland's Cultural Resources. Report prepared for the St. Mary's County Historic Preservation Commission and the Maryland Historical Trust. Report to be completed in June, 2015.
- **2012** Strickland, Scott M.
  A GIS Approach to Late Woodland Settlement Patterns along Maryland's Lower Potomac River. [Thesis] Department of Archaeology, University of Southampton. Southampton, United Kingdom.
- **2012** Flick, Alex J., Skylar A. Bauer, Scott M. Strickland, D. Brad Hatch, and Julia A. King
  "a place now known unto them" The Search for Zekiah Fort. Report prepared for Michael & Virginia Besche, Mr. & Mrs. Don Eckel, Mr. & Mrs. Gaylord Hogue, Mr. & Mrs. Michael J. Sullivan, and Mrs. D.H. Steffens. Report on file, Maryland Archaeological Conservation Laboratory, Jefferson Patterson Park and Museum
- **2011** Strickland, Scott M., and Julia A. King
  An Archaeological Survey of the Charleston Property: Josias Fendall's Dwelling Plantation. Report prepared for Mark & Barbara Hoy, James & Betty Jackson, and The Smallwood Foundation. Report on file, Maryland Archaeological Conservation Laboratory, Jefferson Patterson Park and Museum